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Energy Efficiency Regulations, 2016

Statutory authority

Energy Efficiency Act

Sponsoring department

Department of Natural Resources

REGULATORY IMPACT ANALYSIS STATEMENT

(This statement is not part of the Regulations.)

Executive summary

Issues: The Government of Canada is committed to improving energy efficiency standards for consumer and commercial products, reducing regulatory burden through alignment with the United States, and collaborating with North American partners to take action on climate change. These commitments will provide benefits to Canadians through energy cost savings and improved environmental outcomes, which lead to increased productivity and competitiveness.

Greenhouse gases are primary contributors to climate change, which has an impact on Canada's economy and environment. Greenhouse gas (GHG) emissions associated with the use of energy-using products in Canadian homes and businesses represent a significant portion of national emissions, which will need to be reduced in support of Canada's goal of reducing greenhouse gas emissions to at least 30% below 2005 levels by 2030. Regulating minimum energy performance standards for energy-using products is one of the most cost-effective ways to reduce greenhouse gas emissions. A federal approach provides national consistency and informs provincial and territorial policies and programs related to energy efficiency.

In 2011, the Canada–United States Regulatory Cooperation Council stated that unnecessary regulatory differences and duplicative actions hinder cross-border trade and investment and ultimately impose a cost on our citizens, businesses and economies. Since 2011, the U.S. Department of Energy has implemented changes to its regulations across several product categories. These changes have not yet been made in Canada, which has resulted in an increasing number of unnecessary regulatory differences. In 2014, Natural Resources Canada and the U.S. Department of Energy established a goal of aligning new and updated energy efficiency standards and test methods under the Canada–United States Regulatory Cooperation Council.

Description: The proposed Regulations would (a) increase the stringency of minimum energy performance standards for 20 currently regulated product categories; (b) make minor changes to standards or reporting requirements for 8 currently regulated product categories; and (c) repeal and replace the Regulations to remove references to obsolete and out-of-date standards and to improve the organization of the regulatory text, making it easier for stakeholders to find and understand the requirements that apply to them.

Cost-benefit statement: The benefits and costs associated with the proposed Regulations have been estimated using a methodology consistent with that used by other energy efficiency regulators, such as the U.S. Department of Energy. Based on this methodology, the present value of the net benefits of the proposed Regulations is estimated to be \$1.6 billion by 2030, with total benefits exceeding total costs by a ratio of just over five to one. By 2030, the present value of the benefits and costs from the proposed Regulations is estimated to be \$2.0 billion and \$384 million, respectively. On an annualized average basis, this equates to benefits and costs of \$220 million

and \$42 million, respectively.

The quantified benefits are calculated as the sum of the energy savings over the service life of products shipped by 2030, the benefits of reductions in greenhouse gas emissions, and the reductions in compliance costs associated with unnecessary regulatory differences. The quantified costs include incremental technology costs to meet the proposed standards and incremental costs to Government associated with regulatory implementation. The retail prices for regulated products may increase if incremental technology costs are passed on to consumers. These costs would be more than recovered through energy savings. The analysis found payback ranges of less than 10 years for all product categories, with six product categories having paybacks of two years or less.

The proposed Regulations are estimated to result in an annual reduction of 0.8 Mt of greenhouse gas emissions in 2030. For industries using regulated equipment, improvements in energy efficiency translate into energy and operating cost savings, which in turn lead to increased productivity and competitiveness.

“One-for-One” Rule and small business lens: The proposed Regulations are considered an “OUT” under the “One-for-One” Rule. The change in administrative burden was estimated at about a \$2,800 reduction in annualized average costs to businesses affected by the proposed Regulations.

The small business lens does not apply to this proposal, as there are no costs to small business.

Domestic and international coordination and cooperation: Implementation of this proposal would reduce unnecessary regulatory differences between Canada and the United States, consistent with binational commitments made under the Canada–United States Regulatory Cooperation Council. It would also contribute to international commitments made to reduce GHG emissions. Domestically, this proposal would reduce regulatory differences that exist between federal and provincial regulations, thereby reducing internal barriers to trade.

Background

In 1992, Parliament passed Canada’s *Energy Efficiency Act* (the Act) and amended it in 2009. The Act provides for the making and enforcement of regulations requiring energy-using products that are imported or shipped interprovincially for the purpose of sale or lease to meet minimum energy performance standards (MEPS), ([see footnote 1](#)) for product labelling, and for the promotion of energy efficiency and alternative energy use, including the collection of data and statistics on energy use.

The *Energy Efficiency Regulations* (the Regulations) were introduced in 1995 as a means to reduce greenhouse gas (GHG) emissions in Canada. They prescribe MEPS for certain consumer and commercial energy-using products. They also prescribe labelling requirements for certain products to disclose and compare the energy use of a given product model relative to others in their category. The Regulations have been amended regularly to introduce MEPS for new products ([see footnote 2](#)) and to update existing MEPS.

The purpose of MEPS is to eliminate the least efficient products from the market. Since most energy-using products must cross provincial or international borders to reach their markets, federally regulated MEPS are an effective tool to raise the level of energy efficiency in Canada. Regulated MEPS are one component of Canada’s program to reduce GHG emissions and energy consumption associated with energy-using products. Natural Resources Canada also administers the ENERGY STAR® labelling program, which sets voluntary specifications for 70 product categories that identify the top 15 to 30% of energy efficiency performers, making the choice of energy efficient products simple for consumers and businesses.

When combined, MEPS and labelling programs drive product innovation by raising requirements for minimum energy performance and pulling the market forward with labels for top-performing products. Through cycles of continuous improvement, this approach eliminates the least efficient products while encouraging innovation as manufacturers produce products to achieve increasing ENERGY STAR levels, making affordable, higher efficiency products available to consumers and businesses. MEPS and labelling programs are among the most cost-effective GHG reduction policies and are the cornerstone of energy efficiency and climate change programs in more than 80 countries. ([see footnote 3](#))

In August 2014, alignment of energy efficiency standards was included as an initiative in the Canada–United States Regulatory Cooperation Council’s Joint Forward Plan. ([see footnote 4](#)) Specifically, Canada and the U.S. Department of Energy established the goal of aligning new and updated energy efficiency standards and test

methods for energy-using equipment through enhanced information sharing and a cooperative development and implementation process, to the extent practicable and permitted by law.

Issues

GHGs are primary contributors to climate change, which has an impact on Canada's economy and environment. Carbon dioxide, a by-product of fossil fuel consumption, has been identified as the most significant GHG.

Canadian homes and buildings (the built environment) are significant contributors to national GHG emissions. The level of emissions in the built environment is impacted by the energy-using equipment they contain. Equipment that combusts fuel to generate heat leads to direct carbon dioxide emissions at the site, while equipment that consumes electricity contributes to GHG emissions at the point of generation. Total end use sector GHG emissions ([see footnote 5](#)) (including electricity) in 2013 were 487 megatonnes (Mt), with 66 Mt and 43 Mt being attributable to the residential and commercial/institutional sectors, respectively. ([see footnote 6](#)) Therefore, Canadian homes and buildings represented approximately 22% of national end use sector GHG emissions in 2013.

There are market barriers to consumers making optimal economic or environmental choices with respect to energy efficiency. These include a lack of awareness and information available to consumers regarding energy-saving opportunities and actual energy use, a lack of capacity within organizations to understand and manage energy use, and split incentives (e.g. landlords may not purchase efficient equipment if tenants pay the energy bill).

In 2011, the Canada–United States Regulatory Cooperation Council stated that unnecessary regulatory differences and duplicative actions hinder cross-border trade and investment and ultimately impose a cost on our citizens, businesses and economies. ([see footnote 7](#)) Since 2011, the U.S. Department of Energy has implemented changes to its regulations across several product categories. These changes have not yet been made in Canada, which has resulted in an increasing number of unnecessary regulatory differences. ([see footnote 8](#)) In 2014, Natural Resources Canada and the U.S. Department of Energy established a goal of aligning new and updated energy efficiency standards and test methods under the Canada–United States Regulatory Cooperation Council. Natural Resources Canada estimates that, as of January 2016, Canada's regulations align with less than 50% of product categories regulated in the United States.

Objectives

The Government of Canada has committed to improving energy efficiency standards for consumer and commercial products ([see footnote 9](#)) and encouraging energy conservation. ([see footnote 10](#)) The Act provides the authority to make regulations prescribing energy-using products and energy efficiency standards. The Act and the Regulations are enforced by inspectors designated by the Minister of Natural Resources.

The goals of the *Energy Efficiency Regulations, 2016* (the proposed Regulations) are to

- improve MEPS across 20 product categories;
- reduce GHG emissions and energy consumption associated with using those products; and
- eliminate unnecessary regulatory differences between Canadian and U.S. regulations across those categories.

The desired outcomes of the proposed Regulations are as follows:

- GHG emissions are reduced to contribute to Canada's goal to reduce GHG emissions by at least 30% below 2005 levels by 2030;
- Consumers and businesses save money by not purchasing low-efficiency product models that have higher costs over their lifetime; and
- Compliance costs associated with unnecessary regulatory differences are removed.

Regulatory action is required to deliver these outcomes, given that voluntary measures will not be sufficient to phase out low-efficiency product models from the Canadian market. It is also required to address unnecessary regulatory differences between Canada and the United States.

Description

The proposed Regulations would (a) increase the stringency of MEPS for 20 currently regulated product categories, (b) make minor changes to standards or reporting requirements for 8 currently regulated product categories, and (c) repeal and replace the Regulations to remove references to obsolete and out-of-date

standards ([see footnote 11](#)) and to improve the organization of the regulatory text, making it easier for stakeholders to find and understand the requirements that apply to regulated products.

In general, the dates of manufacture prescribed by the proposed Regulations align with dates in the United States, even if those dates have already passed. This has been done to ensure consistency between the regulatory text in Canadian and U.S. regulations. While some dates are in the past, the proposed Regulations would not be implemented retroactively. Product models imported into Canada or shipped between provinces prior to the coming-into-force date of the proposed Regulations are not impacted and consumers would be able to purchase them. Once the stock of any such product models are depleted, consumers would continue to have access to a wide range of product options; however, all would comply with the proposed MEPS.

A) Increasing the stringency of MEPS for currently regulated products

1-7) Appliances: clothes dryers, clothes washers, integrated clothes washer-dryers, commercial clothes washers, ([see footnote 12](#)) dishwashers, freezers and refrigerators (seven product categories)

The proposed Regulations would

- align with the U.S. test procedure changes, dates of manufacture and MEPS for household appliances and commercial clothes washers;
- update reporting requirements by including new energy efficiency metrics for clothes dryers, clothes washers and clothes washer-dryers in order to ensure that the measured energy efficiency and information provided to customers best represent the latest technologies and the way these appliances are used; ([see footnote 13](#)) and
- allow for clothes dryers to be tested to either the Canadian standard or the U.S. alternative test procedure Appendix D2, ([see footnote 14](#)) consistent with the flexibility provided in the United States.

For clothes washers, integrated clothes washer-dryers and commercial clothes washers, two progressively stringent MEPS are being proposed to align with those in the United States. They are presented in this table as two tiers of MEPS, along with their respective proposed effective dates.

Table 1

Product Category	Proposed MEPS would apply to products manufactured on or after the following date:
Dishwashers (see footnote 15)	May 30, 2013
Refrigerators and freezers (see footnote 16)	September 15, 2014
Clothes dryers (see footnote 17)	January 1, 2015
Clothes washers (see footnote 18)	March 7, 2015 (Tier I) January 1, 2018 (Tier II)
Integrated clothes washer-dryers	March 7, 2015 (dryer and Tier I washer) January 1, 2018 (Tier II washer)
Commercial clothes washers	January 8, 2013 (Tier I) (see footnote 19) January 1, 2018 (Tier II)

8) Central air conditioners and heat pumps

Central air conditioners and heat pumps are used in residential applications and are installed as part of a home's central heating and cooling system. For products manufactured on or after January 1, 2017, ([see footnote 20](#)) the proposed Regulations would align with U.S. MEPS and test procedures ([see footnote 21](#)) that have been in effect in since January 2015. The proposed Regulations would not change the MEPS that apply to split-system central air conditioners — the most common type in Canada — since the current MEPS (Seasonal Energy Efficiency Ratio of 13) for that type is already aligned with that of the United States.

9) Chillers

A chiller is used in large commercial and institutional buildings to cool liquid, which can then be circulated through a heat exchanger to cool air or industrial equipment. For products manufactured on or after June 1, 2015, the proposed Regulations would align with American Society of Heating, Refrigeration and Air-Conditioning Engineers (ASHRAE) MEPS ([see footnote 22](#)) that have been in effect in many U.S. states since 2010.

10) Commercial refrigerators, refrigerator-freezers and freezers (self-contained)

Commercial self-contained refrigeration products are used by commercial establishments to keep food cold or frozen. They are commonly found in convenience stores, grocery stores and restaurants as well as in a number of other businesses that sell food in addition to their usual product lines, such as drug stores, gas stations and home hardware stores. For products manufactured on or after January 1, 2012, the proposed Regulations would align with the U.S. MEPS and test procedures ([see footnote 23](#)) that have been in effect since 2012.

11) Electric motors

An electric motor is a device used to power another piece of equipment such as a pump, fan, compressor or conveyor. The Regulations apply to three-phase electric motors of 0.75 kW (1 HP) and up to 375 kW (500 HP). For products manufactured on or after June 1, 2016, the proposed Regulations would align with the MEPS and test procedures that will come into effect in the United States ([see footnote 24](#)) on the same date.

12) Fluorescent lamp ballasts

Fluorescent lamp ballasts start and maintain the flow of electricity to tube lights such as the four-foot long tube lights that are commonly used for overhead lighting in offices and commercial spaces. For products manufactured on or after November 14, 2014, the proposed Regulations would align with the MEPS and test procedures that have been in effect in the United States ([see footnote 25](#)) since 2014.

13) General service fluorescent lamps

General service fluorescent lamps are tube lights that are typically used for general overhead lighting in offices and commercial spaces. A tube light uses fluorescent technology to convert electrical energy into useful light. For products manufactured on or after July 15, 2012, the proposed Regulations would align with the MEPS have been in effect in the United States ([see footnote 26](#)) since 2012. For products manufactured on or after January 26, 2018, the proposed Regulations would align with MEPS and test procedures that will come into effect in the United States on the same date.

14) General service incandescent reflector lamps

General service incandescent reflector lamps are used in track and pot lights in homes and in some commercial settings such as retail displays. For products manufactured on or after July 15, 2012, the proposed Regulations would align with the MEPS and test procedures that have been in effect in the United States ([see footnote 27](#)) since 2012.

15) Ice-makers

Ice-makers produce ice used in commercial applications such as food service, lodging, food sales, and health care. For products manufactured on or after January 28, 2018, the proposed Regulations would align with U.S. MEPS and test procedures ([see footnote 28](#)) that come into effect on the same date.

16) Packaged terminal air conditioners and heat pumps

Packaged terminal air conditioners and heat pumps are room air conditioners used in commercial and institutional buildings such as hotels and nursing homes, where each room needs its own climate control. For

products manufactured on or after September 30, 2012, the proposed Regulations would align with the MEPS and test procedures that have been in effect in the United States ([see footnote 29](#)) since 2012.

17) Refrigerated beverage vending machines

Refrigerated beverage vending machines are used in commercial applications to cool, display and dispense carbonated soft drinks and non-carbonated drinks such as fruit beverages, bottled water, and sports drinks. For products manufactured on or after August 31, 2012, the proposed Regulations would align with the MEPS and test procedures that have been in effect in the United States ([see footnote 30](#)) since 2012.

18) Room air conditioners

Room air conditioners are used by households to cool the air of a single room. They are typically installed in a window. For products manufactured on or after June 1, 2014, the proposed Regulations would align with the MEPS and test procedures that have been in effect in the United States ([see footnote 31](#)) since 2014. They would also include provisions consistent with changes to labelling recently announced by the U.S. Federal Trade Commission ([see footnote 32](#)) by allowing labels to appear either on product packaging or on the product itself.

19) Gas-fired storage water heaters

Residential gas-fired storage water heaters provide domestic hot water for use in cooking, cleaning and bathing, using natural gas or propane as the fuel source. For products manufactured on or after April 16, 2017, the proposed Regulations would align average and large volume ([see footnote 33](#)) water heaters with the U.S. MEPS ([see footnote 34](#)) for average volume tanks that have been in effect since 2015. The United States has implemented more stringent MEPS for large volume tanks that would not apply in Canada.

20) Oil-fired water heaters

Residential oil-fired water heaters provide domestic hot water for use in cooking, cleaning and bathing, using oil as the fuel source. For products manufactured on or after April 16, 2017, the proposed Regulations would align with the MEPS ([see footnote 35](#)) that have been in effect in the United States since 2015.

B) Make minor changes to the scope of standards or content of reporting requirements

1) Electric ranges

The current Regulations define two size categories of electric ranges based on the product model's width: 60.96 cm (24 in.) and 76.2 cm (30 in.). These size categories are reported for labelling purposes to ensure that product models of the same size are compared against each other. Two new sizes of electric ranges have emerged in the market: 91.44 cm (36 in.) and 121.92 cm (48 in.). To ensure that product models in those size categories are compared against others of similar size, the proposed Regulations would add these two size categories.

2) Exit signs

The *National Building Code of Canada* now includes the "running person" pictogram in addition to the traditional "EXIT" or "SORTIE" in its scope of exit signs allowed for use in buildings. The "running person" is not captured in the current definition of an exit sign under the Regulations, which means that any product model including this pictogram is not subject to the current MEPS. The proposed Regulations would amend the definition to include this pictogram, which would align the application of the MEPS with the scope of the *National Building Code*.

3) External power supplies

The current Regulations require that external power supplies be tested in accordance with CAN/CSA C381.1, *Test method for calculating the energy efficiency of single-voltage external ac-dc and ac-ac power supplies*. There are minor differences between the current U.S. test procedure and the one prescribed by the Regulations. Those differences do not significantly impact the measurement of energy efficiency performance; however, industry raised concerns about the application of these different rules and advocated for flexibility. The proposed Regulations would provide this flexibility by allowing external power supplies to be tested to either the current Canadian test standard (CAN/CSA C381.1) or the U.S. test procedure Appendix Z. ([see footnote 36](#))

4) Gas fireplaces

The current Regulations require that, for each gas fireplace imported into Canada or shipped between provinces, regulatees provide information on whether the ignition for the product model is achieved by a standing pilot or an intermittent ignition device. With only those options, two new types of ignition systems — on-demand pilot and remotely operated pilot — exist on the market but cannot be reported. Further, these new ignition systems are not specifically covered by the testing standard referenced by the Regulations (CSA P.4.1-02, *Testing Method for Measuring Annual Fireplace Efficiency*). In response to industry concerns related to these issues, the proposed Regulations would reference the most recent version of the CSA standard CAN/CSA P.4.1-15 and allow for testing and reporting of product models that include these two new types of ignition systems.

5) Gas furnaces (through-the-wall)

Through-the-wall gas furnaces are typically used in multi-unit residential buildings. They are designed to be installed in a standard-sized opening in the exterior wall of each residential unit. The current Regulations require that all through-the-wall gas furnaces comply with an annual fuel utilization efficiency of at least 90%. Industry raised concerns that the commercialization of technology that achieves this level of efficiency without increasing the physical size of the product has occurred at a slower pace than initially anticipated. Therefore, buildings with existing exterior wall openings that cannot accept larger products have had difficulties sourcing equipment for retrofit applications. In response to industry and building owner requests for flexibility to continue providing products to the retrofit market, the proposed Regulations would reduce the MEPS for replacement units manufactured on or after December 31, 2009, to an annual fuel utilization efficiency standard of 78%, from 90%. ([see footnote 37](#))

6) General service lamps

The proposed Regulations would introduce third-party verification for general service lamps (i.e. light bulbs). Third-party verification requirements are common to all other regulated product categories, which supports the regulatory compliance strategy. MEPS for general service lamps apply to 75 W and 100 W light bulbs manufactured on or after January 1, 2014, and to 40 W and 60 W light bulbs manufactured on or after December 31, 2014. When the original MEPS were established in 2008, Natural Resources Canada gave notice that these requirements would be included in a future amendment. Third-party verification ensures that the product, offered for sale or lease in Canada, meets the MEPS prescribed in the Regulations.

7) Large air conditioners and large heat pumps

The current Regulations apply to all large air conditioners and large heat pumps with a cooling capacity of 19 kW (65 000 Btu/h) or more. The U.S. definition includes an upper limit of 223 kW (760 000 Btu/h). There is no such upper limit in the current Regulations, which means that product models with a cooling capacity above 223 kW are subject to MEPS in Canada but not in the United States. The proposed Regulations would align with the United States by reducing the scope of large air conditioners and large heat pumps to only include units with a cooling capacity of less than 223 kW.

8) Televisions

Since April 2012, the current Regulations have required the reporting of nine data elements to the Minister of Natural Resources on the active energy usage of televisions. That information must be collected by using a California Energy Commission test procedure. In October 2013, the U.S. Department of Energy published a Final Rule, prescribing a different test procedure than that required in Canada to quantify active energy usage. The proposed Regulations would remove these nine data elements from reporting requirements as well as the references to the California Energy Commission test procedure. The six data elements that are not related to active energy usage would still need to be reported.

C) Repeal and replace the Regulations

To make the Regulations easier to use, the proposed Regulations would simplify and clarify the requirements applicable to all prescribed energy-using products by repealing and replacing the Regulations with the *Energy Efficiency Regulations, 2016*. The proposed Regulations group all references to a product in one place (MEPS, effective dates, test methods and energy performance reporting). This would make it easier for stakeholders to find regulatory requirements, thereby providing greater clarity on the requirements that apply to regulated products.

As part of the repeal and replacement of the Regulations, the following maintenance is proposed:

- In response to concerns raised by the Standards Council of Canada, 45 references to obsolete or out of date standards from the Canadian Standards Association (CSA), the Canadian Gas Association (CGA) and other standards development organizations would be removed from the Regulations.
- Referenced standards would be updated to the most recent versions available for dry-type transformers, gas furnaces, pedestrian modules, traffic signal modules, and standby power measurements.
- Verification mark ([see footnote 38](#)) requirements would be modified. The Regulations require that the verification mark signify that a product is in compliance with the MEPS. While this means that all product models with a verification mark have a measured energy performance at or better than the prescribed MEPS, it does not signify that the specific measured performance that is reported has been verified by a third party. The proposed Regulations would address this by requiring that the verification mark signify that the reported energy performance has been verified by the certification body. No physical change would be required to the verification mark.
- Repeal the regulations relating to digital television adapters. When the MEPS for this product were established, it was acknowledged that there would be a limited impact on the market, since this product is specifically designed to allow analogue televisions to receive over-the-air digital signals. ([see footnote 39](#)) Recent studies have shown a dramatic decline in the sales of digital television adapters as analogue televisions are being retired from the market. Natural Resources Canada is proposing that the regulated requirements for these products be repealed.

Regulatory and non-regulatory options considered

Maintaining the status quo

This option would lead to fewer reductions in GHG emissions and energy consumption than taking regulatory action and would not address the compliance costs associated with unnecessary regulatory differences between Canada and the United States.

Since 2010, the market share of product models that would not meet the proposed MEPS has declined under the status quo. These changes in market share can be attributed to a combination of (a) the regulated industry making changes to its product offerings in response to signals from Natural Resources Canada that regulatory changes would be made; ([see footnote 40](#)) and (b) the regulated industry providing Canada with product models that would comply with more stringent U.S. MEPS. While the market share of product models that would not meet the proposed MEPS has declined, many products that do not meet them remain in the Canadian market. A regulatory approach would provide incremental benefits to the status quo approach, since it would ensure that all products on the market meet the proposed MEPS.

The status quo option would also maintain an uneven playing field across regulated markets. Businesses that updated product offerings in preparation for regulatory changes have made investments that, in some cases, direct competitors did not. Further, as new regulations have come into effect in the United States, the number of unnecessary regulatory differences between the two countries has increased.

Voluntary approach (repeal Regulations)

Under this approach, Canada would repeal the Regulations and rely on voluntary measures to reduce GHG emissions and energy consumption associated with energy-using products. This option would eliminate compliance costs associated with unnecessary regulatory differences; however, it would not address GHG emissions and energy consumption to the extent that a regulatory approach would.

A voluntary approach would result in fewer GHG emission reductions than remaining with the status quo or taking a regulatory approach. Studies have shown that in countries where MEPS have been introduced for the first time, significant energy efficiency improvements have been observed. For example, a 32% energy efficiency improvement was achieved in one year (1994–1995) when Mexico first implemented MEPS for four product categories. ([see footnote 41](#)) Such improvements have translated to large reductions in energy consumption and GHG emissions. Globally, the most mature national MEPS and labelling programs covering a broad range of products are estimated to save between 10% and 25% of national energy consumption. ([see footnote 42](#)) There is strong evidence to show that significant and sustained improvements in energy efficiency occur where MEPS are subject to ongoing revision and updating to keep pace with the rate of improvement in new products entering a market. ([see footnote 43](#)) Given the global evidence of significant benefits of MEPS, a voluntary approach would mean that these benefits would not be realized.

Incremental compliance costs associated with unnecessary regulatory differences between Canada and the

United States occur only in situations where both countries enforce mandatory requirements. There are product categories currently regulated in the United States that are not regulated in Canada. [\(see footnote 44\)](#) In these cases, the regulatory regimes are different in each country but do not create a burden for industry since no energy efficiency requirements need to be satisfied in Canada. Therefore, compliance costs associated with unnecessary regulatory differences could be permanently eliminated by repealing the Regulations.

Proposed regulatory action

Taking regulatory action to increase the stringency of MEPS for these 20 product categories would lead to incremental benefits beyond the status quo.

The proposed regulatory action would also reduce compliance costs associated with unnecessary regulatory differences since it would align the requirements for 20 product categories with those of the United States. As a result, industry would no longer be required to satisfy different regulatory requirements to offer the same products in the United States and Canada.

This option would address costs associated with unnecessary regulatory differences; however, subsequent amendments could be required to ensure such differences do not occur again in the future. This option also provides the largest reductions in GHG emissions and energy consumption of the three options considered.

Benefits and costs

Summary

Reduced energy consumption, GHG emissions and unnecessary regulatory differences would result in significant net benefits over the lifetime of affected product models. The benefits would vary by individual user depending on end-use sector, geographical location and/or operational practices.

Annual reductions in energy consumption associated with the proposed Regulations would be 4.1 petajoules (PJ) in 2020, increasing to 10.2 PJ in 2030, as the sale of more efficient equipment steadily replaces the pre-regulation stock.

Annual reductions in GHG emissions resulting from these reductions in energy consumption are estimated to be 0.3 Mt in 2020, increasing to 0.8 Mt in 2030. It is estimated that, by applying a social cost of carbon to these reductions, the cumulative present value of economic benefits associated with GHG emission reductions would be \$296 million by 2030. [\(see footnote 45\)](#)

Canadian consumers would also realize economic co-benefits in the form of reduced energy costs due to the implementation of the proposed Regulations. It is estimated that \$1.7 billion in cumulative present value energy savings would be realized by 2030.

Businesses are estimated to have annual savings of \$1.4 million resulting from the removal of unnecessary regulatory differences, which would result in a cumulative present value of \$12 million by 2030.

The cumulative present value of incremental technology costs and costs to Government associated with the proposed Regulations are estimated to be \$384 million and \$0.1 million, respectively, by 2030.

The present value of net benefits of the proposed Regulations is estimated to be \$1.6 billion by 2030, with total benefits exceeding total costs by a ratio of just over five to one. By 2030, the present value of benefits and costs from the proposed Regulations is estimated to be \$2 billion and \$384 million, respectively.

For all product categories affected by the proposed Regulations, the analysis found that the reduction in energy costs over the lifetime of the product would be greater than any additional costs to manufacturers to bring non-compliant product models into compliance with the proposed MEPS. The retail prices for regulated products may increase if incremental technology costs are passed on to consumers. These costs would be more than recovered through energy savings within the life of the product. [\(see footnote 46\)](#) The analysis found payback ranges of less than 10 years for all product categories, with six product categories having paybacks of two years or less.

Benefits and costs associated with the proposed Regulations are presented in Table 2.

Table 2: Summary of benefits and costs associated with the proposed Regulations

Monetized benefits	Costs	Quantified benefits
<i>Pre-tax fuel (gas and electricity) savings</i>	<i>Technology costs</i>	<i>Energy savings (PJ)</i>
<i>Avoided GHG damages</i>	<i>Installation costs (if applicable)</i>	<i>GHG savings (Mt)</i>
<i>Avoided costs associated with removal of unnecessary regulatory differences</i>	<i>Government administration</i>	

Interested parties seeking more details on this analysis can request a copy of the cost-benefit analysis document by contacting the individual named at the end of this document.

Methodology, assumptions and data

Natural Resources Canada analyzed the economic gains to be made through the proposed MEPS and the impact on Canadian society within a cost-benefit analysis framework. The costs and benefits associated with the proposed Regulations were obtained by comparing the following scenarios:

- the business-as-usual case (i.e. excluding the proposed Regulations); and
- the policy case (i.e. the business-as-usual scenario including the proposed Regulations).

Business-as-usual case

The Canadian and U.S. markets for regulated product categories are highly integrated. When the same MEPS are implemented in both countries, it is generally assumed that the same product models will be available to Canadian and American consumers. Even in cases where MEPS are aligned, each country develops regulatory amendments independently and undertakes separate analyses of the potential economic impacts of any proposed changes. For analyses conducted in support of previous amendments to the Regulations, it was assumed that incremental costs and benefits in Canada were fully the result of the Canadian amendments with no spillover effects from the United States. This assumption is consistent with other recent federal regulations ([see footnote 47](#)) and provides an assessment of the full economic impacts of regulatory changes impacting Canadians. Neither Canada nor the United States accounts for costs and benefits carried outside its borders as a result of its regulations. It is recognized that this assumption may underestimate or overestimate changes in the market that might occur in one country in response to similar regulations being announced or implemented in the other. These changes in the market are difficult to estimate but were considered in a sensitivity analysis.

For the purpose of this analysis, Natural Resources Canada will define the business-as-usual case in terms of Canadian market conditions assessed in 2015. The business-as-usual case for these product categories also includes an estimate of costs, if any, associated with unnecessary regulatory differences.

Policy case

The policy case is defined as the application of the proposed MEPS across 20 product categories relative to markets defined by studies completed in 2015. The policy case for product categories for which U.S. regulations are already in effect at the time of this proposal will include benefits, if any, associated with the reduced compliance costs resulting from the removal of unnecessary regulatory differences.

Benchmarks

For all product categories, a benchmark product is chosen to represent the product models that do not meet the proposed MEPS (in some cases multiple benchmarks are chosen). Within those benchmarks, two efficiency levels are considered: (1) the least efficient of their class; and (2) the efficiency of the average unit impacted. The analysis consists of a base case analysis and a sensitivity analysis for each of the 20 product categories covered by the proposed Regulations. Where relevant, regional sensitivities were evaluated (e.g. a water heater would save more energy per year in a colder location).

Social cost of carbon

The social cost of carbon was used to quantify the economic benefits of reducing GHG emissions. It represents an estimate of the economic value of avoided climate change damages at the global level for current and future generations as a result of reducing GHG emissions. The estimated values of the social cost of carbon used in this assessment draw on ongoing work undertaken by Environment Canada ([see footnote 48](#)) in collaboration with a federal interdepartmental working group and in consultation with a number of external academic experts. This work involves reviewing existing literature and other countries' approaches to valuing GHG emissions. Preliminary recommendations, based on current literature and in line with the approach adopted by the U.S. Interagency Working Group on the Social Cost of Carbon, ([see footnote 49](#)) are that it is reasonable to estimate social cost of carbon values at \$38.2/tonne of carbon dioxide equivalent in 2013, increasing each year with the expected growth in damages. ([see footnote 50](#))

Methodology to estimate costs

The additional or "incremental" cost associated with the proposed Regulations was determined as the difference between the cost of the inefficient product model, represented by the selected benchmark, and the cost of a modified version of that product model that would meet the proposed MEPS. For each product category, the potential cost of modifying the benchmark product model so that it meets the proposed MEPS was estimated (e.g. cost of adding extra insulation to a water heater; cost of replacing an inefficient compressor in an air conditioner). These costs were then multiplied by the number of shipments in the business-as-usual case that was estimated to have an energy performance that is worse than what is required by the MEPS. Results were summed across all affected product categories to arrive at the estimate of total costs.

Additional incremental costs related to installation and maintenance costs or to the lifetime of the product were also evaluated, as applicable. Total costs reported as being attributable to the proposed Regulations include manufacturing, compliance and administrative costs as well as those incurred by Government to implement them.

Methodology to estimate benefits

Energy savings for each product category were estimated by calculating the energy used by the selected benchmark product model, by simulating how it would be normally used in a year (e.g. number of operating days). The result is compared to the energy used by the modified version of that product model that would meet the proposed MEPS. The difference was multiplied by the number of shipments in the business-as-usual case that was estimated to have an energy performance that is worse than what is required by the MEPS and the number of years the product is expected to last, in order to arrive at the total energy savings. Results were summed across all affected product categories to arrive at the estimate of total energy saved. This was then monetized by multiplying the results by the cost of energy per unit of energy saved (i.e. dollars per kilowatt-hour).

The reductions in GHG emissions were calculated by applying fuel-specific emissions factors, consistent with those published by Environment Canada, to the resulting energy savings. In the case of reductions attributable to diminished electricity consumption, the reductions were calculated by applying the emission factors associated with the marginal fuels used to generate the electricity that would be saved through the proposed Regulations. GHG emissions were monetized and incorporated into the analysis using a social cost of carbon, as calculated by Environment Canada.

Reductions in compliance costs associated with unnecessary regulatory differences were informed by product-specific studies commissioned by Natural Resources Canada in 2015. Those studies only identified and assessed differences between product testing requirements that currently apply in Canada and the United States. Costs or benefits associated with those differences were deemed to represent the economic impacts per tested product model. Those impacts were multiplied by the number of product models tested on an annual basis and summed across all affected product categories to calculate the total annual benefit of removing unnecessary regulatory differences.

Assumptions

Key assumptions include the following:

- Business-as-usual case reflects Canadian market conditions in 2015;
- Benefits and costs are measured in real constant 2015 dollars;
- A 7% real discount rate;

- Canadian average energy prices, based on data used in the preliminary analysis undertaken by Environment Canada to develop *Canada's Emission Trends 2015*;
- Valuation of the GHG emissions incorporated into the analysis is based on the social cost of carbon as calculated by Environment Canada;
- Incremental costs for more efficient technology and compliance are assumed to be passed on to consumers or end users; and
- Incremental costs associated with more efficient technology were estimated in 2015 and are assumed to be constant, despite evidence ([see footnote 51](#)) that such costs come down with time, owing to improvements in manufacturing processes and economies of scale, as higher volumes of product models with new technology enter the market. This assumption could lead to overestimates of manufacturing costs; however, it provides a conservative assessment of overall net benefits.

Data collection and sources

Data is collected on a product-by-product basis, through market studies. It provides key inputs to the analysis such as market size; the portion of the market that does not meet the MEPS of the proposed Regulations; the benchmarks that best represent that portion of the market; energy savings from the business-as-usual case to the policy case; costs of moving from the business-as-usual case to the policy case; product lifetime; and installation costs.

Results

The methodology described above was applied to all product categories to develop an estimate of the benefits and costs attributable to the proposed Regulations. The results vary by product category depending on the magnitude of the increase in stringency of the MEPS and the estimated portion of the market that would be impacted by the proposed Regulations. The estimated benefits and costs for each product category are presented in Table 3. These results were then aggregated to present the overall impacts of the proposed Regulations in Table 4.

Table 3: Benefits and costs per product category

Product category		Cumulative total for product shipped by 2030 (millions of dollars)		
		Total costs	Total benefits	Total net benefits
Central air conditioners and heat pumps		\$23	\$44	\$21
Chillers		\$2	\$3	\$2
Clothes dryers		\$22	\$55	\$33
Clothes washers (see footnote 52)	Tier I	\$24	\$595	\$572
	Tier II	\$108	\$231	\$123
Commercial clothes washers	Tier I	\$0	\$0	\$0
	Tier II	<\$1	\$20	\$20
Commercial ice-makers		\$4	\$18	\$14

Commercial refrigerators, refrigerator-freezers and freezers (self-contained)		\$0 (see footnote 53)	\$0	\$0
Dishwashers		\$0	\$0	\$0
Electric motors		\$46	\$104	\$59
Fluorescent lamp ballasts		\$4	\$445	\$441
Freezers		\$3	\$7	\$3
Gas-fired storage water heaters		\$43	\$110	\$67
General service fluorescent lamps	Tier I	-\$66 (see footnote 54)	\$58	\$124
	Tier II	\$44	\$52	\$8
Incandescent reflector lamps		\$107	\$216	\$109
Oil-fired water heaters		<\$1	\$3	\$3
Packaged terminal air conditioners and heat pumps		\$0	\$0	\$0
Refrigerators		\$12	\$31	\$19
Room air conditioners		\$7	\$13	\$5
Vending machines		\$0	\$0	\$0
Total of all products		\$384	\$2,005	\$1,621

Table 4: Summary of benefits and costs to Canadians

Costs, benefits and distribution	Aggregate annual totals		Total cumulative present value	Average annualized over period to 2030
	2020	2030	By 2030	

A. Quantified impacts (\$) [millions in 2015 prices]						
Benefits	Pre-tax fuel (gas and electricity) savings	Canadians	\$210	\$207	\$1,697	\$186
	Avoided GHG damages	Canadians	\$36	\$39	\$296	\$33
	Avoided costs associated with removal of unnecessary regulatory differences	Canadians	\$1	\$1	\$12	\$1
Total benefits			\$247	\$248	\$2,005	\$220
Costs	Technology and installation costs	Canadians	\$42	\$55	\$384	\$42
	Compliance and administrative costs	Canadians	\$0	\$0	\$0	\$0
	Government administration	Government	\$0.1	\$0	\$0.1 (see footnote 55)	\$0.01
Total costs			\$42	\$55	\$384	\$42
Net benefits					\$1,621	
B. Quantified impacts (in non-$\text{\\$}$)						
Positive impacts on Canadians	Energy savings (petajoules)		4.1	10.2	89.2	-
	GHG emission reductions (megatonnes)		0.3	0.8	7.0	-

Sensitivity analysis

As discussed above, the analysis assumed that incremental costs and benefits in Canada were fully the result of the Canadian amendments with no spillover effects from the United States. It is recognized that this assumption could underestimate or overestimate changes in the market that might occur in one country in response to similar regulations being announced or implemented in the other. To assess the sensitivity of the total results of this assumption, the number of product models in the Canadian market that would be impacted

by the proposed Regulations was reduced by 25% and 50% for the four proposed MEPS that are not yet in force in either Canada or the United States. The results show the level to which the total costs could be overestimated due to this analytical assumption.

Table 5 shows how the costs and benefits for each of these four product categories change under each of these scenarios. Even if only 50% of the product models are impacted by the proposed Regulations, the total benefit to total cost ratio remains close to five to one (total benefits: \$1,908; total costs: \$337). The sensitivity analysis was not applied to the other proposed MEPS since they are already in effect in the United States. In those cases, the business-as-usual case represents the Canadian market after it has been influenced by U.S. regulations.

Table 5: Business-as-usual case sensitivity analysis

	Costs			Benefits			Net benefits		
	0%	25%	50%	0%	25%	50%	0%	25%	50%
Reduction in the number of product models impacted by the proposed Regulations									
Commercial clothes washers (Tier II)	\$0.01	\$0.01	\$0.01	\$20	\$15	\$10	\$20	\$15	\$10
Commercial ice-makers	\$4	\$3	\$2	\$18	\$14	\$9	\$14	\$11	\$7
Electric motors	\$46	\$34	\$23	\$104	\$78	\$52	\$59	\$44	\$29
General service fluorescent lamps (Tier II)	\$44	\$33	\$22	\$52	\$39	\$26	\$8	\$6	\$4
Total of product categories subject to sensitivity analysis	\$94	\$70	\$47	\$195	\$146	\$97	\$101	\$76	\$51
Total of all product categories	\$384	\$360	\$337	\$2,005	\$1,956	\$1,908	\$1,621	\$1,596	\$1,571

Additional benefits and costs

As discussed above, this analysis has quantified the benefits of reducing unnecessary regulatory differences by including, in the business-as-usual case, estimated costs associated with industry having to test the same product model twice to satisfy different requirements in Canada and the United States. The policy case removes unnecessary regulatory differences, so the reduction in these costs is quantified as a benefit of regulatory alignment. However, these only represent a small portion of the impacts associated with regulatory alignment, such as administrative costs to manage separate inventories. ([see footnote 56](#))

For industries using regulated products in their operations, an improvement in energy performance translates into energy and operating cost savings, increased productivity and competitiveness and improved environmental performance. When such companies spend these energy savings on expanding their businesses or factories, they create greater demand. This generates additional economic growth and creates more jobs throughout the economy. ([see footnote 57](#))

The analysis has quantified costs and benefits for each product category relative to a business-as-usual case defined by market conditions assessed in 2015. In the case of three product categories (commercial refrigerators, refrigerator-freezers and freezers [self-contained]; dishwashers; and packaged terminal air conditioners and heat pumps), that assessment showed that all product models being imported into Canada or shipped between provinces comply with their respective proposed MEPS. While the analysis does not attribute any costs or benefits to the implementation of the proposed MEPS for these three product categories, the proposed Regulations would prevent future dumping of low-efficiency product models into the Canadian market.

Another benefit of the Regulations is related to the verified energy efficiency performance data of regulated equipment that is collected by Natural Resources Canada through its compliance program. These ratings are posted to the Natural Resources Canada Web site ([see footnote 58](#)) and provide readily accessible information to consumers or businesses. Consumers benefit from this information since it provides them with detailed information to make informed purchase decisions. Utilities and retailers also benefit from this information, since it supports programming to promote the sale of high-efficiency products.

“One-for-One” Rule

Decreases in the administrative burden costs associated with the proposed Regulations are a result of a net reduction in the number of data elements that must be reported to the Minister of Natural Resources in accordance with subsection 5(1) of the *Energy Efficiency Act*. The proposed Regulations would affect energy-using products for which reporting requirements already exist. Therefore, should the proposed Regulations be finalized, regulatees would continue to submit the same number of reports to the Minister as they do now. The analysis of the administrative burden isolates and monetizes the impact of a net reduction in the volume of information that these reports would contain.

The change in the administrative burden was estimated at about a \$2,800 reduction in annualized average costs to dealers of products in the categories affected by the proposed Regulations. This represents a reduction of approximately \$10 in annualized average costs per business.

Given the estimated decreases in administrative burden, the proposed Regulations are considered an “OUT” under the “One-for-One” Rule. As the proposed Regulations would amend existing regulations and not create a new regulatory title, there would be no requirement to repeal existing regulations.

Small business lens

The small business lens does not apply to this proposal as there are no costs to small business.

Natural Resources Canada held discussions with a Canadian manufacturer that is developing products that would fall under the central air conditioner and heat pump category. This company is not producing products that are being shipped across provincial borders; therefore, it is not subject to the current Regulations or impacted by the proposed Regulations.

Consultation

Natural Resources Canada follows general consultation practices for products as follows:

- *National Standards System*. The relevant Canadian Standards Association steering committees, technical

committees and technical subcommittees, assembled from stakeholders (including manufacturers, industry associations and other interested groups), provided input, and reviewed and voted upon changes to the test standards.

- *Bulletins*. Product-specific bulletins were distributed to interested stakeholders. Distribution lists targeted key market channel stakeholders, key federal and provincial stakeholders, and general interest groups (advocacy groups, international regulators). Many of these individuals and organizations in turn forwarded the bulletins to provide access to a larger audience of stakeholders. These product-specific bulletins are emailed and posted on the *Energy Efficiency Regulations* Web page of the Natural Resources Canada Web site at <http://oee.nrcan.gc.ca/regulations/11239>.
- *General bulletins*. General bulletins for all products were issued and distributed broadly to stakeholders.
- *Forward Regulatory Plans*. Forward Regulatory Plans were posted to the Natural Resources Canada Web site.
- *Workshops and webinars*. Workshops and post-bulletin webinars were held for some products to provide stakeholders with a public forum to learn more about the proposed requirements, review comments and provide additional input as required, especially where there were significant issues raised that were best addressed as a group in conjunction with the bulletin process. Invitations were sent out to known stakeholders. In some cases, bilateral discussions were held with stakeholders that raised product-specific issues. The meeting notes and presentation materials were forwarded to webinar participants.
- *Market studies*. Studies to support decision making are conducted by third-party consultants who often work with manufacturers and industry associations to gather information.
- *Ongoing bilateral discussions*. In the extended intervening time between formal consultations and the publication of the proposed Regulations, Natural Resources Canada has kept in close contact with the industry through major industry associations to discuss changes and updates to the products.

Consultation chronology

Stakeholders ([see footnote 59](#)) were informed of the changes being considered in the proposed Regulations and were provided opportunities to comment at several points since 2010. These consultations evolved with time, and the content of the proposed Regulations was modified accordingly to include additional changes that could further support achieving the objectives. The following outlines the key materials used to communicate details to the stakeholder community:

- **2010 to 2011**: Detailed product-specific technical bulletins were published. A series of product-specific webinars and workshops were held with affected stakeholders to discuss the content of these bulletins. A general bulletin was issued for all products in late 2011, updating stakeholders on the outcomes of earlier consultations.
- **2012 to 2014**: Departmental Forward Regulatory Plans were published to communicate the product categories being considered for inclusion in the proposed Regulations as well as the overarching policy direction being taken.
- **Summer 2014**: Consultations were held on the policy direction for gas-fired storage water heaters.
- **2014 to 2015**: A series of discussions was held with industry associations to reconfirm support for the approach being taken for the proposed Regulations. A general bulletin was published, outlining the 20 product categories being considered for the proposed Regulations, as well as the policy intent and anticipated timelines for the regulatory process.

Product-specific consultation

Stakeholders were informed of the content of the proposed Regulations through the activities outlined above. Because the proposed Regulations align with standards in the United States, some of these consultations resulted in no substantive comment or changes to original policies announced by Natural Resources Canada. ([see footnote 60](#)) The following section elaborates only where there were substantive discussions and describes how those discussions were taken into account in the development of the proposed Regulations.

Appliances: clothes dryers, clothes washers (household and commercial), clothes washer-dryers, dishwashers, freezers and refrigerators

In response to Natural Resources Canada's 2013 posting on its Web site of the Forward Regulatory Plans, the Department received comments from the appliance industry. The Association of Home Appliance Manufacturers expressed concern that the proposed timing of regulating appliance products would create an undue burden due to the lack of alignment between the standards in the United States and Canada. In response, Natural Resources Canada is proposing amendments to align requirements for seven appliance categories with those of the United States through the proposed Regulations, rather than implementing these changes through a

subsequent regulatory development process, as was initially intended.

Chillers

In a May 2014 letter, an industry association noted that, if changes were implemented in accordance with the approach outlined in a 2010 technical bulletin, condenser-less chillers would need to be matched and rated with specific condensers and to meet the same efficiency requirements as air-cooled chillers. The industry association indicated that this would introduce an unnecessary burden on its members, since condenser-less chillers are outside the scope of the product certification program commonly used for these products. No data was provided by the industry association in support of this claim and no specific proposal was provided to address this issue. Natural Resources Canada has informed the industry association of the content of the proposed Regulations and has requested additional information to determine if further changes are warranted.

Gas-fired storage water heaters

In a 2010 technical bulletin, Natural Resources Canada indicated that it was considering more stringent MEPS for residential gas-fired storage water heaters (no greater than 21.97 kW [75,000 Btu/h] input). The MEPS under consideration would have applied to product models manufactured on or after January 1, 2013, and would have been established at the current ENERGY STAR efficiency levels (i.e. to an energy factor of 0.67 for a 151 L [40 US gallon] tank). A second tier of MEPS was also under consideration that would have required product models manufactured after January 1, 2016, to meet an energy factor of 0.8. These levels were not aligned with the U.S. requirements and, in response to the technical bulletin, stakeholders questioned the relatively short timelines involved.

A subsequent technical bulletin was released in 2011, which modified the timing of when these MEPS would be considered for application in Canada, with the energy factor of 0.67 applying as of 2016 and the energy factor of 0.8 applying as of 2020. Stakeholders expressed general agreement with this approach in response to this technical bulletin.

In May 2014, citing data collected in 2013 through a demonstration project, an affected stakeholder raised concerns with the high costs associated with technologies required to achieve these MEPS in Canada and advocated for an approach that would align with the U.S. Department of Energy. ([see footnote 61](#)) In the United States, as of April 16, 2015, average tanks (i.e. those with a rated storage volume less than or equal to 208 L) would have to comply with an energy factor equivalent to 0.62 for a 151 L tank. Large tanks (i.e. those with a rated storage volume greater than 208 L) would have to comply with an energy factor equivalent to 0.75 for a 227 L tank.

In June 2014, Natural Resources Canada consulted with stakeholders on applying the U.S. requirements in Canada. Manufacturers and natural gas utilities were supportive because it would create a single Canada–U.S. market. Some concerns were raised with respect to the industry’s ability to produce the larger tanks with rated storage volumes greater than 208 L that would be cost-effective for consumers to purchase and install. There was also concern about being able to meet the proposed 2015 implementation dates.

Two provinces advocated for MEPS that would be more stringent than the U.S. levels. One province argued that establishing a long-term series of progressively more efficient MEPS drives the development of incentive programs to ensure the market is ready for new technology.

Responding to concerns about the timing of implementation and the requirements for larger tanks with rated storage volumes greater than 208 L, Natural Resources Canada is proposing to increase the efficiency of the MEPS to the same level for all units, regardless of size, manufactured on or after April 16, 2016.

Exit signs

In November 2011, a general bulletin was sent to over 850 exit sign stakeholders describing the proposed changes to the definition of exit signs that would reflect new guidelines recently adopted in the *National Building Code of Canada* to accept the “running person” pictogram exit signs. No comments were received. These changes were also discussed and approved by the CSA Technical Committee on Lighting comprised of manufacturers, utilities and provincial government regulators.

External power supplies

Natural Resources Canada received comments from the industry expressing concern about the need for double testing for some external power supplies ([see footnote 62](#)) to both the U.S. and CSA test methods, which are

slightly different.

Testing revealed that there were negligible differences in the results from the two test procedures. In March 2012, Natural Resources Canada issued a notice to certification bodies indicating its intention to amend the Regulations to accept both test procedures. In May 2012, Natural Resources Canada also met with certification bodies and industry to explain this. No further comments were received.

With the proposed Regulations, Natural Resources Canada is proposing to accept test results produced by either the U.S. Department of Energy or the CSA test procedure.

Gas fireplaces

In July 2011, Natural Resources Canada received a number of requests to use the 2009 version of the gas fireplace test standard. This version captures energy efficiency gains arising from the use of "pilot on demand" ignition systems, whereas the standard referenced in the Regulations does not. Consultations were held to seek views on this potential change, and no concerns were raised. The proposed Regulations would update the referenced standard to the 2015 version, which is consistent with the content of the 2009 version of this standard.

Gas furnaces (through-the-wall)

Amendment 10 (SOR/2008-1930) to the Regulations provided a two-year delay, from 2010 to 2012, for through-the-wall gas furnaces to meet the 90% annual fuel utilization efficiency performance level that was required of other products in this category. This subcategory of furnace is considered physically space-constrained, and the extra time was to allow manufacturers to re-engineer their products in order to meet more efficient MEPS. Subsequently, Natural Resources Canada had several teleconferences with the Canadian industry association. Given the limited market in Canada, there did not appear to be a strong business case to manufacture a through-the-wall unit that met the 90% performance level. Natural Resources Canada is proposing that the 90% annual fuel utilization efficiency apply only to products manufactured on or after 2015 that are intended for application in new construction.

General service lamps

MEPS for general service lamps apply to 75 W and 100 W light bulbs manufactured on or after January 1, 2014, and to 40 W and 60 W light bulbs manufactured on or after December 31, 2014. When the original MEPS were established in 2008, Natural Resources Canada gave notice that performance verification requirements would be addressed in a future amendment. In July 2010, a bulletin was issued to 1 300 stakeholders and presented at two lighting industry stakeholder meetings. No comments were received.

Large air conditioners and large heat pumps

In 2014, Natural Resources Canada received a letter from an industry association which noted that the Regulations apply to all large air conditioners and large heat pumps with a cooling capacity of 19 kW (65 000 Btu/h) or more, while the U.S. definition of these product categories includes an upper limit of 223 kW (760 000 Btu/h). Therefore, the scope of products covered by this category is different in Canada and the United States. The industry association advocated for the introduction of the same upper limit on the size of product as in the United States. Natural Resources Canada agrees and the proposed Regulations would implement this change.

Regulatory cooperation

In August 2014, Natural Resources Canada and the U.S. Department of Energy established a goal of aligning new and updated energy efficiency standards and test methods for energy-using equipment through enhanced information sharing and cooperative development and implementation, to the extent practicable and permitted by law. This included a commitment to annually share work plans for test procedures and standards; develop guidelines for frequency of interaction and information sharing (e.g. test data, market analyses); mutually participate in the process to establish standards and testing requirements; and leverage multilateral initiatives to advance energy efficiency objectives. ([see footnote 63](#))

In May 2015, the two federal departments released the initial joint work plan, ([see footnote 64](#)) which introduced an initiative comprising "information sharing and assessment of U.S. experience on a range of residential and commercial equipment such as: air conditioners, furnaces, dehumidifiers, dishwashers and vending machines." Information has been shared between the two countries regarding product categories that

are subject to the proposed Regulations. In particular, this has informed the approach as well as some of the analytical data and assumptions used to quantify the potential economic and environmental impacts of implementing the U.S. requirements in Canada.

Consultations with provinces, utilities and Canadian industry have occurred through the national standards development processes, as well as multilateral and bilateral communications with stakeholders.

Rationale

The proposed Regulations would provide benefits to Canadians by addressing the issues of increasing levels of both GHG emissions and unnecessary regulatory differences between Canada and the United States. Other options considered could deal with each issue individually to a greater extent; [\(see footnote 65\)](#) however, the proposed Regulations have been selected since they focus on both issues.

According to the International Energy Agency, policies and programs that address energy efficiency are the most cost-effective way to lower GHG emissions and could complement carbon pricing schemes as an overall strategy to effectively achieve climate change policy objectives. [\(see footnote 66\)](#) Improving energy efficiency also provides economic benefits to consumers and businesses through lower energy bills.

In the absence of a regulatory approach, a market for low-efficiency products would continue. Consumers who purchase such products could be motivated by lower purchase costs even though they would pay higher operational costs over the life of the product. The analysis of the proposed Regulations has shown that the proposed MEPS for all products would generate reductions in GHG emissions and energy consumption. The associated energy savings would generate net monetary benefits for Canadian consumers. It has also shown that, as a result of removing unnecessary regulatory differences, compliance costs associated with having to test the same product model twice to comply with Canadian and U.S. regulations would be reduced. The proposed Regulations would remove these differences across 20 product categories. The analysis has shown that the costs of technologies that would be required to bring low-efficiency products into compliance with the MEPS are outweighed by the benefits attributable to those technologies.

The proposed Regulations were informed by stakeholder views. Industry supports an approach that is aligned with that of the United States since most product models are designed to serve a Canada–United States market. Provinces support federal regulatory action on energy efficiency; however, one province has advocated a more stringent approach than the United States has taken for one of the product categories covered by the proposed Regulations. [\(see footnote 67\)](#)

The Regulations were first introduced in 1995 and have been amended 12 times to increase the stringency of existing MEPS and introduce MEPS for new product categories. Through the use of third-party verification and regular audit testing, a high compliance rate with regulated requirements has been observed. This provides confidence that estimated outcomes are being achieved and that Canadians are experiencing the associated benefits.

Implementation, enforcement and service standards

The proposed Regulations would come into force six months after publication in the *Canada Gazette*, Part II. The requirements would apply to the prescribed products based on their date of manufacture or import or interprovincial shipment of the product. As the Regulations would be repealed and replaced by the proposed Regulations, the regulatory text for all regulated product categories would be re-organized. Stakeholders for all product categories would be notified of the proposed Regulations and provided with guidance on where to find product-specific requirements within the new organization.

The compliance and enforcement procedures already in place for all products prescribed under the Regulations would be utilized for the products that will be subject to the proposed Regulations. The main features of this system are as follows.

Verification marking and energy efficiency reporting

For products prescribed under the Regulations, Natural Resources Canada employs a third-party verification system using the services of certification bodies accredited by the Standards Council of Canada. Verified energy performance data is submitted to Natural Resources Canada by the dealer in an energy efficiency report, as specified in the Regulations. This is required once for each product model before first importation or interprovincial shipment.

Import reporting and monitoring

Natural Resources Canada's procedures, already in place, for the collection of information for commercial imports of prescribed products would apply to products affected by the proposed Regulations. This involves cross-checking required import data received from customs release documents with the energy efficiency reports that dealers have submitted to Natural Resources Canada. This cross-checking ensures that Natural Resources Canada can verify the compliance of regulated products imported into Canada.

The proposed Regulations would continue to require dealers of prescribed products to provide the minimal information needed for customs monitoring.

Direct fieldwork: market survey and product testing

In addition to ongoing compliance and marketplace monitoring activities, Natural Resources Canada would survey and test products in the context of monitoring compliance outcomes with product-specific compliance audits. Depending on the product, Natural Resources Canada would conduct in-store audits and/or test products.

Natural Resources Canada would also conduct product testing on a complaint-driven basis. The market is highly competitive and suppliers are cognizant of performance claims made by their competitors. Challenge procedures by which performance claims can be questioned exist in all verification programs.

Performance measurement and evaluation

The desired outcomes of the proposed Regulations are presented in the following table along with the information that would be tracked to measure performance.

Table 6: Measuring performance of the proposed Regulations

Outcome	Indicators	Information to measure performance
GHG emissions are reduced to contribute to Canada's goal to reduce GHG emissions by at least 30% below 2005 levels by 2030	<ul style="list-style-type: none">• % of product models that meet MEPS	<ul style="list-style-type: none">• Energy efficiency reports• Import reports• Market data (shipments, trends)• Lab testing• Emission factors• Energy prices
Consumers save money by purchasing higher efficiency product models that have lower costs over their lifetime		
Compliance costs associated with unnecessary regulatory differences are removed	<ul style="list-style-type: none">• Number of unnecessary regulatory differences removed	<ul style="list-style-type: none">• Comparison of Canadian and U.S. regulations

Performance would be monitored through a combination of equipment-specific compliance reporting, supported by third-party verification of energy efficiency performance, and ongoing collection of market data to assess broader trends affecting outcomes.

Information collected on the energy efficiency performance of regulated equipment informs both GHG emission impacts and consumer savings, since both are calculated as a function of changes in the amount of energy consumed by these products. ([see footnote 68](#))

A high compliance rate with the proposed Regulations would be achieved through support from manufacturers, third-party verification, customs monitoring, cooperation with regulating provinces, communication activities, market surveys, and product testing, as required.

The standards contained in the proposed Regulations are being implemented under the ecoENERGY Efficiency for Equipment Standards and Labelling initiative. Detailed accounts of progress towards achieving the objectives of this initiative will be found in departmental business plans, reports on plans and priorities, and the Report to Parliament under the *Energy Efficiency Act*.

Contact

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PROPOSED REGULATORY TEXT

Notice is given, pursuant to section 26 of the Energy Efficiency Act ([see footnote a](#)), that the Governor in Council, pursuant to sections 20 ([see footnote b](#)) and 25 of that Act, proposes to make the annexed Energy Efficiency Regulations, 2016.

Interested persons may make representations concerning the proposed Regulations within 75 days after the date of publication of this notice. All such representations must cite the Canada Gazette, Part I, and the date of publication of this notice, and be addressed to Debbie Scharf, Director, Equipment Division, Office of Energy Efficiency, Department of Natural Resources, 930 Carling Avenue (CEF, Building 3, Observatory Crescent), 1st Floor, Room 136-C, Ottawa, Ontario K1A 0Y3 (tel.: 613-996-4359; email: equipment@nrcan.gc.ca).

Ottawa, April 21, 2016

Jurica Čapkun
Assistant Clerk of the Privy Council

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796 Repeal

Coming into Force

797 Six months after publication

SCHEDULE 1

Explanation for Elements on Household Appliance Energy Efficiency Label

SCHEDULE 2

Explanation for Elements on Room Air Conditioner Energy Efficiency Label

SCHEDULE 3

Explanation for Elements on Room Air Conditioner Energy Efficiency Label

Energy Efficiency Regulations, 2016

Interpretation

Definitions

1 (1) The following definitions apply in these Regulations.

Act means the *Energy Efficiency Act*. (*Loi*)

adhesive tag means a label that is attached to an energy-using product by at least two strips of adhesive that are located on opposite edges of the label. (*étiquette adhésive*)

AHRI means the Air-Conditioning, Heating and Refrigeration Institute. (*AHRI*)

ANSI means the American National Standards Institute. (*ANSI*)

ASHRAE means the American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc. (*ASHRAE*)

CGA means the Canadian Gas Association. (*ACG*)

CIE means the International Commission on Illumination. (*CIE*)

CSA means the Canadian Standards Association. (*CSA*)

flap tag means a label whose top edge is attached to an energy-using product by one strip of adhesive. (*vignette*)

hang tag means a label that is attached to an energy-using product by material that is looped around a section of the product so that the label hangs freely from the product. (*étiquette volante*)

household means manufactured or sold primarily for use in a dwelling. (*domestique*)

IEC means the International Electrotechnical Commission. (*CEI*)

IEEE means the Institute of Electrical and Electronics Engineers. (*IEEE*)

IES means the Illuminating Engineering Society of North America. (*IES*)

mains power means an alternating current electric power source in a building that is less than or equal to a nominal 240-volt single-phase supply. (*alimentation principale*)

model number means, in respect of any model of an energy-using product, the designator that is assigned to that model for the purposes of these Regulations and that distinguishes it from similar models. (*numéro de modèle*)

NEMA means the National Electrical Manufacturers Association. (*NEMA*)

unique motor identifier means an identifier consisting of the information set out below, in the following sequence:

- (a) the name of the manufacturer, in abbreviated form;
- (b) the nominal power of the motor, expressed in kilowatts for an IEC design motor or in horsepower for a NEMA design motor;
- (c) the number of poles; and
- (d) a statement as to whether the motor is of open or enclosed construction. (*identificateur unique du moteur*)

Reference to energy-using product

(2) In these Regulations, a reference to an energy-using product is a reference to that product as defined in the Division or Subdivision associated with it.

Incorporated standards

(3) In these Regulations, a reference to an AHRI, ANSI, ASHRAE, CGA, CIE, CSA or IES standard is to be read as a reference to the standard as amended from time to time.

PART 1

General

Interpretation

Definitions

2 The following definitions apply in this Part.

certification body means, in respect of an energy-using product, a body that is accredited by the Standards Council of Canada to operate a certification program in respect of the energy efficiency of the product. (*organisme de certification*)

verification mark means, in respect of an energy-using product, a mark that is

- (a) issued by a certification body to signify that the body has
 - (i) determined that the product complies with the applicable energy efficiency standard, and
 - (ii) if the product is one for which information must be provided for the purpose of subsection 5(1) of the Act, verified the information that is related to the product's energy performance; or
- (b) issued by a province to signify that the product complies with the province's energy efficiency standard. (*marque de vérification*)

Incorporated products

3 Unless otherwise specified by these Regulations, an energy-using product that is incorporated into another product remains an energy-using product for the purposes of these Regulations even if the other product is not

an energy-using product.

Verification Mark

Verification mark

4 (1) Subject to subsections (3) and (4), every energy-using product that, for the purpose of sale or lease, is shipped from one province to another or imported into Canada must be labelled with a verification mark that is issued by

- (a) a certification body; or
- (b) a province whose energy efficiency standard for the product is equivalent to or exceeds the energy efficiency standard prescribed for the product in these Regulations.

Location and visibility

(2) The verification mark must be readily visible on the surface of the energy-using product. However, in respect of a CFL, general service lamp, modified spectrum incandescent lamp, general service fluorescent lamp or general service incandescent reflector lamp, the verification mark may be on the exterior of the product's package.

Exception — CFL

(3) A CFL is not required to be labelled with a verification mark if

(a) a laboratory that is accredited to test the energy performance of lighting products by either the Standards Council of Canada or the National Voluntary Laboratory Accreditation Program has verified the values for nominal power, luminous flux and correlated colour temperature provided to the Minister under subsection 439(1); and

(b) a laboratory that is referred to in paragraph (a), an A2LA certified laboratory or an ISO 9000 certified laboratory or manufacturing facility has

(i) if the life testing of the CFL is completed, verified the value for life provided to the Minister under subsection 439(1), or

(ii) if the life testing of the CFL is not completed, verified 40% of its design life and at that point in the testing not more than one unit in the test sample has failed.

Exception — external power supplies

(4) An external power supply is not required to be labelled with a verification mark if

(a) it is labelled with a mark in accordance with the U.S. Environmental Protection Agency publication entitled "*International Efficiency Marking Protocol for External Power Supplies*", dated October 2008;

(b) a certification body has verified the information related to the product's energy performance that is provided for the purpose of subsection 5(1) of the Act; and

(c) it is labelled with the same model number as that used when the information was verified.

Provision of Information

Prescribed information

5 (1) A dealer who, for the purpose of sale or lease, ships an energy-using product from one province to another or imports an energy-using product into Canada must, for the purpose of subsection 5(1) of the Act, provide the following information to the Minister:

(a) the name of the product as prescribed in these Regulations;

(b) the brand name of the product, if any;

(c) the product's model number or, in the case of a motor, the product's model number or unique motor identifier;

(d) the name of the product's manufacturer;

(e) one of the following, namely,

- (i) the name of the certification body or province whose verification mark will be on the product or its package,
- (ii) in the case of a CFL, the name of the laboratory referred to in paragraph 4(3)(a) and the name of the laboratory or manufacturing facility referred to in paragraph 4(3)(b),
- (iii) in the case of an external power supply, the name of the certification body referred to in paragraph 4(4)(b), or
- (iv) in the case of a general service lamp or modified spectrum incandescent lamp for which there is no energy efficiency standard, if a laboratory that is accredited to test the energy performance of lighting products by either the Standards Council of Canada or the National Voluntary Laboratory Accreditation Program has verified the information displayed on the product's package, the name of that laboratory; and

(f) any other information that is prescribed in these Regulations to be provided to the Minister for the purpose of subsection 5(1) of the Act.

Manner and time

(2) The information must be provided electronically or by fax, hand delivery, courier or mail before the product is imported into Canada or shipped from the province in which it was manufactured to another province.

CFL life information

6 (1) Despite paragraph 5(1)(f), a dealer is not required to provide information related to the life of a CFL if

- (a) at the time the information is to be provided the life testing of the product is not completed, but 40% of the product's design life has been verified as described in subparagraph 4(3)(b)(ii); and
- (b) the dealer provides the following information to the Minister together with the information provided under subsection 5(1):

- (i) a statement indicating that 40% of the product's design life has been verified,
- (ii) the date on which life testing began,
- (iii) the design life of the product, and
- (iv) the number of hours of life that have been verified.

Verified CFL life

(2) Within 30 days after the day on which the life testing of the CFL is completed, the dealer must provide the Minister with the following information:

- (a) the product's life as verified; and
- (b) the name of the laboratory or manufacturing facility that performed the verification, if it is different from the name provided under subparagraph 5(1)(e)(ii).

Information Pertaining to Imports

Prescribed information

7 (1) A dealer who, for the purpose of sale or lease, imports an energy-using product into Canada must, for the purpose of subsection 5(1) of the Act, provide the following information to the Minister:

- (a) the name of the product as prescribed in these Regulations;
- (b) the brand name of the product, if any;
- (c) one of the following, namely,
 - (i) in the case of a motor, the product's model number or unique motor identifier, or
 - (ii) in any other case, the product's model number;
- (d) the dealer's address; and
- (e) a statement as to whether the product is being imported
 - (i) for sale or lease in Canada without modification,

(ii) for sale or lease in Canada after being modified to comply with the applicable energy efficiency standard, or

(iii) for incorporation into any other product that is to be exported from Canada.

Manner and time

(2) The information must be provided before the energy-using product is released under the *Customs Act* and the provision of the information must be effected by including it in the appropriate document described in section 6 of the *Accounting for Imported Goods and Payment of Duties Regulations* and giving it to an officer at the customs office, sufferance warehouse or bonded warehouse where the product is to be released.

Exemptions from Certain Provisions of the Act

Exemption

8 (1) A dealer is exempt from the application of paragraph 4(1)(a) of the Act if the dealer, for the purpose of modifying an energy-using product to comply with the applicable energy efficiency standard, ships the product from the province in which it was manufactured to another province or imports the product into Canada.

Requirements

(2) The dealer must

(a) ensure that the product is brought into compliance with the applicable energy efficiency standard within 90 days after the day on which the product is shipped or imported;

(b) despite subsection 5(2), provide the information referred to in subsection 5(1) within 120 days after the day on which the product is shipped or imported; and

(c) if requested by the Minister, provide the Minister with any other information that is necessary to establish that the product has been brought into compliance with the applicable energy efficiency standard.

Exemption — incorporation into product for export

9 A dealer is exempt from the application of sections 4 and 5 of the Act with respect to the shipment or importation of an energy-using product that is to be incorporated into any other product that is to be exported from Canada.

Exemption — product to be exported

10 A dealer is exempt from the application of sections 4 and 5 of the Act if the dealer, for the purpose of exporting the energy-using product from Canada, ships the product from the province in which it was manufactured to another province or imports the product into Canada.

Exemption — motors with same unique motor identifier

11 A dealer is exempt from the application of section 5 of the Act in respect of a motor if

(a) the information has been provided in respect of a motor that has the same unique motor identifier; and

(b) the motor is at least as energy efficient as the motor for which the information was provided.

PART 2

Energy-Using Products

DIVISION 1

Household Appliances

Interpretation

Definitions

12 The following definitions apply in this Division.

10 CFR Appendix D2 means Appendix D2 to Subpart B, Part 430 of Title 10 to the United States *Code of Federal Regulations*, entitled *Uniform Test Method for Measuring the Energy Consumption of Clothes Dryers*, as amended from time to time. (*appendix D2 10 CFR*)

CSA C300-00 means the CSA standard CAN/CSA-C300- 00 entitled *Energy Performance and Capacity of Household Refrigerators, Refrigerator-Freezers, and Freezers*. (*CSA C300-00*)

CSA C300-12 means the CSA standard CSA-C300-12 entitled *Energy Performance and Capacity of Household Refrigerators, Refrigerator-Freezers, Freezers and Wine Chillers*. (*CSA C300-12*)

CSA C300-15 means the CSA standard CAN/CSA-C300- 15 entitled *Energy Performance and Capacity of Household Refrigerators, Refrigerator-Freezers, Freezers and Wine Chillers*. (*CSA C300-15*)

CSA C358-03 means the CSA standard CAN/CSA-C358- 03 entitled *Energy Consumption Test Methods for Household Electric Ranges*. (*CSA C358-03*)

CSA C360-03 means the CSA standard CAN/CSA-C360-03 entitled *Energy Performance, Water Consumption and Capacity of Household Clothes Washers*. (*CSA C360-03*)

CSA C360-13 means the CSA standard CAN/CSA-C360-13 entitled *Energy Performance, Water Consumption and Capacity of Household Clothes Washers*. (*CSA C360-13*)

CSA C361-12 means the CSA standard CAN/CSA-C361-12 entitled *Test Method for Measuring Energy Consumption and Drum Volume of Electrically Heated Household Tumble-Type Clothes Dryers*. (*CSA C361-12*)

CSA C361-92 means the CSA standard CAN/CSA-C361-92 entitled *Test Method for Measuring Energy Consumption and Drum Volume of Electrically Heated Household Tumble-Type Clothes Dryers*. (*CSA C361-92*)

Labelling

EnerGuide label

13 (1) An energy-using product prescribed in any of Subdivisions A to G of this Division must be labelled in the form set out in Schedule 1.

Manner of labelling

(2) The label must be an adhesive tag, flap tag or hang tag that is attached to the product so that the tag is readily visible when the product is viewed from the front.

Paper — adhesive and flap tags

14 (1) The paper that is used for adhesive tags or flap tags must weigh, exclusive of the release liner and adhesive, not less than the equivalent of 26.31 kg (58 pounds) per 500 sheets measuring 63.5 cm (25 inches) by 96.52 cm (38 inches).

Adhesive — adhesive and flap tags

(2) The adhesive that is used to attach an adhesive tag or a flap tag to an energy-using product must

(a) render the tag easily removable from the product without the use of a tool or any liquid other than water; and

(b) have an adhesion capacity that is sufficient to prevent the tag from being dislodged from the product under normal handling conditions.

Paper — hang tags

15 (1) The paper that is used for hang tags must weigh not less than the equivalent of 49.9 kg (110 pounds) per 500 sheets measuring 64.77 cm (25.5 inches) by 77.47 cm (30.5 inches).

Attachment material — hang tags

(2) The material that is used to attach a hang tag to an energy-using product must be of sufficient strength to

ensure that when gradual pressure is applied to the tag by pulling it away from the product, the tag will tear before the material breaks.

SUBDIVISION A

Clothes Dryers

Definition of *clothes dryer*

16 In this Subdivision, clothes dryer means a household tumble-type clothes dryer that is electrically operated.

Size category

17 For the purposes of these Regulations, the size category of a clothes dryer is

- (a) compact, if it has a drum capacity of less than 125 L (4.4 cubic feet); or
- (b) standard, if it has a drum capacity of 125 L (4.4 cubic feet) or more.

Energy-using product

18 (1) A clothes dryer is prescribed as an energy-using product.

Limit

(2) However, for the purposes of sections 4, 5, 13 to 15 and 19, a clothes dryer is not considered to be an energy-using product unless it is manufactured on or after February 3, 1995.

Energy efficiency standards

19 (1) The energy efficiency standards set out in column 2 of the table to this section apply to clothes dryers that are manufactured during the periods set out in column 3.

Testing standard

(2) A clothes dryer complies with the energy efficiency standard if it meets that standard when tested in accordance with testing procedures established by the standard set out in column 1 that are applicable to a clothes dryer as defined in section 16.

TABLE

	Column 1	Column 2	Column 3
Item	Standard	Energy Efficiency Standard	Period of Manufacture
1	CSA C361-92	CSA C361-92, Table 8.1	On or after February 3, 1995 and before January 1, 2015
2	CSA C361-12 or 10 CFR Appendix D2	CSA C361-12, Table 1	On or after January 1, 2015

Information

20 For the purpose of subsection 5(1) of the Act, the information set out in column 3 of the table to this section must be collected in accordance with the standard set out in column 2 and provided to the Minister in respect of a clothes dryer described in column 1.

TABLE

	Column 1	Column 2	Column 3
Item	Energy-using Product	Standard	Information
1	Clothes dryers manufactured on or after February 3, 1995 and before January 1, 2015	CSA C361-92	(a) size category; (b) nominal voltage; (c) capacity, in L, of clothes dryer's drum; (d) annual energy consumption in kWh; (e) energy factor in kg/kWh; and (f) drying controls the product has, namely, timed, auto-temp or auto-moisture.
2	Clothes dryers manufactured on or after January 1, 2015	CSA C361-12 or 10 CFR Appendix D2	(a) size category; (b) nominal voltage; (c) capacity, in L, of clothes dryer's drum; (d) annual energy consumption in kWh; (e) combined energy factor in kg/kWh; and (f) drying controls the product has, namely, timed, auto-temp or auto-moisture.

SUBDIVISION B

Clothes Washers

Definition of *clothes washer*

21 In this Subdivision, clothes washer means an electrically operated clothes washer that does not require mechanical fastening to a floor or wall, is top- or front-loaded and has an internal control system that regulates the water temperature without the need for user intervention after the machine is set in operation.

Size category

22 For the purposes of these Regulations, the size category of a clothes washer is

- (a) compact, if it has a container capacity of less than 45 L (1.6 cubic feet); or
- (b) standard, if it has a container capacity of 45 L (1.6 cubic feet) or more.

Energy-using product

23 (1) A clothes washer is prescribed as an energy-using product.

Limits

(2) However, a clothes washer is not considered to be an energy-using product

- (a) for the purposes of sections 4, 5 and 24, unless it is manufactured on or after February 3, 1995; and
- (b) for the purposes of sections 13 to 15, unless it is a household clothes washer and it is

manufactured on or after February 3, 1995.

Energy efficiency standards

24 (1) The energy efficiency standards set out in column 3 of the table to this section apply to clothes washers described in column 1 that are manufactured during the periods set out in column 4.

Testing standard

(2) A clothes washer complies with the energy efficiency standard if it meets that standard when tested in accordance with testing procedures established by the standard set out in column 2 that are applicable to a clothes washer as defined in section 21.

TABLE

Item	Column 1 Energy-using Product	Column 2 Standard	Column 3 Energy Efficiency Standard	Column 4 Period of Manufacture
1	Clothes washers	CSA C360-03	CSA C360-03, Table 9	On or after February 3, 1995 and before January 1, 2007
2	Clothes washers, other than household clothes washers	CSA C360-03	CSA C360-03, Table 10	On or after January 1, 2007 and before January 8, 2013
3	Clothes washers, other than household clothes washers	CSA C360-03	CSA C360-13, Table 11	On or after January 8, 2013 and before January 1, 2018
4	Clothes washers that are top-loaded, other than household clothes washers	CSA C360-13	Modified energy factor ≥ 38.23 L/kWh/cycle	On or after January 1, 2018
5	Clothes washers that are front-loaded, other than household clothes washers	CSA C360-13	Modified energy factor ≥ 56.63 L/kWh/cycle	On or after January 1, 2018
6	Household clothes washers	CSA C360-03	CSA C360-03, Table 10	On or after January 1, 2007 and before March 7, 2015
7	Household clothes washers	CSA C360-13	CSA C360-13, Table 9	On or after March 7, 2015 and before January 1, 2018
8	Household clothes washers	CSA C360-13	CSA C360-13, Table 10	On or after January 1, 2018

Information

25 For the purpose of subsection 5(1) of the Act, the information set out in column 3 of the table to this section must be collected in accordance with the standard set out in column 2 and provided to the Minister in respect of a clothes washer described in column 1.

TABLE

Item	Column 1 Energy-using Product	Column 2 Standard	Column 3 Information
1	Clothes washers manufactured on or after February 3, 1995 and before March 7, 2015	CSA C360-03	<p>(a) size category;</p> <p>(b) capacity, in L, of clothes washer's container;</p> <p>(c) annual energy consumption in kWh;</p> <p>(d) modified energy factor in L/kWh/cycle;</p> <p>(e) water consumption factor in L/cycle/L;</p> <p>(f) maximum wash temperature available, namely, $\leq 57.2^{\circ}\text{C}$ or $> 57.2^{\circ}\text{C}$;</p> <p>(g) the wash/rinse temperature selections listed in Table 5 of CSA C360-03 the product has;</p> <p>(h) water fill control system the product has, namely, manual or adaptive;</p> <p>(i) rotational axis of clothes washer's container, namely, horizontal or vertical; and</p> <p>(j) method for payment the product has, if any.</p>
2	Household clothes washers manufactured on or after March 7, 2015	CSA C360-13	<p>(a) size category;</p> <p>(b) capacity, in L, of clothes washer's container;</p> <p>(c) annual energy consumption in kWh;</p> <p>(d) integrated modified energy factor in L/kWh/cycle;</p> <p>(e) integrated water consumption factor in L/cycle/L;</p> <p>(f) maximum wash temperature available, namely, $\leq 57.2^{\circ}\text{C}$ or $> 57.2^{\circ}\text{C}$;</p> <p>(g) the wash/rinse temperature selections listed in Table 5 of CSA C360-13 the product has;</p> <p>(h) water fill control system</p>

3	Clothes washers, other than household clothes washers, manufactured on or after March 7, 2015 and before January 1, 2018	CSA C360-03	<p>the product has, namely, manual or adaptive; and</p> <p>(i) rotational axis of clothes washer's container, namely, horizontal or vertical.</p>
4	Clothes washers, other than household clothes washers, manufactured on or after January 1, 2018	CSA C360-13	<p>(a) size category;</p> <p>(b) capacity, in L, of clothes washer's container;</p> <p>(c) annual energy consumption in kWh;</p> <p>(d) modified energy factor in L/kWh/cycle;</p> <p>(e) water consumption factor in L/cycle/L;</p> <p>(f) maximum wash temperature available, namely, $\leq 57.2^{\circ}\text{C}$ or $> 57.2^{\circ}\text{C}$;</p> <p>(g) the wash/rinse temperature selections listed in Table 5 of CSA C360-03 the product has;</p> <p>(h) water fill control system the product has, namely, manual or adaptive;</p> <p>(i) rotational axis of clothes washer's container, namely, horizontal or vertical; and</p> <p>(j) method for payment the product has, if any.</p> <p>(a) size category;</p> <p>(b) capacity, in L, of clothes washer's container;</p> <p>(c) annual energy consumption in kWh;</p> <p>(d) modified energy factor in L/kWh/cycle;</p> <p>(e) integrated water consumption factor in L/cycle/L;</p> <p>(f) maximum wash temperature available, namely, $\leq 57.2^{\circ}\text{C}$ or $> 57.2^{\circ}\text{C}$;</p> <p>(g) the wash/rinse temperature selections listed in Table 5 of CSA C360-13 the product has;</p> <p>(h) water fill control system the product has, namely, manual or adaptive;</p> <p>(i) rotational axis of clothes washer's container, namely, horizontal or vertical; and</p> <p>(j) method for payment the</p>

SUBDIVISION C

Integrated Clothes Washer-Dryers

Definitions

26 The following definitions apply in this Subdivision.

combination clothes washer-dryer means a household appliance that has

- (a) a clothes washer function and clothes dryer function that utilize the same drum;
- (b) a common control panel for both functions; and
- (c) one power source. (*laveuse-sécheuse combinée*)

integrated clothes washer-dryer means

- (a) a household appliance that consists of a clothes washer component and a clothes dryer component located above, below or beside it, that is powered by one power source and that has its control panel located on one of the components; or
- (b) a combination clothes washer-dryer. (*laveuse-sécheuse*)

V means

- (a) in the case of an integrated clothes washer-dryer that is not a combination clothes washer-dryer, the volumes, expressed in litres, of the basket for the clothes washer component and of the drum for the clothes dryer component; or
- (b) in the case of an integrated clothes washer-dryer that is a combination clothes washer-dryer, the volume, expressed in litres, of the drum. (*V*)

Size category — other than combination clothes washer-dryer

27 (1) For the purposes of these Regulations, the size category of an integrated clothes washer-dryer that is not a combination clothes washer-dryer is

- (a) compact, if it has a clothes dryer component with a drum capacity of less than 125 L (4.4 cubic feet) and a clothes washer component with a basket capacity of less than 45 L (1.6 cubic feet); or
- (b) standard, if it has a clothes dryer component with a drum capacity of 125 L (4.4 cubic feet) or more and a clothes washer component with a basket capacity of 45 L (1.6 cubic feet) or more.

Size category — combination clothes washer-dryer

(2) For the purposes of these Regulations, the size category of an integrated clothes washer-dryer that is a combination clothes washer is

- (a) compact, if it has a drum capacity of less than 45 L (1.6 cubic feet); or
- (b) standard, if it has a drum capacity of 45 L (1.6 cubic feet) or more.

Type

28 For the purposes of these Regulations, an integrated clothes washer-dryer is one of the following types, namely, combination, over/under or side-by-side.

Energy-using product

29 (1) An integrated clothes washer-dryer is prescribed as an energy-using product.

Limit

(2) However, for the purposes of sections 4, 5, 13 to 15 and 30, an integrated clothes washer-dryer is not considered to be an energy-using product unless it is manufactured on or after February 3, 1995.

Energy efficiency standards

30 (1) The energy efficiency standards set out in column 2 of the table to this section apply to integrated clothes washer-dryers that are manufactured during the periods set out in column 3.

Testing standard

(2) An integrated clothes washer-dryer complies with the energy efficiency standard if it meets that standard when tested in accordance with testing procedures established by the standard set out in column 1 that are applicable to an integrated clothes washer-dryer as defined in section 26.

TABLE

	Column 1	Column 2	Column 3
Item	Standard	Energy Efficiency Standard	Period of Manufacture
1	CSA C360-03 for clothes washer function CSA C361-92 for clothes dryer function	CSA C360-03, Table 9, for clothes washer function CSA C361-92, Table 8.1, for clothes dryer function	On or after February 3, 1995 and before January 1, 2007
2	CSA C360-03 for clothes washer function CSA C361-92 for clothes dryer function	CSA C360-03, Table 10, for clothes washer function CSA C361-92, Table 8.1, for clothes dryer function	On or after January 1, 2007 and before March 7, 2015
3	CSA C360-13 for clothes washer function CSA C361-12 or 10 CFR Appendix D2 for clothes dryer function	CSA C360-13, Table 9, for clothes washer function CSA C361-12, Table 1, for clothes dryer function	On or after March 7, 2015 and before January 1, 2018
4	CSA C360-13 for clothes washer function CSA C361-12 or 10 CFR Appendix D2 for clothes dryer function	CSA C360-13, Table 10, for clothes washer function CSA C361-12, Table 1, for clothes dryer function	On or after January 1, 2018

Information

31 For the purpose of subsection 5(1) of the Act, the information set out in column 3 of the table to this section must be collected in accordance with the standard set out in column 2 and provided to the Minister in respect of an integrated clothes washer-dryer described in column 1.

TABLE

	Column 1	Column 2	Column 3
Item	Energy-using Product	Standard	Information

1	Integrated clothes washer-dryers manufactured on or after February 3, 1995 and before March 7, 2015	CSA C360-03 for clothes washer function CSA C361-92 for clothes dryer function	<p>(a) type and size category;</p> <p>(b) V;</p> <p>(c) annual energy consumption, in kWh, for clothes washer function and clothes dryer function;</p> <p>(d) modified energy factor in L/kWh/cycle for clothes washer function;</p> <p>(e) energy factor in kg/kWh for clothes dryer function;</p> <p>(f) water consumption factor in L/cycle/L;</p> <p>(g) maximum water temperature available, namely, $\leq 57.2^{\circ}\text{C}$ or $> 57.2^{\circ}\text{C}$;</p> <p>(h) which of the wash/rinse temperature selections listed in Table 5 of CSA C360-03 the product has;</p> <p>(i) water fill control system the product has, namely, manual or adaptive; and</p> <p>(j) drying controls the product has, namely, timed, auto-temp or auto-moisture.</p>
2	Integrated clothes washer-dryers manufactured on or after March 7, 2015	CSA C360-13 for clothes washer function CSA C361-12 or 10 CFR Appendix D2 for clothes dryer function	<p>(a) type and size category;</p> <p>(b) V;</p> <p>(c) annual energy consumption, in kWh, for clothes washer function and clothes dryer function;</p> <p>(d) integrated modified energy factor in L/kWh/cycle for clothes washer function;</p> <p>(e) combined energy factor in kg/kWh for clothes dryer function;</p> <p>(f) integrated water consumption factor in L/cycle/L;</p> <p>(g) maximum water temperature available, namely, $\leq 57.2^{\circ}\text{C}$ or $> 57.2^{\circ}\text{C}$;</p> <p>(h) which of the wash/rinse temperature selections listed in Table 5 of CSA C360-13 the product has;</p> <p>(i) water fill control system the product has, namely, manual or adaptive; and</p> <p>(j) drying controls the product has, namely, timed, auto-temp or auto-moisture.</p>

SUBDIVISION D

Dishwashers

Definitions

32 The following definitions apply in this Subdivision.

CSA C373-04 means the CSA standard CAN/CSA-C373-04 entitled *Energy Consumption Test Methods and Limits for Household Dishwashers*. (CSA C373-04)

CSA C373-14 means the CSA standard CAN/CSA-C373-14 entitled *Energy Performance and Water Consumption of Household Dishwashers*. (CSA C373-14)

dishwasher means an electrically operated automatic household dishwasher. (*lave-vaisselle*)

Size category

33 For the purposes of these Regulations, the size category of a dishwasher is

- (a) compact, if it has a capacity of less than eight place settings and six serving pieces; or
- (b) standard, if it has a capacity that is equal to or greater than eight place settings and six serving pieces.

Type

34 For the purposes of these Regulations, a dishwasher is one of the following types:

- (a) built-in, if it is designed to be permanently connected to a water and electric supply in a dwelling; or
- (b) portable, if it is designed not to be permanently connected to a water and electric supply in a dwelling.

Labelling — total annual energy consumption

35 In respect of a dishwasher that is manufactured on or after January 1, 2010, a reference to “annual energy consumption” in Schedule 1 is to be read as a reference to “total annual energy consumption”.

Energy-using product

36 (1) A dishwasher is prescribed as an energy-using product.

Limit

(2) However, for the purposes of sections 4, 5, 13 to 15 and 37, a dishwasher is not considered to be an energy-using product unless it is manufactured on or after February 3, 1995.

Energy efficiency standards

37 (1) The energy efficiency standards set out in column 3 of the table to this section apply to dishwashers described in column 1 that are manufactured during the periods set out in column 4.

Testing standard

(2) A dishwasher complies with the energy efficiency standard if it meets that standard when tested in accordance with testing procedures established by the standard set out in column 2 that are applicable to a dishwasher as defined in section 32.

TABLE

	Column 1	Column 2	Column 3	Column 4
Item	Energy-using Product	Standard	Energy Efficiency Standard	Period of Manufacture

Information

38 For the purpose of subsection 5(1) of the Act, the information set out in column 3 of the table to this section must be collected and provided to the Minister in respect of a dishwasher described in column 1 and, if applicable, the information must be collected in accordance with the standard set out in column 2.

TABLE

Item	Column 1 Energy-using Product	Column 2 Standard	Column 3 Information
1	Dishwashers manufactured on or after February 3, 1995 and before January 1, 2010	CSA C373-04, for information set out in paragraphs (b) to (d)	<p>(a) type and size category;</p> <p>(b) volume, in L, of hot water used;</p> <p>(c) annual energy consumption in kWh;</p> <p>(d) energy factor in cycles/kWh; and</p> <p>(e) drying option the product has, namely, heat dry or heat on/heat off.</p>
2	Dishwashers manufactured on or after January 1, 2010 and before May 30, 2013	CSA C373-04, for information set out in paragraphs (b) to (e)	<p>(a) type and size category;</p> <p>(b) volume, in L, of hot water used;</p> <p>(c) total annual energy consumption in kWh;</p> <p>(d) annual standby energy consumption in kWh;</p> <p>(e) energy factor in cycles/kWh; and</p> <p>(f) drying option the product has, namely,</p> <p style="padding-left: 40px;">(i) power-dry with fan and heat on,</p> <p style="padding-left: 40px;">(ii) power-dry with fan on and heat off, or</p> <p style="padding-left: 40px;">(iii) power-dry off.</p>
3	Dishwashers manufactured on or after May 30, 2013	CSA C373-14 for information set out in paragraphs (b) to (d)	<p>(a) type and size category;</p> <p>(b) volume, in L, of hot water used;</p> <p>(c) total annual energy consumption in kWh;</p> <p>(d) annual standby energy consumption in kWh; and</p> <p>(e) drying option the product has, namely,</p> <p style="padding-left: 40px;">(i) power-dry with fan and heat on,</p>

- (ii) power-dry with fan on and heat off, or
- (iii) power-dry off.

SUBDIVISION E

Refrigerators and Combination Refrigerator-Freezers

Definitions

39 The following definitions apply in this Subdivision.

combination refrigerator-freezer means a household combination refrigerator-freezer that has

- (a) a defrost system, including a compressor-cycled automatic defrost system; and
- (b) a capacity of 1 100 L (39 cubic feet) or less. (*réfrigérateur-congélateur*)

compressor-cycled automatic defrost system means a defrost system in which the defrosting action for the refrigerated spaces occurs using the natural warming of the evaporator and that is automatically initiated when the compressor is cycled on and automatically terminated when the compressor is cycled off. (*dispositif de dégivrage automatique à cycle du compresseur*)

refrigerator means a household refrigerator that has a capacity of 1 100 L (39 cubic feet) or less and that has a defrost system, including a compressor-cycled automatic defrost system. It includes a wine chiller but does not include a household refrigerator that uses an absorption refrigeration system. (*réfrigérateur*)

Type 5A combination refrigerator-freezer means a combination refrigerator-freezer that is manufactured on or after December 31, 2005, is capable of dispensing ice through the cabinet door and is equipped with a bottom-mounted freezer and an automatic defrost system. (*réfrigérateur-congélateur de type 5A*)

Size category

40 For the purposes of these Regulations, the size category of a refrigerator or combination refrigerator-freezer is the capacity range set out below within which the actual size of the product falls or that is closest to the actual size of the product:

- (a) less than 70.80 L (2.5 cubic feet);
- (b) 70.80 to 124.61 L (2.5 to 4.4 cubic feet);
- (c) 127.44 to 181.25 L (4.5 to 6.4 cubic feet);
- (d) 184.08 to 237.89 L (6.5 to 8.4 cubic feet);
- (e) 240.73 to 294.53 L (8.5 to 10.4 cubic feet);
- (f) 297.37 to 351.18 L (10.5 to 12.4 cubic feet);
- (g) 354.01 to 407.82 L (12.5 to 14.4 cubic feet);
- (h) 410.65 to 464.46 L (14.5 to 16.4 cubic feet);
- (i) 467.29 to 521.10 L (16.5 to 18.4 cubic feet);
- (j) 523.93 to 577.74 L (18.5 to 20.4 cubic feet);
- (k) 580.57 to 634.38 L (20.5 to 22.4 cubic feet);
- (l) 637.21 to 691.02 L (22.5 to 24.4 cubic feet);
- (m) 693.85 to 747.66 L (24.5 to 26.4 cubic feet);
- (n) 750.50 to 804.30 L (26.5 to 28.4 cubic feet);
- (o) 807.14 to 860.95 L (28.5 to 30.4 cubic feet); or
- (p) 863.66 to 1 100 L (30.5 to 39.0 cubic feet).

Type

41 For the purposes of these Regulations, a refrigerator or combination refrigerator-freezer is one of the following types:

(a) if it was manufactured on or after February 3, 1995 and before January 1, 2008, a type described in any of the product types (1) to (7) and (11) to (15) of Table 1 to CSA C300-00 or a Type 5A combination refrigerator-freezer; or

(b) if it is manufactured on or after January 1, 2008, a type described in any of the product types (1) to (7), (11) to (15), (19) and (20) of Table 1 to CSA C300-12.

Energy-using products

42 (1) Refrigerators and combination refrigerator- freezers are prescribed as energy-using products.

Limit

(2) However, for the purposes of sections 4, 5, 13 to 15 and 43, a refrigerator or combination refrigerator-freezer is not considered to be an energy-using product unless it is manufactured on or after February 3, 1995.

Energy efficiency standards

43 (1) The energy efficiency standards set out in column 3 of the table to this section apply to refrigerators and combination refrigerator-freezers described in column 1 that are manufactured during the periods set out in column 4.

Testing standard – refrigerators

(2) A refrigerator complies with the energy efficiency standard if it meets that standard when tested in accordance with testing procedures established by the standard set out in column 2 that are applicable to a refrigerator as defined in section 39.

Testing standard– combination-refrigerator freezers

(3) A combination refrigerator-freezer complies with the energy efficiency standard if it meets that standard when tested in accordance with testing procedures established by the standard set out in column 2 that are applicable to a combination-refrigerator freezer as defined in section 39.

TABLE

Item	Column 1 Energy-using Product	Column 2 Standard	Column 3 Energy Efficiency Standard	Column 4 Period of Manufacture
1	Refrigerators and combination refrigerator-freezers, other than Type 5A combination refrigerator-freezers	CSA C300-00	CSA C300-00, Table 1, column B	On or after February 3, 1995 and before January 1, 2008
2	Type 5A combination refrigerator-freezers	CSA C300-00	Annual energy consumption $\leq (0.18 \times \text{adjusted volume}) + 539$	On or after December 31, 2005 and before January 1, 2008
3	Refrigerators and combination refrigerator-freezers	CSA C300-12	CSA C300-12, Table 1	On or after January 1, 2008 and before September 15, 2014
4	Refrigerators and combination refrigerator-freezers	CSA C300-15	CSA C300-15, Table 1	On or after September 15, 2014

Information

44 (1) For the purpose of subsection 5(1) of the Act, the following information must be provided to the Minister in respect of a refrigerator or combination refrigerator- freezer:

- (a) its type;
- (b) the volume of its fresh food compartment;
- (c) the volume of its freezer compartment, if any;
- (d) its adjusted volume; and
- (e) its annual energy consumption, expressed in kilowatt hours.

Standard

(2) The information must be collected in accordance with one of the following standards:

- (a) CSA C300-00, if the product was manufactured on or after February 3, 1995 and before January 1, 2008;
- (b) CSA C300-12, if the product was manufactured on or after January 1, 2008 and before September 15, 2014; or
- (c) CSA C300-15, if the product is manufactured on or after September 15, 2014.

SUBDIVISION F

Freezers

Definitions

45 The following definitions apply in this Subdivision.

freezer means a household freezer that has a capacity of 850 L (30 cubic feet) or less. (*congélateur*)

Type 10A chest freezer means a chest freezer that is manufactured on or after December 31, 2003, is accessible from the top and is equipped with an automatic defrost system. (*congélateur coffre de type 10A*)

Size category

46 For the purposes of these Regulations, the size category of a freezer is the capacity range set out below within which the actual size of the product falls or that is closest to the actual size of the product:

- (a) less than 155.76 L (5.5 cubic feet);
- (b) 155.76 to 209.57 L (5.5 to 7.4 cubic feet);
- (c) 212.40 to 266.21 L (7.5 to 9.4 cubic feet);
- (d) 269.04 to 322.85 L (9.5 to 11.4 cubic feet);
- (e) 325.68 to 379.49 L (11.5 to 13.4 cubic feet);
- (f) 383.32 to 436.13 L (13.5 to 15.4 cubic feet);
- (g) 438.96 to 492.77 L (15.5 to 17.4 cubic feet);
- (h) 495.60 to 549.41 L (17.5 to 19.4 cubic feet);
- (i) 552.24 to 606.05 L (19.5 to 21.4 cubic feet);
- (j) 608.88 to 662.69 L (21.5 to 23.4 cubic feet);
- (k) 665.52 to 719.33 L (23.5 to 25.4 cubic feet);
- (l) 722.16 to 775.97 L (25.5 to 27.4 cubic feet);
- (m) 778.80 to 832.61 L (27.5 to 29.4 cubic feet); or
- (n) 835.44 to 850 L (29.5 to 30.0 cubic feet).

Type

47 For the purposes of these Regulations, a freezer is one of the following types:

- (a) if it was manufactured on or after February 3, 1995 and before January 1, 2008, a type described

in any of the product types (8) to (10) and (16) to (18) of Table 1 to CSA C300-00 or a Type 10A chest freezer; or

(b) if it is manufactured on or after January 1, 2008, a type described in any of the product types (8) to (10A) and (16) to (18) of Table 1 to CSA C300-12.

Energy-using product

48 (1) A freezer is prescribed as an energy-using product.

Limit

(2) However, for the purposes of sections 4, 5, 13 to 15 and 49, a freezer is not considered to be an energy-using product unless it is manufactured on or after February 3, 1995.

Energy efficiency standards

49 (1) The energy efficiency standards set out in column 3 of the table to this section apply to freezers described in column 1 that are manufactured during the periods set out in column 4.

Testing standard

(2) A freezer complies with the energy efficiency standard if it meets that standard when tested in accordance with testing procedures established by the standard set out in column 2 that are applicable to a freezer as defined in section 45.

TABLE

Item	Column 1 Energy-using Product	Column 2 Standard	Column 3 Energy Efficiency Standard	Column 4 Period of Manufacture
1	Freezers other than Type 10A chest freezers	CSA C300-00	CSA C300-00, Table 1, column B	On or after February 3, 1995 and before January 1, 2008
2	Type 10A chest freezers	CSA C300-00	Annual energy consumption $\leq (0.52 \times \text{adjusted volume}) + 211.5$	On or after December 31, 2003 and before January 1, 2008
3	Freezers	CSA C300-12	CSA C300-12, Table 1	On or after January 1, 2008 and before September 15, 2014
4	Freezers	CSA C300-15	CSA C300-15, Table 1	On or after September 15, 2014

Information

50 (1) For the purpose of subsection 5(1) of the Act, the following information must be provided to the Minister in respect of a freezer:

- (a) its type;
- (b) its total refrigerated volume;
- (c) its adjusted volume;
- (d) its annual energy consumption, expressed in kilowatt hours; and
- (e) its ice freezing capacity, expressed in kilograms per 24 hours.

Standard

(2) The information must be collected in accordance with one of the following standards:

- (a) CSA C300-00, if the product was manufactured on or after February 3, 1995 and before January 1, 2008;
- (b) CSA C300-12, if the product was manufactured on or after January 1, 2008 and before September 15, 2014; or
- (c) CSA C300-15, if the product is manufactured on or after September 15, 2014.

SUBDIVISION G

Electric Ranges

Definitions

51 The following definitions apply in this Subdivision.

conventional cooking top means a cooking top that is not a modular cooking top. (*table de cuisson traditionnelle*)

E means energy consumption, expressed in kilowatt hours per month. (*E*)

electric range means a household electric range. It does not include a portable range that is designed for an electrical supply of 120 V or a microwave oven. (*cuisinière électrique*)

modular cooking top means a cartridge that consists of at least one surface element and that can be plugged into a receptacle on the surface of an electric range. (*table de cuisson modulaire*)

Size category

52 For the purposes of these Regulations, the size category of an electric range that has at least one surface element and at least one oven is one of the following, based on the product's exterior width:

- (a) 60.96 cm (24 inches);
- (b) 76.2 cm (30 inches);
- (c) 91.44 cm (36 inches); or
- (d) 121.92 cm (48 inches).

Type

53 For the purposes of these Regulations, an electric range is one of the following types:

- (a) if it has at least one oven, either self-cleaning or non-self-cleaning; and
- (b) if it has no oven, all models.

Energy-using product

54 (1) An electric range is prescribed as an energy-using product.

Limit

(2) However, for the purposes of sections 4, 5, 13 to 15 and 55, an electric range is not considered to be an energy-using product unless it is manufactured on or after February 3, 1995.

Energy efficiency standards

55 (1) The energy efficiency standards set out in column 2 of the table to this section apply to electric ranges described in column 1 that are manufactured during the periods set out in column 3.

Testing standard

(2) An electric range complies with the energy efficiency standard if it meets that standard when tested in accordance with testing procedures established by CSA C358-03 that are applicable to an electric range as

defined in section 51.

TABLE

	Column 1	Column 2	Column 3
Item	Energy-using Product	Energy Efficiency Standard	Period of Manufacture
1	Electric ranges that have at least one surface element and at least one oven	$E \leq 0.93 V + 14.3$	On or after February 3, 1995 and before August 1, 2003
2	Electric ranges that have at least one surface element and at least one oven	CSA C358-03, clause 8(a)	On or after August 1, 2003
3	Electric ranges that have at least one oven but no surface elements	$E \leq 38$	On or after February 3, 1995 and before August 1, 2003
4	Electric ranges that have at least one oven but no surface elements	CSA C358-03, clause 8(c)	On or after August 1, 2003
5	Electric ranges that are counter-mounted and have at least one surface element on a conventional cooking top but have no oven	$E \leq 34$	On or after February 3, 1995 and before August 1, 2003
6	Electric ranges that are counter-mounted and have at least one surface element on a modular cooking top but have no oven	$E \leq 43$	On or after February 3, 1995 and before August 1, 2003
7	Electric ranges that are counter-mounted and have at least one surface element but have no oven	CSA C358-03, clause 8(b)	On or after August 1, 2003

Information

56 For the purpose of subsection 5(1) of the Act, the information set out in column 2 of the table to this section must be collected in accordance with CSA C358-03 and provided to the Minister in respect of an electric range described in column 1.

TABLE

	Column 1	Column 2
Item	Energy-using Product	Information
1	Electric ranges that have at least one surface element and at least one oven and that were manufactured on or after February 3, 1995 and before August 1, 2003	(a) type and size category; (b) volume, in L, of usable oven space;

		<p>(c) annual energy consumption in kWh;</p> <p>(d) cooking top the product has, namely, conventional or modular; and</p> <p>(e) information that indicates whether product is free-standing or built-in.</p>
2	Electric ranges that have at least one surface element and at least one oven and that are manufactured on or after August 1, 2003	<p>(a) type and size category;</p> <p>(b) volume, in L, of usable oven space;</p> <p>(c) annual energy consumption in kWh;</p> <p>(d) oven configuration, namely, single oven or double oven;</p> <p>(e) baking mode the product has, namely, normal bake or normal bake with forced convection;</p> <p>(f) information that indicates whether product is free-standing or built-in; and</p> <p>(g) annual clock energy consumption in kWh.</p>
3	Electric ranges that have at least one oven but no surface element and that were manufactured on or after February 3, 1995 and before August 1, 2003	<p>(a) volume, in L, of usable oven space for each oven;</p> <p>(b) annual energy consumption in kWh;</p> <p>(c) oven configuration, namely, single oven, double oven or double oven with microwave upper oven; and</p> <p>(d) information that indicates whether product is built-in or wall-mounted.</p>
4	Electric ranges that have at least one oven but no surface element and that are manufactured on or after August 1, 2003	<p>(a) type;</p> <p>(b) volume, in L, of usable oven space for each oven;</p> <p>(c) exterior oven width;</p> <p>(d) annual energy consumption in kWh;</p> <p>(e) oven configuration, namely, single oven, double oven or double oven with microwave upper oven;</p> <p>(f) baking mode the product has, namely, normal bake or normal bake with forced convection;</p> <p>(g) information that indicates whether product is built-in or wall-mounted; and</p> <p>(h) annual clock energy</p>

consumption in kWh.

5	Electric ranges that are counter-mounted, have at least one surface element but no oven and were manufactured on or after February 3, 1995 and before August 1, 2003	(a) annual energy consumption in kWh; and (b) cooking top configuration, namely, conventional or modular.
6	Electric ranges that are counter-mounted, have at least one surface element but no oven and are manufactured on or after August 1, 2003	(a) annual energy consumption in kWh; (b) exterior oven width; and (c) annual clock energy consumption in kWh.

SUBDIVISION H

Gas Ranges

Definition of *gas range*

57 In this Subdivision, gas range means a household propane or natural gas range that has an electrical power source, is used for food preparation and provides at least one of the following functions:

- (a) surface cooking;
- (b) oven cooking; and
- (c) broiling.

Energy-using product

58 (1) A gas range is prescribed as an energy-using product.

Limit

(2) However, for the purposes of sections 4, 5 and 59, a gas range is not considered to be an energy-using product unless it is manufactured on or after February 3, 1995.

Energy efficiency standard

59 The energy efficiency standard that applies to a gas range is that it must not have a continuously burning pilot light.

Information

60 For the purpose of subsection 5(1) of the Act, the following information must be collected in accordance with CSA C358-03 and provided to the Minister in respect of a gas range:

- (a) the volume of usable oven space, expressed in litres;
- (b) information that indicates whether the product is built-in or free-standing; and
- (c) the broiler configuration, namely, open or closed.

SUBDIVISION I

Dehumidifiers

Definitions

61 The following definitions apply in this Subdivision.

CSA C749-94 means the CSA standard CAN/CSA-C749-94 entitled *Performance of Dehumidifiers*. (CSA C749-94)

CSA C749-07 means the CSA standard CAN/CSA-C749-07 entitled *Performance of Dehumidifiers*. (CSA C749-07)

dehumidifier means a factory-assembled electric device that removes moisture from the air, is mechanically refrigerated and has a water removal capacity of not more than 87.5 L/day (185 U.S. pints/day).
(*déshumidificateur*)

Energy-using product

62 (1) A dehumidifier is prescribed as an energy-using product.

Limit

(2) However, for the purposes of sections 4, 5 and 63, a dehumidifier is not considered to be an energy-using product unless it is manufactured on or after December 31, 1998.

Energy efficiency standards

63 (1) The energy efficiency standards set out in column 3 of the table to this section apply to dehumidifiers described in column 1 that are manufactured during the periods set out in column 4.

Testing standard

(2) A dehumidifier complies with the energy efficiency standard if it meets that standard when tested in accordance with testing procedures established by the standard set out in column 2 that are applicable to a dehumidifier as defined in section 61.

TABLE

	Column 1	Column 2	Column 3	Column 4
Item	Energy-using Product	Standard	Energy Efficiency Standard	Period of Manufacture
1	Dehumidifiers	CSA C749-94	CSA C749-94, clause 4.2	On or after December 31, 1998 and before October 1, 2007
2	Dehumidifiers	CSA C749-07	CSA C749-07, Table 1	On or after October 1, 2007 and before October 1, 2012
3	Dehumidifiers that have a water removal capacity of ≤ 16.6 L/day	CSA C749-07	Energy factor ≥ 1.35 L/kWh	On or after October 1, 2012
4	Dehumidifiers that have a water removal capacity of > 16.6 L/day but ≤ 21.3 L/day	CSA C749-07	Energy factor ≥ 1.5 L/kWh	On or after October 1, 2012
5	Dehumidifiers that have a water removal capacity of > 21.3 L/day but ≤ 25.5 L/day	CSA C749-07	Energy factor ≥ 1.6 L/kWh	On or after October 1, 2012

6	Dehumidifiers that have a water removal capacity of > 25.5 L/day but ≤ 35.5 L/day	CSA C749-07	Energy factor ≥ 1.7 L/kWh	On or after October 1, 2012
7	Dehumidifiers that have a water removal capacity of > 35.5 L/day	CSA C749-07	Energy factor ≥ 2.5 L/kWh	On or after October 1, 2012

Information

64 For the purpose of subsection 5(1) of the Act, the information set out in column 3 of the table to this section must be collected in accordance with the standard set out in column 2 and provided to the Minister in respect of a dehumidifier described in column 1.

TABLE

	Column 1	Column 2	Column 3
Item	Energy-using Product	Standard	Information
1	Dehumidifiers manufactured before October 1, 2007	CSA C749-94	(a) water removal capacity, in L/day; and (b) energy factor, in L/kWh.
2	Dehumidifiers manufactured on or after October 1, 2007	CSA C749-07	(a) water removal capacity, in L/day; (b) energy factor, in L/kWh; and (c) standby power, in watts.

[65 to 106 reserved]

DIVISION 2

Air Conditioners, Condensing Units and Chillers

Interpretation

Definitions

107 The following definitions apply in this Division.

CSA C656-05 means the CSA standard CAN/CSA-C656-05 entitled *Performance Standard for Split-System and Single-Package Central Air Conditioners and Heat Pumps*. (CSA C656-05)

CSA C656-14 means the CSA standard CAN/CSA-C656-14 entitled *Performance Standard for Split-System and Single-Package Central Air Conditioners and Heat Pumps*. (CSA C656-14)

CSA C746-06 means the CSA standard CAN/CSA-C746-06 entitled *Performance Standard for Rating Large and Single Packaged Vertical Air Conditioners and Heat Pumps*. (CSA C746-06)

CSA C746-98 means the CSA standard CAN/CSA-C746-98 entitled *Performance Standard for Rating Large Air Conditioners and Heat Pumps*. (CSA C746-98)

small-duct and high-velocity, with respect to a single package central air conditioner or a split-system central air conditioner, means one that has an indoor blower and coil combination that

- (a) produces at least 300 Pa (1.2 inches of water) external static pressure when operated at an air volume rate of 104 to 165 L/s (220 to 350 cubic feet/minute) per nominal ton of cooling; and
- (b) uses room outlets that produce velocities greater than 5 m/s (1,000 feet/minute) and that each have an area less than 39 cm² (6 square inches). (*à grand débit et à petits conduits*)

SUBDIVISION A

Room Air Conditioners

Definitions

108 The following definitions apply in this Subdivision.

CEER means the combined energy efficiency ratio of the product, expressed in British thermal units per watt hour, that constitutes a single measure of its energy efficiency and that integrates standby mode and off mode energy use with on mode energy use. (*CEER*)

CSA C368.1 means the CSA standard CAN/CSA-C368.1-M90 entitled *Performance Standard for Room Air Conditioners*. (*CSA C368.1*)

CSA C370 means the CSA standard CAN/CSA-C370-09 entitled *Cooling Performance of Portable Air Conditioners*. (*CSA C370*)

CSA C62301 means the CSA standard CAN/CSA-C62301:11 entitled *Household Electrical Appliances – Measurement of Standby Power*. (*CSA C62301*)

off mode means the mode in which a room air conditioner, while connected to mains power, provides no air circulation and cannot be switched into another mode with a remote control unit, internal signal or internal timer. (*mode arrêt*)

on mode means the mode in which a room air conditioner, while connected to mains power, cools or heats the conditioned space or circulates air with its fan or blower. (*mode marche*)

portable air conditioner means a single package air conditioner, with or without mounted wheels, that is portable and that

- (a) is represented by the configurations shown in Table 1 of CSA C370; and
- (b) has a cooling capacity of less than 19 kW (65,000 Btu/h). (*climatiseur portatif*)

room air conditioner means a single-phase electric air conditioner that has a cooling capacity of 10.55 kW (36,000 Btu/h) or less. It does not include a packaged terminal air conditioner, a portable air conditioner or a single package vertical air conditioner. (*climatiseur individuel*)

standby mode means the mode in which a room air conditioner, while connected to mains power, provides no air circulation, but can be switched into another mode with a remote control unit, internal signal or internal timer. (*mode veille*)

Type

109 For the purposes of these Regulations, a room air conditioner is one of the following types:

- (a) 120 V louvered with reverse cycle;
- (b) 120 V louvered without reverse cycle;
- (c) 120 V non-louvered with reverse cycle;
- (d) 120 V non-louvered without reverse cycle;
- (e) 120 V casement-only;
- (f) 120 V casement-slider;
- (g) 240 V louvered with reverse cycle;
- (h) 240 V louvered without reverse cycle;

- (i) 240 V non-louvred with reverse cycle;
- (j) 240 V non-louvred without reverse cycle;
- (k) 240 V casement-only; or
- (l) 240 V casement-slider.

Cooling capacity category

110 For the purposes of these Regulations, the cooling capacity category of a room air conditioner is

- (a) if the product was manufactured before June 1, 2014, the applicable cooling capacity range set out in Table 2 of CSA C368.1; or
- (b) if the product is manufactured on or after June 1, 2014, the applicable cooling capacity category set out in column 2 of the table to section 112.

Energy-using product

111 (1) A room air conditioner is prescribed as an energy-using product.

Limit

(2) However, for the purposes of sections 4, 5, 13 to 15 and 112, a room air conditioner is not considered to be an energy-using product unless it is manufactured on or after February 3, 1995.

Energy efficiency standards

112 (1) The energy efficiency standards set out in column 2 of the table to this section apply to room air conditioners described in column 1 that are manufactured during the periods set out in column 3.

Testing standard

(2) A room air conditioner complies with the energy efficiency standard if it meets the standard in the following circumstances:

- (a) if it was manufactured before June 1, 2014, when it is tested in accordance with the testing procedures established by CSA C368.1 that are applicable to a *room air conditioner* as defined in section 108; or
- (b) if it is manufactured on or after June 1, 2014, when the CEER is calculated in accordance with subsection (3).

Calculation of CEER

(3) In respect of a room air conditioner that is manufactured on or after June 1, 2014, compliance with the energy efficiency standard is to be determined by calculating the CEER in accordance with one of the following formulae:

(a) if the product has standby mode or off mode, but not both, the CEER must be calculated as follows:

$$\text{CEER} = (3\ 412 \times A \times 750) / (B \times 750 + C \times 5\ 115)$$

where

A is the product's cooling capacity, expressed in kilowatts, derived by testing the product in accordance with the testing procedures established by CSA C368.1 that are applicable to a *room air conditioner* as defined in section 108,

B is the product's on mode power, expressed in watts, derived by testing the product in accordance with the testing procedures established by CSA C368.1 that are applicable to a *room air conditioner* as defined in section 108, and

C is the product's standby mode power or off mode power, as applicable, expressed in watts, derived by testing the product in accordance with the testing procedures established by CSA C62301 that are applicable to a *room air conditioner* as defined in section 108; or

(b) if the product has both standby mode and off mode, the CEER must be calculated as follows:

$$\text{CEER} = (3\,412 \times A \times 750) / (B \times 750 + C \times 2\,557.5 + D \times 2\,557.5)$$

where

A is the product's cooling capacity, expressed in kilowatts, derived by testing the product in accordance with the testing procedures established by CSA C368.1 that are applicable to a *room air conditioner* as defined in section 108,

B is the product's on mode power, expressed in watts, derived by testing the product in accordance with the testing procedures established by CSA C368.1 that are applicable to a *room air conditioner* as defined in section 108,

C is the product's standby mode power, expressed in watts, derived by testing the product in accordance with the testing procedures established by CSA C62301 that are applicable to a *room air conditioner* as defined in section 108, and

D is the product's off mode power, expressed in watts, derived by testing the product in accordance with the testing procedures established by CSA C62301 that are applicable to a *room air conditioner* as defined in section 108.

TABLE

	Column 1	Column 2	Column 3
Item	Energy-using Product	Energy Efficiency Standard	Period of Manufacture
1	Room air conditioners	CSA C368.1, Table 2, second column	On or after February 3, 1995 and before June 1, 2014
2	Room air conditioners that are louvred without reverse cycle	<p>(a) product that has a cooling capacity category of < 2.3 kW (8,000 Btu/h), CEER ≥ 11.0;</p> <p>(b) product that has a cooling capacity category of ≥ 2.3 kW (8,000 Btu/h) but < 4.1 kW (14,000 Btu/h), CEER ≥ 10.9;</p> <p>(c) product that has a cooling capacity category of ≥ 4.1 kW (14,000 Btu/h) but < 5.9 kW (20,000 Btu/h), CEER ≥ 10.7;</p> <p>(d) product that has a cooling capacity category of ≥ 5.9 kW (20,000 Btu/h) but < 8.2 kW (28,000 Btu/h), CEER ≥ 9.4; or</p> <p>(e) product that has a cooling capacity category of ≥ 8.2 kW (28,000 Btu/h) but ≤ 10.55 kW (36,000 Btu/h), CEER ≥ 9.0.</p>	On or after June 1, 2014
3	Room air conditioners that are louvred with reverse cycle	<p>(a) product that has a cooling capacity category of < 5.9 kW (20,000 Btu/h), CEER ≥ 9.8; or</p> <p>(b) product that has a cooling capacity category of ≥ 5.9 kW (20,000 Btu/h) but ≤ 10.55 kW (36,000 Btu/h), CEER ≥ 9.3.</p>	On or after June 1, 2014

4	Room air conditioners that are non-louvred without reverse cycle	<p>(a) product that has a cooling capacity category of < 2.3 kW (8,000 Btu/h), CEER ≥ 10.0;</p> <p>(b) product that has a cooling capacity category of ≥ 2.3 kW (8,000 Btu/h) but < 3.2 kW (11,000 Btu/h), CEER ≥ 9.6;</p> <p>(c) product that has a cooling capacity category of ≥ 3.2 kW (11,000 Btu/h) but < 4.1 kW (14,000 Btu/h), CEER ≥ 9.5;</p> <p>(d) product that has a cooling capacity category of ≥ 4.1 kW (14,000 Btu/h) but < 5.9 kW (20,000 Btu/h), CEER ≥ 9.3; or</p> <p>(e) product that has a cooling capacity category of ≥ 5.9 kW (20,000 Btu/h) but ≤ 10.55 kW (36,000 Btu/h), CEER ≥ 9.4.</p>	On or after June 1, 2014
5	Room air conditioners that are non-louvered with reverse cycle	<p>(a) product that has a cooling capacity category of < 4.1 kW (14,000 Btu/h), CEER ≥ 9.3; or</p> <p>(b) product that has a cooling capacity category of ≥ 4.1 kW (14,000 Btu/h) but ≤ 10.55 kW (36,000 Btu/h), CEER ≥ 8.7.</p>	On or after June 1, 2014
6	Room air conditioners that are casement-only	CEER ≥ 9.5	On or after June 1, 2014
7	Room air conditioners that are casement-slider	CEER ≥ 10.4	On or after June 1, 2014

Information

113 For the purpose of subsection 5(1) of the Act, the information set out in column 3 of the table to this section must be collected in accordance with the standard or provision set out in column 2 and provided to the Minister in respect of a room air conditioner described in column 1.

TABLE

Item	Column 1 Energy-using Product	Column 2 Standard	Column 3 Information
1	Room air conditioners manufactured before June 1, 2014	CSA C368.1, for information set out in paragraphs (b) to (d).	<p>(a) type;</p> <p>(b) power input;</p> <p>(c) cooling capacity, in kW (Btu/h); and</p> <p>(d) energy efficiency ratio.</p>

Form of labelling

114 A room air conditioner must be labelled

- (a) if it was manufactured before June 1, 2014, in the form set out in Schedule 2; or
- (b) if it is manufactured on or after June 1, 2014, in the form set out in Schedule 3.

Manner of labelling

115 The label must either be displayed on the principal display panel of the product's package or must be one of the following:

- (a) an adhesive tag that meets the requirements of section 14 and that is attached to the product or the principal display panel of its package;
- (b) a flap tag that meets the requirements of section 14 and that is attached to the product; or
- (c) a hang tag that meets the requirements of section 15 and that is attached to the product.

SUBDIVISION B

Large Air Conditioners

Definitions

116 The following definitions apply in this Subdivision.

AHRI 340/360 means the AHRI standard ANSI/AHRI 340/360-2007 entitled *Performance Rating of Commercial and Industrial Unitary Air-Conditioning and Heat Pump Equipment. (AHRI 340/360)*

IEER means the integrated energy efficiency ratio, expressed in British thermal units per watt hour, that constitutes a single number cooling part-load efficiency metric of a large air conditioner. (*IEER*)

large air conditioner means a commercial or industrial unitary air conditioner with a cooling capacity of at least 19 kW (65,000 Btu/h) but less than 223 kW (760,000 Btu/h). It does not include a single package vertical air conditioner. (*climatiseur de grande puissance*)

Energy-using product

117 (1) A large air conditioner is prescribed as an energy-using product.

Limits

(2) However, for the purposes of sections 4, 5 and 118, a large air conditioner is not considered to be an energy-using product unless

- (a) in the case of a large air conditioner with a cooling capacity of less than 70 kW, it is manufactured on or after December 31, 1998; and
- (b) in the case of a large air conditioner with a cooling capacity of 70 kW or more, it is manufactured on or after January 1, 2010.

Energy efficiency standards — cooled by air

118 (1) The energy efficiency standards set out in column 3 of Table 1 to this section apply to large air conditioners that are cooled by air and described in column 1 and that are manufactured during the period set out in column 4.

Energy efficiency standards — cooled by water or evaporation

(2) The energy efficiency standards set out in column 3 of Table 2 to this section apply to large air conditioners that are cooled by water or evaporation and described in column 1 and that are manufactured during the period set out in column 4.

Testing standard

(3) A large air conditioner complies with the energy efficiency standard set out in column 3 if it meets that standard when tested in accordance with testing procedures established by the standard set out in column 2 that are applicable to a *large air conditioner* as defined in section 116.

TABLE 1

	Column 1	Column 2	Column 3	Column 4
Item	Energy-using Product	Standard	Energy Efficiency Standard	Period of Manufacture
1	Large air conditioners that have a cooling capacity of ≥ 19 kW and < 40 kW and either without a heating section or with an electric heating section	CSA C746-98	Energy efficiency ratio ≥ 10.3	On or after December 31, 1998 and before January 1, 2010
2	Large air conditioners that have a cooling capacity of ≥ 19 kW and < 40 kW and either without a heating section or with an electric heating section	CSA C746-06 for energy efficiency ratio AHRI 340/360 for IEER	Energy efficiency ratio ≥ 11.2 IEER ≥ 11.4	On or after January 1, 2010
3	Large air conditioners that have a cooling capacity of ≥ 40 kW and < 70 kW and either without a heating section or with an electric heating section	CSA C746-98	Energy efficiency ratio ≥ 9.7	On or after December 31, 1998 and before January 1, 2010
4	Large air conditioners that have a cooling capacity of ≥ 40 kW and < 70 kW and either without a heating section or with an electric heating section	CSA C746-06 for energy efficiency ratio AHRI 340/360 for IEER	Energy efficiency ratio ≥ 11.0 IEER ≥ 11.2	On or after January 1, 2010
5	Large air conditioners that have a cooling capacity of ≥ 70 kW and < 223 kW and either without a heating section or with an electric heating section	CSA C746-06 for energy efficiency ratio AHRI 340/360 for IEER	Energy efficiency ratio ≥ 10.0 IEER ≥ 10.1	On or after January 1, 2010
6	Large air conditioners that have a cooling capacity of ≥ 19 kW and < 40 kW and a heating section other than an electric heating section	CSA C746-98	Energy efficiency ratio ≥ 10.1	On or after December 31, 1998 and before January 1, 2010

7	Large air conditioners that have a cooling capacity of \geq 19 kW and $<$ 40 kW and a heating section other than an electric heating section	CSA C746-06 for energy efficiency ratio AHRI 340/360 for IEER	Energy efficiency ratio \geq 11.0 IEER \geq 11.2	On or after January 1, 2010
8	Large air conditioners that have a cooling capacity of \geq 40 kW and $<$ 70 kW and a heating section other than an electric heating section	CSA C746-98	Energy efficiency ratio \geq 9.5	On or after December 31, 1998 and before January 1, 2010
9	Large air conditioners that have a cooling capacity of \geq 40 kW and $<$ 70 kW and a heating section other than an electric heating section	CSA C746-06 for energy efficiency ratio AHRI 340/360 for IEER	Energy efficiency ratio \geq 10.8 IEER \geq 11.0	On or after January 1, 2010
10	Large air conditioners that have a cooling capacity of \geq 70 kW and $<$ 223 kW and a heating section other than an electric heating section	CSA C746-06 for energy efficiency ratio AHRI 340/360 for IEER	Energy efficiency ratio \geq 9.8 IEER \geq 9.9	On or after January 1, 2010

TABLE 2

	Column 1	Column 2	Column 3	Column 4
Item	Energy-using Product	Standard	Energy Efficiency Standard	Period of Manufacture
1	Large air conditioners that have a cooling capacity of \geq 19 kW and $<$ 40 kW and either without a heating section or with an electric heating section	CSA C746-98	Energy efficiency ratio \geq 11.5	On or after December 31, 1998 and before January 1, 2010
2	Large air conditioners that have a cooling capacity of \geq 19 kW and $<$ 40 kW and either without a heating section or with an electric heating section	CSA C746-06 for energy efficiency ratio AHRI 340/360 for IEER	Energy efficiency ratio \geq 11.5 IEER \geq 11.7	On or after January 1, 2010
3	Large air conditioners that have a cooling capacity of \geq 40 kW and $<$ 70 kW and either without	CSA C746-98	Energy efficiency ratio \geq 11.0	On or after December 31, 1998 and before January

	a heating section or with an electric heating section			1, 2010
4	Large air conditioners that have a cooling capacity of ≥ 40 kW and < 70 kW and either without a heating section or with an electric heating section	CSA C746-06 for energy efficiency ratio AHRI 340/360 for IEER	Energy efficiency ratio ≥ 11.0 IEER ≥ 11.2	On or after January 1, 2010
5	Large air conditioners that have a cooling capacity of ≥ 19 kW and < 40 kW and a heating section other than an electric heating section	CSA C746-98	Energy efficiency ratio ≥ 11.3	On or after December 31, 1998 and before January 1, 2010
6	Large air conditioners that have a cooling capacity of ≥ 19 kW and < 40 kW and a heating section other than an electric heating section	CSA C746-06 for energy efficiency ratio AHRI 340/360 for IEER	Energy efficiency ratio ≥ 11.3 IEER ≥ 11.5	On or after January 1, 2010
7	Large air conditioners that have a cooling capacity of ≥ 40 kW and < 70 kW and a heating section other than an electric heating section	CSA C746-98	Energy efficiency ratio ≥ 10.8	On or after December 31, 1998 and before January 1, 2010
8	Large air conditioners that have a cooling capacity of ≥ 40 kW and < 70 kW and a heating section other than an electric heating section	CSA C746-06 for energy efficiency ratio AHRI 340/360 for IEER	Energy efficiency ratio ≥ 10.8 IEER ≥ 11.0	On or after January 1, 2010
9	Large air conditioners that have a cooling capacity of ≥ 70 kW and < 223 kW and either no heating section or with an electric heating section	CSA C746-06 for energy efficiency ratio AHRI 340/360 for IEER	Energy efficiency ratio ≥ 11.0 IEER ≥ 11.1	On or after January 1, 2010
10	Large air conditioners that have a cooling capacity of ≥ 70 kW and < 223 kW and a heating section other than an electric heating section	CSA C746-06 for energy efficiency ratio	Energy efficiency ratio ≥ 10.8 IEER ≥ 10.9	On or after January 1, 2010

Information

119 For the purpose of subsection 5(1) of the Act, the information set out in column 3 of the table to this section must be collected in accordance with the standard set out in column 2 and provided to the Minister in respect of a large air conditioner described in column 1.

TABLE

	Column 1	Column 2	Column 3
Item	Energy-using Product	Standard	Information
1	Large air conditioners manufactured on or after December 31, 1998 and before January 1, 2010	CSA C746-98	(a) product classification set out in Column II of Table 1 of CSA C746-98; (b) cooling capacity, in kW (Btu/h); and (c) energy efficiency ratio.
2	Large air conditioners manufactured on or after January 1, 2010	CSA C746-06 AHRI 340/360 for IEER	(a) product classification set out in Column II of Table 1 of CSA C746-06; (b) cooling capacity, in kW (Btu/h); (c) energy efficiency ratio; and (d) IEER.

SUBDIVISION C

Packaged Terminal Air Conditioners

Definitions

120 The following definitions apply in this Subdivision.

CSA C744-04 means the joint CSA and AHRI standard ANSI/AHRI 310/380-2004/CAN/CSA-C744-04 entitled *Standard for Packaged Terminal Air Conditioners and Heat Pumps. (CSA C744-04)*

CSA C744-14 means the joint CSA and AHRI standard ANSI/AHRI 310/380-2014/CAN/CSA-C744-14 entitled *Standard for Packaged Terminal Air Conditioners and Heat Pumps. (CSA C744-14)*

packaged terminal air conditioner means a factory-built packaged terminal air conditioner that consists of

- (a) a wall sleeve and a separate unencased cooling component and is intended to cool a single room or zone; or
- (b) a wall sleeve and a separate unencased combination of heating and cooling components and is intended to heat and cool a single room or zone. (*climatiseur terminal autonome*)

Energy-using product

121 (1) A packaged terminal air conditioner is prescribed as an energy-using product.

Limit

(2) However, for the purposes of sections 4, 5 and 122, a packaged terminal air conditioner is not considered to be an energy-using product unless it is manufactured on or after December 31, 1998.

Energy efficiency standards

122 (1) The energy efficiency standards set out in column 2 of the table to this section apply to packaged terminal air conditioners that are manufactured during the periods set out in column 3.

Testing standard

(2) A packaged terminal air conditioner complies with the energy efficiency standard if it meets that standard when tested in accordance with testing procedures established by the standard set out in column 1 that are applicable to a *packaged terminal air conditioner* as defined in section 120.

TABLE

	Column 1	Column 2	Column 3
Item	Standard	Energy Efficiency Standard	Period of Manufacture
1	CSA C744-04	CSA C744-04, Table 2	On or after December 31, 1998 and before September 30, 2012
2	CSA C744-14	CSA C744-14, Table 2	On or after September 30, 2012

Information

123 (1) For the purpose of subsection 5(1) of the Act, the following information must be provided to the Minister in respect of a packaged terminal air conditioner:

- (a) its cooling capacity, expressed in kilowatts (British thermal units per hour);
- (b) its energy efficiency ratio; and
- (c) if applicable, identification of the product as a replacement unit.

Standard

(2) The information must be collected in accordance with

- (a) CSA C744-04, if the product was manufactured on or after December 31, 1998 and before September 30, 2012; or
- (b) CSA C744-14, if the product is manufactured on or after September 30, 2012.

SUBDIVISION D

Single Package Central Air Conditioners

Definitions

124 The following definitions apply in this Subdivision.

single package central air conditioner means a single-phase or three-phase central air conditioner that is a single package unit and that has a cooling capacity of less than 19 kW (65,000 Btu/h). It does not include a single package vertical air conditioner. (*climatiseur central monobloc*)

through-the-wall, in respect of a single package central air conditioner, means one that has a cooling

capacity less than or equal to 8.79 kW (30,000 Btu/h) and that is designed to be installed through an exterior wall. (*mural*)

Energy-using product

125 (1) A single package central air conditioner is prescribed as an energy-using product.

Limit

(2) However, for the purposes of sections 4, 5 and 126, a single package central air conditioner is not considered to be an energy-using product unless it is manufactured on or after February 3, 1995.

Energy efficiency standards

126 (1) The energy efficiency standards set out in column 3 of the table to this section apply to single package central air conditioners described in column 1 that are manufactured during the periods set out in column 4.

Testing standard

(2) A single package central air conditioner complies with the energy efficiency standard if it meets that standard when tested in accordance with testing procedures established by the standard set out in column 2 that are applicable to a *single package central air conditioner* as defined in section 124.

TABLE

Item	Column 1 Energy-using Product	Column 2 Standard	Column 3 Energy Efficiency Standard	Column 4 Period of Manufacture
1	Single package central air conditioners, other than those that are through-the-wall or small-duct and high-velocity	CSA C656-05	Seasonal energy efficiency ratio ≥ 13.0	On or after February 3, 1995 and before January 1, 2017
2	Single package central air conditioners, other than those that are through-the-wall or small-duct and high-velocity	CSA C656-14	Seasonal energy efficiency ratio ≥ 14.0	On or after January 1, 2017
3	Single package central air conditioners that are through-the-wall	CSA C656-05	Seasonal energy efficiency ratio ≥ 10.6	On or after February 3, 1995 and before January 23, 2010
4	Single package central air conditioners that are through-the-wall	CSA C656-05	Seasonal energy efficiency ratio ≥ 12.0	On or after January 23, 2010
5	Single package central air conditioners that are small-duct and high-velocity	CSA C656-05	Seasonal energy efficiency ratio ≥ 13.0	On or after February 3, 1995 and before January 1, 2017

6	Single package central air conditioners that are small-duct and high-velocity	CSA C656-14	Seasonal energy efficiency ratio ≥ 12.0	On or after January 1, 2017
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Information

127 For the purpose of subsection 5(1) of the Act, the information set out in column 3 of the table to this section must be collected in accordance with the standard set out in column 2 and provided to the Minister in respect of a single package central air conditioner described in column 1.

TABLE

Item	Column 1 Energy-using Product	Column 2 Standard	Column 3 Information
1	Single package central air conditioners, other than those that are through-the-wall, manufactured on or after February 3, 1995 and before January 1, 2017	CSA C656-05	<p>(a) product classification set out in Column II of Table 1 of CSA C656-05;</p> <p>(b) phase of electric current;</p> <p>(c) cooling capacity, in kW (Btu/h);</p> <p>(d) information that indicates whether the product is through-the-wall; and</p> <p>(e) seasonal energy efficiency ratio.</p>
2	Single package central air conditioners, other than those that are through-the-wall, manufactured on or after January 1, 2017	CSA C656-14	<p>(a) product classification set out in Column II of Table 1 of CSA C656-14;</p> <p>(b) phase of electric current;</p> <p>(c) cooling capacity, in kW (Btu/h);</p> <p>(d) information that indicates whether the product is small-duct and high-velocity; and</p> <p>(e) seasonal energy efficiency ratio.</p>
3	Single package central air conditioners that are through-the-wall and manufactured on or after February 3, 1995	CSA C656-05	<p>(a) product classification set out in Column II of Table 1 of CSA C656-05;</p> <p>(b) phase of electric current;</p> <p>(c) cooling capacity, in</p>

kW (Btu/h);
 (d) information that indicates whether the product is through-the-wall; and
 (e) seasonal energy efficiency ratio.

SUBDIVISION E

Single Package Vertical Air Conditioners

Definition of *single package vertical air conditioner*

128 In this Subdivision, *single package vertical air conditioner* means a single package commercial air conditioner, with or without heating capability, that has its major components arranged vertically, is air-cooled and encased and is intended for mounting through, or on either side of, an exterior wall. It does not include a single package commercial air conditioner that has reverse cycle refrigeration.

Energy-using product

129 (1) A single package vertical air conditioner is prescribed as an energy-using product.

Limit

(2) However, for the purposes of sections 4, 5 and 130, a single package vertical air conditioner is not considered to be an energy-using product unless it is manufactured on or after January 1, 2011.

Energy efficiency standards

130 (1) The energy efficiency standards set out in column 2 of the table to this section apply to single package vertical air conditioners described in column 1 that are manufactured on or after January 1, 2011.

Testing standard

(2) A single package vertical air conditioner complies with the energy efficiency standard if it meets that standard when tested in accordance with testing procedures established by CSA C746-06 that are applicable to a *single package vertical air conditioner* as defined in section 128.

TABLE

	Column 1	Column 2
Item	Energy-using Product	Energy Efficiency Standard
1	Single package vertical air conditioners that have a cooling capacity of < 19 kW (65,000 Btu/h)	Energy efficiency ratio ≥ 9.0
2	Single package vertical air conditioners that have a cooling capacity of ≥ 19 kW (65,000 Btu/h) and < 39.5 kW (135,000 Btu/h)	Energy efficiency ratio ≥ 8.9
3	Single package vertical air conditioners that have a cooling capacity of ≥ 39.5 kW (135,000 Btu/h)	Energy efficiency ratio ≥ 8.6

Information

131 For the purpose of subsection 5(1) of the Act, the following information must be collected in accordance with CSA C746-06 and provided to the Minister in respect of a single package vertical air conditioner:

- (a) its classification as set out in column II of Table 1 of CSA C746-06;
- (b) its cooling capacity, expressed in kilowatts (British thermal units per hour); and
- (c) its energy efficiency ratio.

SUBDIVISION F

Split-System Central Air Conditioners

Definition of *split-system central air conditioner*

132 In this Subdivision, *split-system central air conditioner* means a single-phase or three-phase central air conditioner that is a split-system and that has a cooling capacity of less than 19 kW (65,000 Btu/h).

Energy-using product

133 (1) A split-system central air conditioner is prescribed as an energy-using product.

Limit

(2) However, for the purposes of sections 4, 5 and 134, a split-system central air conditioner is not considered to be an energy-using product unless it is manufactured on or after February 3, 1995.

Energy efficiency standards

134 (1) The energy efficiency standards set out in column 3 of the table to this section apply to split-system central air conditioners described in column 1 that are manufactured during the periods set out in column 4.

Testing standard

(2) A split-system central air conditioner complies with the energy efficiency standard if it meets that standard when tested in accordance with testing procedures established by the standard set out in column 2 that are applicable to a *split-system central air conditioner* as defined in section 132.

TABLE

Item	Column 1 Energy-using Product	Column 2 Standard	Column 3 Energy Efficiency Standard	Column 4 Period of Manufacture
1	Split-system central air conditioners, other than those that are small-duct and high-velocity	CSA C656-05	Seasonal energy efficiency ratio ≥ 13.0	On or after February 3, 1995 and before January 1, 2017
2	Split-system central air conditioners, other than those that are small-duct and high-velocity	CSA C656-14	Seasonal energy efficiency ratio ≥ 13.0	On or after January 1, 2017
3	Split-system central air conditioners that are small-duct and high-velocity	CSA C656-05	Seasonal energy efficiency ratio ≥ 11.0	On or after February 3, 1995 and before January 1, 2017

Information

135 For the purpose of subsection 5(1) of the Act, the information set out in column 3 of the table to this section must be collected in accordance with the standard set out in column 2 and provided to the Minister in respect of a split-system central air conditioner described in column 1.

TABLE

	Column 1	Column 2	Column 3
Item	Energy-using Product	Standard	Information
1	Split-system central air conditioners manufactured on or after February 3, 1995 and before January 1, 2017	CSA C656-05	(a) product classification set out in Column II of Table 1 of CSA C656-05; (b) phase of electric current; (c) cooling capacity, in kW (Btu/h); (d) information that indicates whether the product is small-duct and high-velocity; (e) the system the product has, namely, mini-split, multi-split or ducted; and (f) seasonal energy efficiency ratio.
2	Split-system central air conditioners manufactured on or after January 1, 2017	CSA C656-14	(a) product classification set out in Column II of Table 1 of CSA C656-14; (b) phase of electric current; (c) cooling capacity, in kW (Btu/h); (d) information that indicates whether the product is small-duct and high-velocity; (e) the system the product has, namely, mini-split, multi-split or ducted; and (f) seasonal energy efficiency ratio.

SUBDIVISION G

Large Condensing Units

Definition of *large condensing unit*

136 In this Subdivision, *large condensing unit* means a commercial or industrial condensing unit that is intended for air conditioning applications and that has a cooling capacity of at least 19 kW (65,000 Btu/h) but not more than 70 kW (240,000 Btu/h).

Energy-using product

137 (1) A large condensing unit is prescribed as an energy-using product.

Limit

(2) However, for the purposes of sections 4, 5 and 138, a large condensing unit is not considered to be an energy-using product unless it is manufactured on or after December 31, 1998.

Energy efficiency standards

138 (1) The energy efficiency standards set out in column 2 of the table to this section apply to large condensing units described in column 1.

Testing standard

(2) A large condensing unit complies with the energy efficiency standard if it meets that standard when tested in accordance with testing procedures established by CSA C746-98 that are applicable to a *large condensing unit* as defined in section 136.

TABLE

	Column 1	Column 2
Item	Energy-using Product	Energy Efficiency Standard
1	Large condensing units that are cooled by air	Energy efficiency ratio ≥ 10.1
2	Large condensing units that are cooled by water or evaporation	Energy efficiency ratio ≥ 13.1

Information

139 For the purpose of subsection 5(1) of the Act, the following information must be collected in accordance with CSA C746-98 and provided to the Minister in respect of a large condensing unit:

- (a) its classification as set out in Column II of Table 1 of CSA C746-98;
- (b) its cooling capacity, expressed in kilowatts (British thermal units per hour); and
- (c) its energy efficiency ratio.

SUBDIVISION H

Chillers

Definitions

140 The following definitions apply in this Subdivision.

chiller means a machine, with or without an integral refrigerant condenser, that is designed to use a refrigerant cycle to remove heat from a liquid and to reject the heat to a cooling medium. (*refroidisseur*)

CSA C743-02 means the CSA standard CAN/CSA-C743-02 entitled *Performance Standard for Rating Packaged Water Chillers*. (*CSA C743-02*)

CSA C743-09 means the CSA standard CAN/CSA-C743-09 entitled *Performance Standard for Rating Packaged Water Chillers*. (*CSA C743-09*)

Energy-using product

141 (1) A chiller is prescribed as an energy-using product.

Limit

(2) However, for the purposes of sections 4, 5 and 142, a chiller is not considered to be an energy-using product unless it is manufactured on or after October 28, 2004.

Energy efficiency standards

142 (1) The energy efficiency standards set out in column 2 of the table to this section apply to chillers that are manufactured during the periods set out in column 3.

Testing standard

(2) The chiller complies with the energy efficiency standard if it meets that standard when tested in accordance with testing procedures established by the standard set out in column 1 that are applicable to a *chiller* as defined in section 140.

TABLE

	Column 1	Column 2	Column 3
Item	Standard	Energy Efficiency Standard	Period of Manufacture
1	CSA C743-02	CSA C743-02, Tables 9 to 15	On or after October 28, 2004 and before January 1, 2017
2	CSA C743-09	Product's coefficient of performance and integrated part-load value must meet those applicable to the product in CSA C743-09, Path A or Path B, Table 10	On or after January 1, 2017

Information

143 For the purpose of subsection 5(1) of the Act, the information set out in column 3 of the table to this section must be collected in accordance with the standard set out in column 2 and provided to the Minister in respect of a chiller described in column 1.

TABLE

	Column 1	Column 2	Column 3
Item	Energy-using Product	Standard	Information
1	Chillers manufactured on or after October 28, 2004 and before January 1, 2017	CSA C743-02	(a) type; (b) net cooling/heating capacity, in kW (tons); (c) coefficient of performance; and (d) integrated part-load value or non-standard part-load value and a list of non-standard conditions.
2	Chillers manufactured on or after January 1, 2017	CSA C743-09	(a) type; (b) net cooling/heating capacity, in kW (tons);

- (c) coefficient of performance;
- (d) compliance Path for the energy-efficiency standard, namely, Path A or Path B of Table 10 to CSA C743-09; and
- (e) integrated part-load value or non-standard part-load value and a list of non-standard conditions.

[144 to 185 reserved]

DIVISION 3

Heat Pumps

Interpretation

Definitions

186 The following definitions apply in this Division.

CSA C656-05 means the CSA standard CAN/CSA-C656-05 entitled *Performance Standard for Split-System and Single-Package Central Air Conditioners and Heat Pumps*. (CSA C656-05)

CSA C656-14 means the CSA standard CAN/CSA-C656-14 entitled *Performance Standard for Split-System and Single-Package Central Air Conditioners and Heat Pumps*. (CSA C656-14)

CSA C746-06 means the CSA standard CAN/CSA-C746-06 entitled *Performance Standard for Rating Large and Single Packaged Vertical Air Conditioners and Heat Pumps*. (CSA C746-06)

CSA C13256-1 means the CSA standard CAN/CSA-C13256-1-01 entitled *Water-Source Heat Pumps — Testing and Rating for Performance — Part 1: Water-to-Air and Brine-to-Air Heat Pumps*. (CSA C13256-1)

small-duct and high-velocity, with respect to a split-system heat pump or a single package heat pump, means one that has an indoor blower and coil combination that

- (a) produces at least 300 Pa (1.2 inches of water) external static pressure when operated at an air volume rate of 104 to 165 L/s (220 to 350 cubic feet/minute) per nominal ton of cooling; and
- (b) uses room outlets that produce velocities greater than 5 m/s (1,000 feet/minute) and that each have an area less than 39 cm² (6 square inches). (*à grand débit et à petits conduits*)

SUBDIVISION A

Ground-Source Heat Pumps

Definitions

187 The following definitions apply in this Subdivision.

CSA C446-94 means the CSA standard CAN/CSA-C446-94 entitled *Performance of Ground-Source Heat Pumps*. (CSA C446-94)

ground-source heat pump means a single package or split-system heat pump that is factory-built, has a cooling or heating capacity of less than 40 kW (135,000 Btu/h) and is intended for application in an open- or closed-loop ground-source system. (*thermopompe géothermique*)

Energy-using product

188 (1) A ground-source heat pump is prescribed as an energy-using product.

Limit

(2) However, for the purposes of sections 4, 5 and 189, a ground-source heat pump is not considered to be an energy-using product unless it is manufactured on or after February 3, 1995.

Energy efficiency standards

189 (1) The energy efficiency standards set out in column 2 of the table to this section apply to ground-source heat pumps that are manufactured during the periods set out in column 3.

Testing standard

(2) A ground source heat pump complies with the energy efficiency standard if it meets that standard when tested in accordance with testing procedures established by the standard set out in column 1 that are applicable to a *ground source heat pump* as defined in section 187.

TABLE

	Column 1	Column 2	Column 3
Item	Standard	Energy Efficiency Standard	Period of Manufacture
1	CSA C446-94	CSA C446-94, Table 2	On or after February 3, 1995 and before June 1, 2006
2	CSA C13256-1	CSA C13256-1, Table 10A, first row, for the open-loop system CSA C13256-1, Table 10A, second row, for the closed-loop system	On or after June 1, 2006

Information

190 (1) For the purpose of subsection 5(1) of the Act, the following information must be provided to the Minister in respect of a ground-source heat pump:

- (a) its AHRI type classification;
- (b) its cooling capacity, expressed in kilowatts (British thermal units per hour);
- (c) its cooling coefficient of performance;
- (d) its heating capacity, expressed in kilowatts (British thermal units per hour);
- (e) its heating coefficient of performance; and
- (f) the ground-source system for which the product is intended, namely, open-loop, closed-loop or both open-loop and closed-loop.

Standard

(2) The information must be collected in accordance with

- (a) CSA C446-94, if the product was manufactured on or after February 3, 1995 and before June 1, 2006; or
- (b) CSA C13256-1, if the product is manufactured on or after June 1, 2006.

SUBDIVISION B

Internal Water Loop Heat Pumps

Definition of *internal water loop heat pump*

191 In this Subdivision, *internal water loop heat pump* means a water-source single package or split-system

heat pump that is a factory-built, is intended for installation in an internal water loop system and has a cooling or heating capacity of not more than 40 kW (135,000 Btu/h).

Energy-using product

192 (1) An internal water loop heat pump is prescribed as an energy-using product.

Limit

(2) However, for the purposes of sections 4, 5 and 193, an internal water loop heat pump is not considered to be an energy-using product unless it is manufactured on or after February 3, 1995.

Energy efficiency standards

193 (1) The energy efficiency standards set out in column 2 of the table to this section apply to internal water loop heat pumps described in column 1.

Testing standard

(2) An internal water loop heat pump complies with the energy efficiency standard if it meets that standard when tested in accordance with testing procedures established by CSA C13256-1 that are applicable to an *internal water loop heat pump* as defined in section 191.

TABLE

	Column 1	Column 2
Item	Energy-using Product	Energy Efficiency Standard
1	Internal water loop heat pumps that have a cooling capacity of < 5 kW	Cooling coefficient of performance ≥ 3.28 with 30°C inlet water Heating coefficient of performance ≥ 4.2 with 20°C inlet water
2	Internal water loop heat pumps that have a cooling capacity of ≥ 5 kW but ≤ 40 kW	Cooling coefficient of performance ≥ 3.52 with 30°C inlet water Heating coefficient of performance ≥ 4.2 with 20°C inlet water

Information

194 For the purpose of subsection 5(1) of the Act, the following information must be collected in accordance with CSA C13256-1 and provided to the Minister in respect of an internal water loop heat pump:

- (a) its AHRI type classification;
- (b) its voltage;
- (c) its cooling capacity, expressed in kilowatts (British thermal units per hour);
- (d) its cooling coefficient of performance with 30°C inlet water;
- (e) its heating capacity, expressed in kilowatts (British thermal units per hour); and
- (f) its heating coefficient of performance with 20°C inlet water.

SUBDIVISION C

Large Heat Pumps

Definitions

195 The following definitions apply in this Subdivision.

AHRI 340/360 means the AHRI standard ANSI/AHRI 340/360-2007 entitled *Performance Rating of Commercial and Industrial Unitary Air-Conditioning and Heat Pump Equipment*. (AHRI 340/360)

CSA C746-98 means the CSA standard CAN/CSA-C746-98 entitled *Performance Standard for Rating Large Air Conditioners and Heat Pumps*. (CSA C746-98)

IEER means the integrated energy efficiency ratio, expressed in British thermal units per watt hour, that constitutes a single number cooling part-load efficiency metric of a large heat pump. (IEER)

large heat pump means a commercial or industrial unitary heat pump that is intended for air-conditioning and space-heating applications and that has a cooling capacity of at least 19 kW (65,000 Btu/h) but less than 223 kW (760,000 Btu/h). It does not include a single package vertical heat pump. (*thermopompe de grande puissance*)

Energy-using product

196 (1) A large heat pump is prescribed as an energy-using product.

Limits

(2) However, for the purposes of sections 4, 5 and 197, a large heat pump is not considered to be an energy-using product unless

(a) in the case of a large heat pump with a cooling capacity that is less than 70 kW, it is manufactured on or after December 31, 1998; and

(b) in the case of a large heat pump with a cooling capacity that is greater than or equal to 70 kW, it is manufactured on or after January 1, 2010.

Energy efficiency standards

197 (1) The energy efficiency standards set out in column 3 of Table 1 to this section apply to large heat pumps described in column 1 that are manufactured during the periods set out in column 4 and that have no heating section or have an electric heating section.

Energy efficiency standards

(2) The energy efficiency standards set out in column 3 of Table 2 to this section apply to large heat pumps described in column 1 that are manufactured during the periods set out in column 4 and that have a heating section other than an electric heating section.

Testing standard

(3) A large heat pump complies with the energy efficiency standard set out in column 3 if it meets that standard when tested in accordance with testing procedures established by the standard set out in column 2 that are applicable to a *large heat pump* as defined in section 195.

TABLE 1

Item	Column 1 Energy-using Product	Column 2 Standard	Column 3 Energy Efficiency Standard	Column 4 Period of Manufacture
1	Large heat pumps that have a cooling capacity of ≥ 19 kW and < 40 kW	CSA C746-98	Energy efficiency ratio ≥ 10.1 Heating coefficient of	On or after December 31, 1998 and before January 1, 2010

			performance ≥ 3.2 with 8.3°C inlet air and ≥ 2.2 with -8.3°C inlet air	
2	Large heat pumps that have a cooling capacity of ≥ 19 kW and < 40 kW	CSA C746-06 for energy efficiency ratio and heating coefficient of performance AHRI 340/360 for IEER	Energy efficiency ratio ≥ 11.0 Heating coefficient of performance ≥ 3.3 with 8.3°C inlet air and ≥ 2.25 with -8.3°C inlet air IEER ≥ 11.2	On or after January 1, 2010
3	Large heat pumps that have a cooling capacity of ≥ 40 kW and < 70 kW	CSA C746-98	Energy efficiency ratio ≥ 9.3 Heating coefficient of performance ≥ 3.1 with 8.3°C inlet air and ≥ 2.0 with -8.3°C inlet air	On or after December 31, 1998 and before January 1, 2010
4	Large heat pumps that have a cooling capacity of ≥ 40 kW and < 70 kW	CSA C746-06 for energy efficiency ratio and heating coefficient of performance AHRI 340/360 for IEER	Energy efficiency ratio ≥ 10.6 Heating coefficient of performance ≥ 3.2 with 8.3°C inlet air and ≥ 2.05 with -8.3°C inlet air IEER ≥ 10.7	On or after January 1, 2010
5	Large heat pumps that have a cooling capacity of ≥ 70 kW and < 223 kW	CSA C746-06 for energy efficiency ratio and heating coefficient of performance AHRI 340/360 for IEER	Energy efficiency ratio ≥ 9.5 Heating coefficient of performance ≥ 3.2 with 8.3°C inlet air and ≥ 2.05 with -8.3°C inlet air IEER ≥ 9.6	On or after January 1, 2010

TABLE 2

Item	Column 1 Energy-using Product	Column 2 Standard	Column 3 Energy Efficiency Standard	Column 4 Period of Manufacture
1	Large heat pumps that have a cooling	CSA C746-98	Energy efficiency ratio ≥ 9.9	On or after December 31,

	capacity of ≥ 19 kW and < 40 kW		Heating coefficient of performance ≥ 3.2 with 8.3°C inlet air and ≥ 2.2 with -8.3°C inlet air	1998 and before January 1, 2010
2	Large heat pumps that have a cooling capacity of ≥ 19 kW and < 40 kW	CSA C746-06 for energy efficiency ratio and heating coefficient of performance AHRI 340/360 for IEER	Energy efficiency ratio ≥ 10.8 Heating coefficient of performance ≥ 3.3 with 8.3°C inlet air and ≥ 2.25 with -8.3°C inlet air IEER ≥ 11.0	On or after January 1, 2010
3	Large heat pumps that have a cooling capacity of ≥ 40 kW and < 70 kW	CSA C746-98	Energy efficiency ratio ≥ 9.1 Heating coefficient of performance ≥ 3.1 with 8.3°C inlet air and ≥ 2.0 with -8.3°C inlet air	On or after December 31, 1998 and before January 1, 2010
4	Large heat pumps that have a cooling capacity of ≥ 40 kW and < 70 kW	CSA C746-06 for energy efficiency ratio and heating coefficient of performance AHRI 340/360 for IEER	Energy efficiency ratio ≥ 10.4 Heating coefficient of performance ≥ 3.2 with 8.3°C inlet air and ≥ 2.05 with -8.3°C inlet air IEER ≥ 10.5	On or after January 1, 2010
5	Large heat pumps that have a cooling capacity of ≥ 70 kW and < 223 kW	CSA C746-06 for energy efficiency ratio and heating coefficient of performance AHRI 340/360 for IEER	Energy efficiency ratio ≥ 9.3 Heating coefficient of performance ≥ 3.2 with 8.3°C inlet air and ≥ 2.05 with -8.3°C inlet air IEER ≥ 9.4	On or after January 1, 2010

Information

198 For the purpose of subsection 5(1) of the Act, the information set out in column 3 of the table to this section must be collected in accordance with the standard set out in column 2 and provided to the Minister in respect of a large heat pump described in column 1.

TABLE

Item	Column 1	Column 2	Column 3
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Energy-using Product	Standard	Information
1	Large heat pumps manufactured on or after December 31, 1998 and before January 1, 2010	CSA C746-98 (a) product classification set out in columns II and III of Table 2 of CSA C746-98; (b) cooling capacity, in kW (Btu/h); (c) energy efficiency ratio; (d) heating capacity, in kW (Btu/h); (e) heating coefficient of performance at 8.3°C; (f) heating coefficient of performance at -8.3°C; and (g) if product has a heating section, its heating section type, namely, electric or gas.
2	Large heat pumps manufactured on or after January 1, 2010	CSA C746-06 AHRI 340/360 for IEER (a) product classification set out in columns II and III of Table 2 of CSA C746-06; (b) cooling capacity, in kW (Btu/h); (c) energy efficiency ratio; (d) heating capacity, in kW (Btu/h); (e) heating coefficient of performance at 8.3°C; (f) heating coefficient of performance at -8.3°C; (g) if product has a heating section, its heating section type, namely, electric or gas; and (h) IEER.

SUBDIVISION D

Packaged Terminal Heat Pumps

Definitions

199 The following definitions apply in this Subdivision.

CSA C744-04 means the joint CSA and AHRI standard ANSI/AHRI 310/380-2004/CAN/CSA-C744-04 entitled *Standard for Packaged Terminal Air Conditioners and Heat Pumps. (CSA C744-04)*

CSA C744-14 means the joint CSA and AHRI standard ANSI/AHRI 310/380-2014/CAN/CSA-C744-14 entitled *Standard for Packaged Terminal Air Conditioners and Heat Pumps. (CSA C744-14)*

packaged terminal heat pump means a factory-built packaged heat pump that consists of a separate unencased refrigeration system and uses reverse cycle refrigeration as its primary heat source. (*thermopompe terminale autonome*)

Energy-using product

200 (1) A packaged terminal heat pump is prescribed as an energy-using product.

Limit

(2) However, for the purposes of sections 4, 5 and 201, a packaged terminal heat pump is not considered to be an energy-using product unless it is manufactured on or after December 31, 1998.

Energy efficiency standards

201 (1) The energy efficiency standards set out in column 2 of the table to this section apply to packaged terminal heat pumps that are manufactured during the periods set out in column 3.

Testing standard

(2) A packaged terminal heat pump complies with the energy efficiency standard if it meets that standard when tested in accordance with testing procedures established by the standard set out in column 1 that are applicable to a *packaged terminal heat pump* as defined in section 199.

TABLE

	Column 1	Column 2	Column 3
Item	Standard	Energy Efficiency Standard	Period of Manufacture
1	CSA C744-04	CSA C744-04, Table 2	On or after December 31, 1998 and before September 30, 2012
2	CSA C744-14	CSA C744-14, Table 2	On or after September 30, 2012

Information

202 (1) For the purpose of subsection 5(1) of the Act, the following information must be provided to the Minister in respect of a packaged terminal heat pump:

- (a) its cooling capacity, expressed in kilowatts (British thermal units per hour);
- (b) its energy efficiency ratio;
- (c) its heating capacity, expressed in kilowatts (British thermal units per hour);
- (d) its heating coefficient of performance; and
- (e) if applicable, identification of the product as a replacement unit.

Standard

(2) The information must be collected in accordance with

- (a) CSA C744-04, if the product was manufactured on or after December 31, 1998 and before September 30, 2012; or
- (b) CSA C744-14, if the product is manufactured on or after September 30, 2012.

SUBDIVISION E

Single Package Heat Pumps

Definitions

203 The following definitions apply in this Subdivision.

single package heat pump means a single-phase or three-phase air-to-air heat pump that is a centrally ducted single package unit and has a cooling or heating capacity of less than 19 kW (65,000 Btu/h). It does

not include a single package vertical heat pump. (*thermopompe monobloc*)

through-the-wall, in respect of a single package heat pump, means one that has a cooling capacity less than or equal to 8.79 kW (30,000 Btu/h) and that is designed to be installed through an exterior wall. (*murale*)

Energy-using product

204 (1) A single package heat pump is prescribed as an energy-using product.

Limit

(2) However, for the purposes of sections 4, 5 and 205, a single package heat pump is not considered to be an energy-using product unless it is manufactured on or after February 3, 1995.

Energy efficiency standards

205 (1) The energy efficiency standards set out in column 3 of the table to this section apply to single package heat pumps described in column 1 that are manufactured during the periods set out in column 4.

Testing standard

(2) A single package heat pump complies with the energy efficiency standard if it meets that standard when tested in accordance with testing procedures established by the standard set out in column 2 that are applicable to a *single package heat pump* as defined in section 203.

TABLE

	Column 1	Column 2	Column 3	Column 4
Item	Energy-using Product	Standard	Energy Efficiency Standard	Period of Manufacture
1	Single package heat pumps, other than those that are through-the-wall or small-duct and high-velocity	CSA C656-05	Seasonal energy efficiency ratio ≥ 13.0 Heating seasonal performance factor (Region V) ≥ 6.7	On or after February 3, 1995 and before January 1, 2017
2	Single package heat pumps, other than those that are through-the-wall or small-duct and high-velocity	CSA C656-14	Seasonal energy efficiency ratio ≥ 14.0 Heating seasonal performance factor (Region V) ≥ 7.0	On or after January 1, 2017
3	Single package heat pumps that are through-the-wall	CSA C656-05	Seasonal energy efficiency ratio ≥ 10.6 Heating seasonal performance factor (Region V) ≥ 6.1	On or after February 3, 1995 and before January 23, 2010

Information

206 For the purpose of subsection 5(1) of the Act, the information set out in column 3 of the table to this section must be collected in accordance with the standard set out in column 2 and provided to the Minister in respect of a single package heat pump described in column 1.

TABLE

Item	Column 1 Energy-using Product	Column 2 Standard	Column 3 Information
1	Single package heat pumps, other than those that are through-the-wall, manufactured on or after February 3, 1995 and before January 1, 2017	CSA C656-05	<p>(a) product classification set out in column II of Table 1 of CSA C656-05;</p> <p>(b) phase of electric current;</p> <p>(c) cooling capacity, in kW (Btu/h);</p> <p>(d) heating capacity, in kW (Btu/h);</p> <p>(e) seasonal energy efficiency ratio;</p> <p>(f) heating seasonal performance factor and the region for the factor;</p> <p>(g) stage type the product has, namely, single-stage or multi-stage; and</p> <p>(h) information that indicates whether the product is through-the-wall.</p>
2	Single package heat pumps, other than those that are through-the-wall, manufactured on or after January 1, 2017	CSA C656-14	<p>(a) product classification set out in column II of Table 1 of CSA C656-14;</p> <p>(b) phase of electric current;</p> <p>(c) cooling capacity, in kW (Btu/h); and</p> <p>(d) heating capacity, in kW (Btu/h);</p> <p>(e) seasonal energy efficiency ratio;</p> <p>(f) heating seasonal performance factor and the region for the factor;</p> <p>(g) stage type the product has, namely, single-stage or multi-</p>

			stage; and (h) information that indicates whether the product is through-the-wall.
3	Single package heat pumps that are through-the-wall and manufactured on or after February 3, 1995	CSA C656-05	(a) product classification set out in Column II of Table 1 of CSA C656-05; (b) phase of electric current; (c) cooling capacity, in kW (Btu/h); and (d) heating capacity, in kW (Btu/h); (e) information that indicates whether the product is through-the-wall; (f) seasonal energy efficiency ratio; (g) heating seasonal performance factor and the region for the factor; and (h) stage type the product has, namely, single-stage or multi-stage.

SUBDIVISION F

Single Package Vertical Heat Pumps

Definition of *single package vertical heat pump*

207 In this Subdivision, *single package vertical heat pump* means a single package commercial heat pump that is encased, that has its major components arranged vertically and that

- (a)** is air-cooled and uses reverse cycle refrigeration as its primary heat source; and
- (b)** is intended for mounting through, or on either side of, an exterior wall.

Energy-using product

208 (1) A single package vertical heat pump is prescribed as an energy-using product.

Limit

(2) However, for the purposes of sections 4, 5 and 209, a single package vertical heat pump is not considered to be an energy-using product unless it is manufactured on or after January 1, 2011.

Energy efficiency standards

209 (1) The energy efficiency standards set out in column 2 of the table to this section apply to single package vertical heat pumps described in column 1 that are manufactured on or after January 1, 2011.

Testing standard

(2) A single package vertical heat pump complies with the energy efficiency standard if it meets that standard when tested in accordance with testing procedures established by CSA C746-06 that are applicable to a *single package vertical heat pump* as defined in section 207.

TABLE

	Column 1	Column 2
Item	Energy-using Product	Energy Efficiency Standard
1	Single package vertical heat pumps that have a cooling capacity of < 19 kW (65,000 Btu/h)	Energy efficiency ratio \geq 9.0 Heating coefficient of performance \geq 3.0
2	Single package vertical heat pumps that have a cooling capacity of \geq 19 kW (65,000 Btu/h) and < 39.5 kW (135,000 Btu/h)	Energy efficiency ratio \geq 8.9 Heating coefficient of performance \geq 3.0
3	Single package vertical heat pumps that have a cooling capacity of \geq 39.5 kW (135,000 Btu/h)	Energy efficiency ratio \geq 8.6 Heating coefficient of performance \geq 2.9

Information

210 For the purpose of subsection 5(1) of the Act, the following information must be collected in accordance with CSA C746-06 and provided to the Minister in respect of a single package vertical heat pump:

- (a) its classification set out in columns II and III of Table 2 of CSA C746-06;
- (b) its cooling capacity, expressed in kilowatts (British thermal units per hour);
- (c) its energy efficiency ratio;
- (d) its heating capacity, expressed in kilowatts (British thermal units per hour); and
- (e) its heating coefficient of performance.

SUBDIVISION G

Split-System Heat Pumps

Definition of *split-system heat pump*

211 In this Subdivision, *split-system heat pump* means a single-phase or three-phase air-to-air heat pump that is a centrally ducted split-system and that has a cooling or heating capacity of less than 19 kW (65,000 Btu/h).

Energy-using product

212 (1) A split-system heat pump is prescribed as an energy-using product.

Limit

(2) However, for the purposes of sections 4, 5 and 213, a split-system heat pump is not considered to be an energy-using product unless it is manufactured on or after December 31, 1998.

Energy efficiency standards

213 (1) The energy efficiency standards set out in column 3 of the table to this section apply to split-system

heat pumps described in column 1 that are manufactured during the periods set out in column 4.

Testing standard

(2) A split-system heat pump complies with the energy efficiency standard if it meets that standard when tested in accordance with testing procedures established by the standard set out in column 2 that are applicable to a *split-system heat pump* as defined in section 211.

TABLE

	Column 1	Column 2	Column 3	Column 4
Item	Energy-using Product	Standard	Energy Efficiency Standard	Period of Manufacture
1	Split-system heat pumps, other than those that are small-duct and high-velocity	CSA C656-05	Seasonal energy efficiency ratio ≥ 13.0 Heating seasonal performance factor (Region V) ≥ 6.7	On or after December 31, 1998 and before January 1, 2017
2	Split-system heat pumps, other than those that are small-duct and high-velocity	CSA C656-14	Seasonal energy efficiency ratio ≥ 14.0 Heating seasonal performance factor (Region V) ≥ 7.1	On or after January 1, 2017
3	Split-system heat pumps that are small-duct and high-velocity	CSA C656-05	Seasonal energy efficiency ratio ≥ 11.0 Heating seasonal performance factor (Region V) ≥ 5.9	On or after December 31, 1998 and before January 1, 2017
4	Split-system heat pumps that are small-duct and high-velocity	CSA C656-14	Seasonal energy efficiency ratio ≥ 12.0 Heating seasonal performance factor (Region V) ≥ 6.3	On or after January 1, 2017

Information

214 For the purpose of subsection 5(1) of the Act, the information set out in column 3 of the table to this section must be collected in accordance with the standard set out in column 2 and provided to the Minister in respect of a split-system heat pump described in column 1.

TABLE

	Column 1	Column 2	Column 3
Item	Energy-using Product	Standard	Information
1	Split-system heat pumps manufactured on or after December 31, 1998 and before January 1, 2017	CSA C656-05	<p>(a) product classification set out in column II of Table 1 of CSA C656-05;</p> <p>(b) phase of electric current;</p> <p>(c) cooling capacity, in kW (Btu/h);</p> <p>(d) heating capacity, in kW (Btu/h);</p> <p>(e) information that indicates whether the product is small-duct and high-velocity;</p> <p>(f) the system the product has, namely, mini-split, multi-split or ducted;</p> <p>(g) seasonal energy efficiency ratio;</p> <p>(h) heating seasonal performance factor and the region for the factor; and</p> <p>(i) the stage type the product has, namely, single-stage or multi-stage.</p>
2	Split-system heat pumps manufactured on or after January 1, 2017	CSA C656-14	<p>(a) product classification set out in column II of Table 1 of CSA C656-14;</p> <p>(b) phase of electric current;</p> <p>(c) cooling capacity, in kW (Btu/h);</p> <p>(d) heating capacity, in kW (Btu/h);</p> <p>(e) information that indicates whether the product is small-duct and high-velocity;</p> <p>(f) the system the product has, namely, mini-split, multi-split or ducted;</p> <p>(g) seasonal energy efficiency ratio;</p> <p>(h) heating seasonal performance factor and the region for the factor; and</p> <p>(i) the stage type the product has, namely, single-stage or multi-stage.</p>

[215 to 256 reserved]

DIVISION 4

Furnaces, Fireplaces and Unit Heaters

SUBDIVISION A

Gas Furnaces

Definitions

257 The following definitions apply in this Subdivision.

CSA 2.3 means the CSA standard ANSI Z21.47-2001/CSA 2.3-2001 entitled *Gas-Fired Central Furnaces*. (CSA 2.3)

CSA P.2 means the CSA standard CAN/CSA-P.2-13 entitled *Testing Method for Measuring the Annual Fuel Utilization Efficiency of Residential Gas-Fired or Oil-Fired Furnaces and Boilers*. (CSA P.2)

gas furnace means an automatic operating gas-fired central forced air furnace that uses propane or natural gas and has an input rate of not more than 117.23 kW (400,000 Btu/h). It does not include a furnace for a mobile home or for a recreational vehicle. (*générateur d'air chaud à gaz*)

replacement unit means a gas furnace that is through-the-wall, marketed for use only in retrofit installations and marked with the phrases "FOR REPLACEMENT USE ONLY" and "UTILISER POUR REMPLACEMENT SEULEMENT". (*unité de remplacement*)

through-the-wall, with respect to a gas furnace, means one that is designed and marketed to be installed in an opening in an exterior wall that is fitted with a weatherized sleeve. (*mural*)

Energy-using product

258 (1) A gas furnace is prescribed as an energy-using product.

Limit

(2) However, for the purposes of sections 4, 5 and 259, a gas furnace is not considered to be an energy-using product unless it is manufactured on or after February 3, 1995.

Energy efficiency standards

259 (1) The energy efficiency standards set out in column 3 of the table to this section apply to gas furnaces described in column 1 that manufactured during the periods set out in column 4.

Testing standard

(2) A gas furnace complies with the energy efficiency standard if it meets that standard when tested in accordance with testing procedures established by the standard set out in column 2 that are applicable to a *gas furnace* as defined in section 257.

TABLE

	Column 1	Column 2	Column 3	Column 4
Item	Energy-using Product	Standard	Energy Efficiency Standard	Period of Manufacture

1	Gas furnaces that have an input rate of ≤ 65.92 kW (225,000 Btu/h) and use single-phase electric current	CSA 2.3	Annual fuel utilization efficiency $\geq 78\%$	On or after February 3, 1995 and before December 31, 2009
2	Gas furnaces that have an input rate of ≤ 65.92 kW (225,000 Btu/h), use single-phase electric current and do not have an integrated cooling component	CSA P.2	Annual fuel utilization efficiency $\geq 90\%$	On or after December 31, 2009
3	Gas furnaces that are outdoor furnaces, have an input rate of ≤ 65.92 kW (225,000 Btu/h), use single-phase electric current and have an integrated cooling component	CSA P.2	Annual fuel utilization efficiency $\geq 78\%$	On or after December 31, 2009
4	Gas furnaces that are through-the-wall, have an input rate of ≤ 65.92 kW (225,000 Btu/h), use single-phase electric current and have an integrated cooling component	CSA P.2	Annual fuel utilization efficiency $\geq 78\%$	On or after December 31, 2009 and before January 1, 2015
5	Gas furnaces that are through-the-wall, other than replacement units, have an input rate of ≤ 65.92 kW (225,000 Btu/h), use single-phase electric current and have an integrated cooling component	CSA P.2	Annual fuel utilization efficiency $\geq 90\%$	On or after January 1, 2015
6	Gas furnaces that are through-the-wall, are replacement units, have an input rate of ≤ 65.92 kW (225,000 Btu/h), use single-phase electric current and have an integrated cooling component	CSA P.2	Annual fuel utilization efficiency $\geq 78\%$	On or after January 1, 2015
7	Gas furnaces that have an input rate of ≤ 65.92 kW (225,000 Btu/h) use three-phase electric current	CSA 2.3	Annual fuel utilization efficiency $\geq 78\%$ or Thermal efficiency $\geq 80\%$	On or after February 3, 1995
8	Gas furnaces that have an input rate of > 65.92 kW (225,000 Btu/h) but ≤ 117.23 kW (400,000 Btu/h)	CSA 2.3	Thermal efficiency $\geq 80\%$	On or after February 3, 1995

Information

260 For the purpose of subsection 5(1) of the Act, the information set out in column 3 of the table to this section must be collected in accordance with the standard set out in column 2 and provided to the Minister in respect of a gas furnace described in column 1.

TABLE

Item	Column 1 Energy-using Product	Column 2 Standard	Column 3 Information
1	Gas furnaces that have an input rate of ≤ 65.92 kW (225,000 Btu/h) that use single-phase electric current and that are manufactured before December 31, 2009	CSA 2.3	<p>(a) heating capacity, in kW (Btu/h); and</p> <p>(b) annual fuel utilization efficiency.</p>
2	Gas furnaces that have an input rate of ≤ 65.92 kW (225,000 Btu/h) that use single-phase electric current and that are manufactured on or after December 31, 2009 and before January 1, 2015	CSA P.2	<p>(a) maximum heat input and output nominal capacities, in kW;</p> <p>(b) annual fuel utilization efficiency;</p> <p>(c) information that indicates whether product has an integrated cooling component;</p> <p>(d) if product has an integrated cooling component, information that indicates whether the product is outdoor or through-the-wall;</p> <p>(e) standby power, in W;</p> <p>(f) power burner's PE and V_{PE}; and</p> <p>(g) type of fuel used.</p>
3	Gas furnaces that have an input rate of ≤ 65.92 kW (225,000 Btu/h) that use single-phase electric current and that are manufactured on or after January 1, 2015	CSA P.2	<p>(a) maximum heat input and output nominal capacities, in kW;</p> <p>(b) annual fuel utilization efficiency;</p> <p>(c) information that indicates whether product has an integrated cooling component;</p> <p>(d) if product has an integrated cooling component, information that indicates whether the product is outdoor or through-the-wall;</p>

			(e) if product is through-the-wall, information that indicates whether the product is a replacement unit; (f) power burner's PE and V_{PE} ; and (g) type of fuel used.
4	Gas furnaces that have an input rate of ≤ 65.92 kW (225,000 Btu/h) that use three-phase electric current	CSA 2.3	(a) heating capacity, in kW (Btu/h); and (b) annual fuel utilization efficiency or thermal efficiency.
5	Gas furnaces that have an input rate of > 65.92 kW (225,000 Btu/h) but ≤ 117.23 kW (400,000 Btu/h)	CSA 2.3	(a) heating capacity, in kW (Btu/h); and (b) thermal efficiency.

SUBDIVISION B

Oil-Fired Furnaces

Definitions

261 The following definitions apply in this Subdivision.

CSA B212 means the CSA standard CSA-B212-93 entitled *Seasonal Energy Utilization Efficiencies of Oil-Fired Furnaces and Boilers*. (CSA B212)

oil-fired furnace means a warm-air furnace, other than a furnace for a mobile home or for a recreational vehicle, that has an input rate of not more than 65.92 kW (225,000 Btu/h) and that is either

(a) exclusively oil-fired; or

(b) capable of being fired, at the choice of the user, by either oil or another fuel. (*générateur d'air chaud à mazout*)

Energy-using product

262 (1) An oil-fired furnace is prescribed as an energy-using product.

Limit

(2) However, for the purposes of sections 4, 5 and 263, an oil-fired furnace is not considered to be an energy-using product unless it is manufactured on or after December 31, 1998.

Energy efficiency standard

263 (1) The energy efficiency standard that applies to an oil-fired furnace is that its seasonal energy utilization efficiency must be greater than or equal to 78%.

Testing standard

(2) An oil-fired furnace complies with the energy efficiency standard if it meets that standard when tested in accordance with testing procedures established by CSA B212 that are applicable to an *oil-fired furnace* as defined in section 261.

Information

264 For the purpose of subsection 5(1) of the Act, the following information must be collected in accordance with CSA B212 and provided to the Minister in respect of an oil-fired furnace:

- (a) its input rate, expressed in kilowatts (British thermal units per hour); and
- (b) its seasonal energy utilization efficiency.

SUBDIVISION C

Gas Fireplaces

Definitions

265 The following definitions apply in this Subdivision.

CSA P.4.1 means the CSA standard CSA P.4.1-02 entitled *Testing Method for Measuring Annual Fireplace Efficiency*. (CSA P.4.1)

CSA P.4.1-15 means the CSA standard CSA P.4.1-15 entitled *Testing Method for Measuring Annual Fireplace Efficiency*. (CSA P.4.1-15)

gas fireplace means a vented gas fireplace or a vented gas fireplace heater, as described in CSA P.4.1-15, that is fuelled by natural gas or propane. (*foyer à gaz*)

Energy-using product

266 (1) A gas fireplace is prescribed as an energy-using product.

Limit

(2) However, for the purposes of sections 4 to 7, a gas fireplace is not considered to be an energy-using product unless it is manufactured on or after June 1, 2003.

Information

267 (1) For the purpose of subsection 5(1) of the Act, the following information must be provided to the Minister in respect of a gas fireplace:

- (a) the type of fuel it uses;
- (b) its maximum and minimum input rates, expressed in kilowatts (British thermal units per hour);
- (c) the fireplace efficiency;
- (d) information that indicates whether it is freestanding, zero-clearance or an insert;
- (e) the type of ignition system it has, namely, standing pilot, intermittent ignition device, on-demand pilot or remotely operated pilot; and
- (f) the venting configuration the product has, namely, natural venting, direct venting or powered venting.

Standard

(2) The information must be collected in accordance with

- (a) CSA P.4.1, if the product was manufactured on or after June 1, 2003 and before January 1, 2017;
or
- (b) CSA P.4.1-15, if the product is manufactured on or after January 1, 2017.

SUBDIVISION D

Gas-Fired Unit Heaters

Definitions

268 The following definitions apply in this Subdivision.

CSA P.11 means the CSA standard CAN/CSA-P.11-07 entitled *Testing Method for Measuring Efficiency and*

gas-fired unit heater means a self-contained, automatically controlled, vented, gas-burning appliance that distributes warmed air without the use of ducts and that has an input rate of not more than 2 931 kW (10,000,000 Btu/h). (*aérotherme à gaz*)

Energy-using product

269 (1) A gas-fired unit heater is prescribed as an energy-using product.

Limit

(2) However, for the purposes of sections 4, 5 and 270, a gas-fired unit-heater is not considered to be an energy-using product unless it is manufactured on or after August 8, 2008.

Energy efficiency standards

270 (1) The following energy efficiency standards apply to a gas-fired unit heater:

- (a)** its thermal efficiency must be at least 80% at the maximum heat input nominal capacity; and
- (b)** it must be equipped with an intermittent ignition device and
 - (i)** a power-vented system,
 - (ii)** an automatic vent damper, or
 - (iii)** an automatic flue damper.

Testing standard

(2) A gas-fired unit heater complies with the energy efficiency standard if it meets that standard when tested in accordance with testing procedures established by CSA P.11 that are applicable to a *gas-fired unit heater* as defined in section 268.

Information

271 For the purpose of subsection 5(1) of the Act, the following information must be collected in accordance with CSA P.11 and provided to the Minister in respect of a gas-fired unit heater:

- (a)** the type of fuel it uses;
- (b)** the type of ignition system it has;
- (c)** the venting configuration it has, namely, a power-vented system, an automatic vent damper or an automatic flue damper;
- (d)** its maximum heat input and output nominal capacities, expressed in kilowatts;
- (e)** its thermal efficiency when at the maximum heat input nominal capacity;
- (f)** its electricity consumption, expressed in kilowatt hours, when at the maximum nominal heat input capacity; and
- (g)** if it is a modulating or staged control gas-fired unit heater,
 - (i)** its reduced heat input and output nominal capacities, expressed in kilowatts, and
 - (ii)** its electricity consumption, expressed in kilowatt hours, when at reduced heat input nominal capacity.

[272 to 313 reserved]

DIVISION 5

Boilers

Interpretation

Definitions

314 The following definitions apply in this Division.

ASHRAE 103 means the ANSI/ASHRAE standard 103-2007 entitled *Method of Testing for Annual Fuel Utilization Efficiency of Residential Central Furnaces and Boilers. (ASHRAE 103)*

automatic water temperature adjustment device means a device that

(a) adjusts the temperature of the water supplied by a boiler to ensure that an incremental change in inferred heat load produces a corresponding incremental change in the temperature of the water supplied or, if the boiler fires at a single input rate, automatically allows the burner or heating element to fire only when the device has determined that the inferred heat load cannot be met by the residual heat of the water in the system; and

(b) when there is no inferred heat load, limits the water temperature in the boiler to not more than 60°C. (*dispositif automatique de réglage de la température de l'eau*)

SUBDIVISION A

Gas Boilers

Definitions

315 The following definitions apply in this Subdivision.

CGA P.2 means the CGA standard CGA P.2-1991 entitled *Testing Method for Measuring Annual Fuel Utilization Efficiencies of Residential Furnaces and Boilers. (CGA P.2)*

CSA P.2 means the CSA standard CAN/CSA-P.2-07 entitled *Testing Method for Measuring the Annual Fuel Utilization Efficiency of Residential Gas-Fired Furnaces and Boilers. (CSA P.2)*

gas boiler means a boiler that uses propane or natural gas, is intended for application in a low pressure steam, or hot water, central heating system and has an input rate of less than 88 kW (300,000 Btu/h). (*chaudière à gaz*)

Energy-using product

316 (1) A gas boiler is prescribed as an energy-using product.

Limits

(2) However, a gas boiler is not considered to be an energy-using product

(a) for the purpose of section 4, unless it is manufactured on or after June 30, 1999; and

(b) for the purposes of sections 5 and 317, unless it is manufactured on or after December 31, 1998.

Energy efficiency standards

317 (1) The energy efficiency standards set out in column 3 of the table to this section apply to gas boilers described in column 1 that are manufactured during the periods set out in column 4.

Testing standard

(2) A gas boiler complies with the energy efficiency standard if it meets that standard when tested in accordance with testing procedures established by the standard set out in column 2 that are applicable to a *gas boiler* as defined in section 315.

TABLE

	Column 1	Column 2	Column 3	Column 4
Item	Energy-using Product	Standard	Energy Efficiency Standard	Period of Manufacture
1	Gas boilers that are intended for low	CGA P.2	Annual fuel utilization efficiency \geq 75%	On or after December 31,

	pressure steam systems			1998 and before September 1, 2010
2	Gas boilers that are intended for low pressure steam systems	CSA P.2, for annual fuel utilization efficiency	Annual fuel utilization efficiency \geq 80% No continuously burning pilot light	On or after September 1, 2010
3	Gas boilers that are intended for hot water systems	CGA P.2	Annual fuel utilization efficiency \geq 80%	On or after December 31, 1998 and before September 1, 2010
4	Gas boilers that are intended for hot water systems	CSA P.2, for annual fuel utilization efficiency	Annual fuel utilization efficiency \geq 82% No continuously burning pilot light	On or after September 1, 2010 and before September 1, 2012
5	Gas boilers that are intended for hot water systems and have tankless domestic water heating coils	CSA P.2, for annual fuel utilization efficiency	Annual fuel utilization efficiency \geq 82% No continuously burning pilot light	On or after September 1, 2012
6	Gas boilers that are intended for hot water systems and do not have tankless domestic water heating coils	CSA P.2, for annual fuel utilization efficiency	Annual fuel utilization efficiency \geq 82% No continuously burning pilot light Equipped with automatic water temperature adjustment device and not operable without the device	On or after September 1, 2012

Information

318 For the purpose of subsection 5(1) of the Act, the information set out in column 3 of the table to this section must be collected in accordance with the standard set out in column 2 and provided to the Minister in respect of a gas boiler described in column 1.

TABLE

	Column 1	Column 2	Column 3
Item	Energy-using Product	Standard	Information
1	Gas boilers manufactured on or after December 31,	CGA P.2	(a) type of fuel used; (b) type of central heating

1998 and before September 1, 2010	system for which product is intended; (c) input rate, in kW (Btu/h); and (d) annual fuel utilization efficiency.
2 Gas boilers manufactured on or after September 1, 2010	CSA P.2 for information set out in paragraphs (a) to (g) (a) type of fuel used; (b) type of central heating system for which product is intended; (c) maximum heat input and output nominal capacities, in kW; (d) power burner's PE; (e) water pump's BE; (f) average annual electrical energy consumption (E_{AE}), in kWh; (g) annual fuel utilization efficiency; and (h) if the product is manufactured on or after September 1, 2012, (i) information that indicates whether product has tankless domestic water heating coils, and (ii) type of automatic water temperature adjustment device it has, if any.

SUBDIVISION B

Oil-Fired Boilers

Definitions

319 The following definitions apply in this Subdivision.

CSA B212 means the CSA standard CSA-B212-93 entitled *Seasonal Energy Utilization Efficiencies of Oil-Fired Furnaces and Boilers*. (CSA B212)

oil-fired boiler means a boiler that is intended for application in a low pressure steam, or hot water, central heating system, has an input rate of less than 88 kW (300,000 Btu/h) and is

- (a)** exclusively oil-fired; or
- (b)** capable of being fired, at the choice of the user, by either oil or another fuel. (*chaudière à mazout*)

Energy-using product

320 (1) An oil-fired boiler is prescribed as an energy-using product.

Limits

(2) However, an oil-fired boiler is not considered to be an energy-using product

(a) for the purpose of section 4, unless it is manufactured on or after June 30, 1999; and

(b) for the purposes of sections 5 and 321, unless it is manufactured on or after December 31, 1998.

Energy efficiency standards

321 (1) The energy efficiency standards set out in column 3 of the table to this section apply to oil-fired boilers described in column 1 that are manufactured during the periods set out in column 4.

Testing standard

(2) An oil-fired boiler complies with the energy efficiency standard if it meets that standard when tested in accordance with testing procedures established by the standard set out in column 2 that are applicable to an *oil-fired boiler* as defined in section 319.

TABLE

	Column 1	Column 2	Column 3	Column 4
Item	Energy-using Product	Standard	Energy Efficiency Standard	Period of Manufacture
1	Oil-fired boilers	CSA B212	Seasonal energy utilization efficiency $\geq 80\%$	On or after December 31, 1998 and before September 1, 2010
2	Oil-fired boilers that are intended for low pressure steam systems	ASHRAE 103	Annual fuel utilization efficiency $\geq 82\%$	On or after September 1, 2010
3	Oil-fired boilers that are intended for hot water systems	ASHRAE 103	Annual fuel utilization efficiency $\geq 84\%$	On or after September 1, 2010 and before September 1, 2012
4	Oil-fired boilers that are intended for hot water systems and have tankless domestic water heating coils	ASHRAE 103	Annual fuel utilization efficiency $\geq 84\%$	On or after September 1, 2012
5	Oil-fired boilers that are intended for hot water systems and do not have tankless domestic water heating coils	ASHRAE 103 for annual fuel utilization efficiency	Annual fuel utilization efficiency $\geq 84\%$ Equipped with automatic water temperature adjustment device and not operable without the device	On or after September 1, 2012

Information

322 For the purpose of subsection 5(1) of the Act, the information set out in column 3 of the table to this section must be collected in accordance with the standard set out in column 2 and provided to the Minister in respect of an oil-fired boiler described in column 1.

TABLE

Item	Column 1 Energy-using Product	Column 2 Standard	Column 3 Information
1	Oil-fired boilers manufactured on or after December 31, 1998 and before September 1, 2010	CSA B212	<p>(a) input rate, in kW (Btu/h); and</p> <p>(b) seasonal energy utilization efficiency.</p>
2	Oil-fired boilers manufactured on or after September 1, 2010	ASHRAE 103 for information set out in paragraphs (a) to (f)	<p>(a) type of central heating system for which product is intended;</p> <p>(b) maximum heat input and output nominal capacities, in kW (Btu/h);</p> <p>(c) power burner's PE;</p> <p>(d) water pump's BE;</p> <p>(e) average annual electrical energy consumption (E_{AE}), in kWh;</p> <p>(f) annual fuel utilization efficiency; and</p> <p>(g) if product is manufactured on or after September 1, 2012,</p> <p>(i) information that indicates whether product has tankless domestic water heating coils, and</p> <p>(ii) type of automatic water temperature adjustment device product has, if any.</p>

SUBDIVISION C

Electric Boilers

Definition of *electric boiler*

323 In this Subdivision, *electric boiler* means a boiler that uses electric energy as a source of heat, is intended for application in a hot water central heating system, has an input rate of less than 88 kW (300,000 Btu/h) and is not equipped with tankless domestic water heating coils.

Energy-using product

324 (1) An electric boiler is prescribed as an energy-using product.

Limit

(2) However, for the purposes of sections 4, 5 and 325, an electric boiler is not considered to be an

energy-using product unless it is manufactured on or after September 1, 2012.

Energy efficiency standard

325 The energy efficiency standard that applies to an electric boiler is that it must be equipped with an automatic water temperature adjustment device without which the boiler is not operable.

Information

326 For the purpose of subsection 5(1) of the Act, the following information must be provided to the Minister in respect of an electric boiler:

- (a) its input rate, expressed in kilowatts, collected in accordance with ASHRAE 103; and
- (b) the type of automatic water temperature adjustment device that it has.

[327 to 368 reserved]

DIVISION 6

Water Heaters

Interpretation

Definition of V_r

369 In this Division, V_r means the nominal volume, expressed in litres, of a water heater's storage tank.

SUBDIVISION A

Electric Water Heaters

Definitions

370 The following definitions apply in this Subdivision.

bottom inlet means a cold water inlet, other than one with a dip tube, that enters near the bottom of the water heater's storage tank. (*entrée inférieure*)

CSA C191-04 means the CSA standard CAN/CSA-C191-04 entitled *Performance of Electric Storage Tank Water Heaters for Domestic Hot Water Service*. (*CSA C191-04*)

electric water heater means a stationary electric storage tank water heater that is intended for use on a pressurized water system and has a V_r of at least 50 L (11 imperial gallons) but not more than 454 L (100 imperial gallons). (*chauffe-eau électrique*)

Energy-using product

371 (1) An electric water heater is prescribed as an energy-using product.

Limit

(2) However, for the purposes of sections 4, 5 and 372, an electric water heater is not considered to be an energy-using product unless it is manufactured on or after February 3, 1995.

Energy efficiency standards

372 (1) The energy efficiency standards set out in column 2 of the table to this section apply to electric water heaters described in column 1.

Testing standard

(2) An electric water heater complies with the energy efficiency standard if it meets that standard when tested in accordance with testing procedures established by CSA C191-04 that are applicable to an *electric water heater* as defined in section 370.

TABLE

Column 1		Column 2
Item	Energy-using Product	Energy Efficiency Standard
1	Electric water heaters that have a bottom inlet and a V_r of ≥ 50 L but ≤ 270 L	Standby loss, in W, $\leq 40 + 0.2 V_r$
2	Electric water heaters that have a bottom inlet and a V_r of > 270 L but ≤ 454 L	Standby loss, in W, $\leq 0.472 V_r - 33.5$
3	Electric water heaters that have a top inlet and a V_r of ≥ 50 L but ≤ 270 L	Standby loss, in W, $\leq 35 + 0.2 V_r$
4	Electric water heaters that have a top inlet and a V_r of > 270 L but ≤ 454 L	Standby loss, in W, $\leq 0.472 V_r - 38.5$

Information

373 For the purpose of subsection 5(1) of the Act, the following information must be collected in accordance with CSA C191-04 and provided to the Minister in respect of an electric water heater:

- (a) its V_r ;
- (b) the nominal power input of its upper and lower elements, expressed in watts;
- (c) its standby loss, expressed in watts; and
- (d) the cold water inlet configuration, namely, a top inlet or bottom inlet.

SUBDIVISION B

Gas-Fired Storage Water Heaters

Definitions

374 The following definitions apply in this Subdivision.

CSA P.3-04 means the CSA standard CAN/CSA-P.3-04 entitled *Testing Method for Measuring Energy Consumption and Determining Efficiencies of Gas-Fired Storage Water Heaters*. (CSA P.3-04)

gas-fired storage water heater means a stationary gas-heated water container that

- (a) uses propane or natural gas for fuel;
- (b) has an input of not more than 21.97 kW (75,000 Btu/h); and
- (c) has a V_r of at least 76 L (20 US gallons) but not more than 380 L (100 US gallons). (*chauffe-eau à réservoir alimenté au gaz*)

Energy-using product

375 (1) A gas-fired storage water heater is prescribed as an energy-using product.

Limit

(2) However, for the purposes of sections 4, 5 and 376, a gas-fired storage water heater is not considered to be an energy-using product unless it is manufactured on or after February 3, 1995.

Energy efficiency standards

376 (1) The energy efficiency standards set out in column 1 of the table to this section apply to gas-fired storage water heaters that are manufactured during the periods set out in column 2.

Testing standard

(2) A gas-fired storage water heater complies with the energy efficiency standard if it meets that standard when tested in accordance with testing procedures established by CSA P.3-04 that are applicable to a *gas-fired storage water heater* as defined in section 374.

TABLE

Item	Column 1 Energy Efficiency Standard	Column 2 Period of Manufacture
1	Energy factor of $\geq 0.67 - 0.0005 V_r$	On or after February 3, 1995 and before April 16, 2017
2	Energy factor of $\geq 0.675 - 0.00039 V_r$	On or after April 16, 2017

Information

377 For the purpose of subsection 5(1) of the Act, the following information must be collected in accordance with CSA P.3-04 and provided to the Minister in respect of a gas-fired storage water heater:

- (a) its V_r ;
- (b) its input rate, expressed in kilowatts;
- (c) its recovery efficiency;
- (d) its energy factor;
- (e) the fuel it uses;
- (f) its annual energy consumption, expressed in kilojoules; and
- (g) its first hour rating, expressed in litres.

SUBDIVISION C

Oil-Fired Water Heaters

Definitions

378 The following definitions apply in this Subdivision.

CSA B211-00 means the CSA standard CAN/CSA-B211-00 entitled *Energy Efficiency of Oil-Fired Storage Tank Water Heaters*. (CSA B211-00)

oil-fired water heater means a water heater that uses oil for fuel, and has an input rate of not more than 30.5 kW (105,000 Btu/h) and a V_r of at least 76 L (20 US gallons) but not more than 190 L (50 US gallons). (*chauffe-eau à mazout*)

Energy-using product

379 (1) An oil-fired water heater is prescribed as an energy-using product.

Limit

(2) However, for the purposes of sections 4, 5 and 380, an oil-fired water heater is not considered to be an

energy-using product unless it is manufactured on or after February 3, 1995.

Energy efficiency standards

380 (1) The energy efficiency standards set out in column 1 of the table to this section apply to oil-fired water heaters that are manufactured during the periods set out in column 2.

Testing standard

(2) An oil-fired water heater complies with the energy efficiency standard if it meets that standard when tested in accordance with testing procedures established by CSA B211-00 that are applicable to an *oil-fired water heater* as defined in section 378.

TABLE

	Column 1	Column 2
Item	Energy Efficiency Standard	Period of Manufacture
1	Energy factor of $\geq 0.59 - 0.0005 V_r$	On or after February 3, 1995 and before April 16, 2017
2	Energy factor of $\geq 0.68 - 0.0005 V_r$	On or after April 16, 2017

Information

381 For the purpose of subsection 5(1) of the Act, the following information must be collected in accordance with CSA B211-00 and provided to the Minister in respect of an oil-fired water heater:

- (a) its V_r ;
- (b) its input rate, expressed in kilowatts;
- (c) its recovery efficiency;
- (d) its energy factor; and
- (e) its first hour rating, expressed in litres.

[382 to 423 reserved]

DIVISION 7

Lamps and Lamp Ballasts

Interpretation

Definitions

424 The following definitions apply in this Division.

ANSI C78.20 means the ANSI standard ANSI C78.20-2003 entitled *American National Standard for Electric Lamps — A, G, PS, and Similar Shapes with E26 Medium Screw Bases*. (ANSI C78.20)

ANSI C79.1 means the ANSI standard ANSI C79.1-2002 entitled *For Electric Lamps — Nomenclature for Glass Bulbs Intended for Use with Electric Lamps*. (ANSI C79.1)

ANSI C81.61 means the ANSI standard ANSI-ANSLG C81.61-2009 entitled *American National Standard for Electrical Lamp Bases — Specifications for Bases (Caps) for Electric Lamps*. (ANSI C81.61)

appliance lamp means a lamp that is designed to operate in ambient temperatures of up to 315°C, has a maximum nominal power of 40 W and is marketed as an appliance lamp. (*lampe pour appareils*)

électroménagers)

CIE 13.3 means the CIE standard CIE 13.3-1995 entitled *Method of Measuring and Specifying Colour Rendering Properties of Light Sources*. (CIE 13.3)

CIE 15 means the CIE standard CIE 15: 2004 entitled *Colorimetry*. (CIE 15)

coloured lamp means a lamp that is marketed as a coloured lamp and has

- (a) a colour rendering index of less than 50, as determined in accordance with CIE 13.3; or
- (b) a correlated colour temperature of less than 2 500 K or more than 4 600 K. (*lampe colorée*)

IES Handbook means the IES publication entitled *Lighting Handbook*, 9th edition. (*Manuel IES*)

IES LM16 means the IES standard IES LM-16-1993 entitled *Practical Guide to Colorimetry of Light Sources*. (IES LM16)

IES LM45 means the IES standard IES LM-45-09 entitled *Approved Method for The Electrical and Photometric Measurement of General Service Incandescent Filament Lamps*. (IES LM45)

IES LM49 means the IES standard IES LM-49-12 entitled *Approved Method for Life Testing of Incandescent Filament Lamps*. (IES LM49)

IES LM65 means the IES standard IES LM-65-10 entitled *Approved Method for Life Testing of Compact Fluorescent Lamps*. (IES LM65)

incandescent reflector lamp means a lamp in which light is

- (a) produced by a filament that is heated to incandescence by an electric current; and
- (b) directed by an inner reflective coating on the outer bulb. (*lampe-réfecteur à incandescence*)

infrared lamp means a lamp that emits more than 90% of its radiation in the 0.7 μm to 10 μm range of the electromagnetic spectrum. (*lampe infrarouge*)

lamp efficacy means the number of lumens per watt determined by

- (a) dividing a lamp's luminous flux by its power, measured under equilibrium conditions at the time of determining the luminous flux; and
- (b) in the case of a general service incandescent reflector lamp, rounding the number calculated under paragraph (a) to the nearest half number. (*efficacité lumineuse*)

modified spectrum lamp means a lamp, other than a coloured lamp, that

- (a) is marketed as a modified spectrum lamp; and
- (b) when operated at its nominal voltage and nominal power, has a colour point that, on the 1931 chromaticity diagram described in CIE 15, lies below the black-body locus and is at least 4 MacAdam steps, as described in IES LM16, distant from the colour point of a clear lamp with the same filament and bulb shape and that operates at the same nominal voltage and nominal power. (*lampe à spectre modifié*)

plant lamp means a lamp that contains a filter or coating to suppress light with wavelengths of less than 0.58 μm and that is marketed as a plant lamp. (*lampe pour horticulture*)

rough service lamp means a lamp that is marketed as a rough service lamp and has any of the following filament constructions, as illustrated in figure 6.12 of the IES Handbook:

- (a) a C-7A or C-11 filament construction, with at least five supports exclusive of lead wires;
- (b) a C-17 filament construction, with eight supports exclusive of lead wires; or
- (c) a C-22 filament construction, with 16 supports exclusive of lead wires. (*lampe à construction renforcée*)

shatter-resistant lamp means a lamp that has an external silicon, polytetrafluoroethylene or similar coating applied to it for the purpose of resisting breakage and preventing glass from reaching the operating environment in the event of breakage and that is marketed as a shatter-resistant lamp. (*lampe résistante à*

l'éclatement)

silver bowl lamp means a lamp that is marketed as a silver bowl lamp and that has a reflective coating that is applied directly to a part of the bulb surface so that light is reflected toward the lamp base. (*lampe à calotte argentée*)

submersible lamp means a lamp that meets the requirements set out in the CSA standard C22.2 No. 89-1976, entitled *Swimming-Pool Luminaires, Submersible Luminaires and Accessories*. (*lampe submersible*)

vibration service lamp means a lamp that

- (a) is marketed as a vibration service lamp;
- (b) has a maximum nominal power of 60 W; and
- (c) has a C-5, C-7A or C-9 filament construction — as illustrated in figure 6.12 of the IES Handbook — or a similar construction, with less than five supports. (*lampe anti-vibrations*)

Labelling

Label required

425 Every CFL, general service lamp, modified spectrum incandescent lamp and general service incandescent reflector lamp that, for the purpose of sale or lease, is shipped from one province to another or imported into Canada must be labelled in accordance with sections 426 to 429.

Information on principal display panel

426 (1) The principal display panel of the product's package must display the following information in the following order:

- (a) except in the case of a BR or ER lamp, the words "Light Output" and "Flux lumineux", followed by the numerical value of the product's luminous flux and the word "lumens";
- (b) the words "Energy Used" and "Consommation d'énergie", followed by the numerical value of the product's nominal power and the word "watts"; and
- (c) the words "Life" and "Durée de vie", followed by the numerical value of the product's life and the words "hours" and "heures", respectively.

Font and size

(2) The words "Light Output", "Flux lumineux", "Energy Used", "Consommation d'énergie", "Life" and "Durée de vie" must be in the same font and be equal in size.

Font and size

(3) The words "lumens", "watts", "hours" and "heures" must be in the same font and be equal in size, but they must not be more than 50% of the size of the words referred to in subsection (2).

Font and size

(4) The numerical values indicating the product's luminous flux, nominal power and life must be in the same font and be equal in size.

Three-way lamps

(5) If the product is a three-way lamp, the information required by paragraphs (1)(a) and (b) must be displayed for each level of the lamp's operation.

Value of CFL life

427 Despite paragraph 426(1)(c), the value that is displayed on the principal display panel for the life of a CFL may be

- (a) if the life testing of the CFL is completed, a value that is less than its life; or
- (b) if the life testing of the CFL is not completed, its design life, if a laboratory accredited in respect of the energy performance of lighting products by either the Standards Council of Canada or the

National Voluntary Laboratory Accreditation Program, an A2LA certified laboratory or an ISO 9000 certified laboratory or manufacturing facility has, in accordance with IES LM65, verified 40% of the design life and at that point in the testing not more than one unit in the test sample has failed.

Design voltage other than 120 V

428 (1) If the design voltage of the product is other than 120 V, the information required by section 426 may correspond to

- (a) a voltage of 120 V, followed by the words "at 120 volts" and "à 120 volts"; or
- (b) the design voltage, followed by the words, "at [*design voltage*] volts" and "à [*tension spécifique*]".

Additional information

(2) If the information corresponds to the design voltage,

(a) the following statement must be displayed on the principal display panel:

"This product is designed for [*design voltage*] volts. When used on the normal line voltage of 120 volts, the light output and energy efficiency are noticeably reduced. See [*appropriate panel*] panel for 120-volt rating."

« Ce produit a été conçu en fonction d'une tension de [*tension spécifique*] volts. S'il est employé à la tension normale de 120 volts, son flux lumineux et sa consommation d'énergie s'en trouveront considérablement réduits. Voir le panneau [*panneau en cause*] pour les renseignements correspondant à une tension de 120 volts. »;

(b) the information required by section 426 for the product corresponding to a voltage of 120 V, followed by the words "at 120 volts" and "à 120 volts", must be displayed on a panel of the product's package other than the principal display panel; and

(c) the design voltage must be displayed on every panel that displays the information required by section 426, other than the panel on which the information required by paragraph (b) is displayed.

Multiple lamps in common package

429 If more than one type of lamp is included in a common package and their characteristics are not uniform, the principal display panel of the common package must display the following information for each type of lamp:

- (a) its design voltage; and
- (b) the information required by section 426, which must be in the size and font specified in that section.

SUBDIVISION A

Compact Fluorescent Lamps

Definitions

430 The following definitions apply in this Subdivision.

CFL means an integrally ballasted compact fluorescent lamp that has

- (a) a medium screw base; and
- (b) a nominal voltage of at least 100 V but not more than 130 V or a nominal voltage range that lies at least partially between those voltages. (*LFC*)

CSA C861 means the CSA standard CAN/CSA-C861-10 entitled *Performance of Self-ballasted Compact Fluorescent Lamps and Ballasted Adapters*. (*CSA C861*)

Energy-using product

431 (1) A CFL is prescribed as an energy-using product.

Limit

(2) However, for the purposes of sections 4, 5 and 432, a CFL is not considered to be an energy-using product unless it is manufactured on or after June 1, 2009.

Information

432 (1) For the purpose of subsection 5(1) of the Act, the following information must be provided to the Minister in respect of a CFL:

- (a) its nominal voltage;
- (b) its nominal power, expressed in watts, or if it is a three-way lamp, its nominal power, expressed in watts, at each operating level;
- (c) its luminous flux, or if it is a three-way lamp, its luminous flux at each operating level;
- (d) the lamp efficacy;
- (e) its life, expressed in hours; and
- (f) its correlated colour temperature.

Standard

(2) The information must be collected as follows:

- (a) the information referred to in paragraphs (1)(a) to (d) and (f) must be collected in accordance with CSA C861; and
- (b) the information referred to in paragraph (1)(e) must, using a sample of 10 CFLs, be collected in accordance with IES LM65, except that if the manufacturer has not specified an operating orientation for the lamp or has specified more than one orientation, five of the CFLs must be tested in the base-up orientation and the other five must be tested in the base-down orientation.

SUBDIVISION B

General Service Lamps

Definition of *general service lamp*

433 (1) In this Subdivision, *general service lamp* means an electrical device that provides functional illumination and has a luminous flux of at least 310 lm but not more than 2 600 lm, a nominal voltage of at least 110 V but not more than 130 V or a nominal voltage range that lies at least partially between those voltages and a screw base. It does not include any of the following:

- (a) an appliance lamp;
- (b) a CFL;
- (c) a coloured lamp;
- (d) an infrared lamp;
- (e) a lamp that has a G-shape as specified in ANSI C78.20 and ANSI C79.1 and a diameter of 12.7 cm or more;
- (f) a lamp that has a T-shape as specified in ANSI C78.20 and ANSI C79.1 and a maximum nominal power of 40 W or a length of more than 25.4 cm or both;
- (g) a left-hand thread lamp;
- (h) a plant lamp;
- (i) an incandescent reflector lamp;
- (j) a vacuum type or gas-filled lamp that has a sufficiently low bulb temperature to permit exposed outdoor use on high-speed flashing circuits and that is marketed as a sign service lamp;
- (k) a silver bowl lamp;
- (l) a traffic signal module, a pedestrian module or a street light;
- (m) a submersible lamp;
- (n) a lamp that has a screw base size of E5, E10, E11, E12, E17, E26/50×39, E26/53×39, E29/28, E29/53×39, E39, E39d, EP39 or EX39 as specified in ANSI C81.61;
- (o) a lamp that has a B, BA, CA, F, G16-½, G25, G30, S or M-14 shape or other similar shape as specified in ANSI C78.20 and ANSI C79.1 and a maximum nominal power of 40 W;

(p) a lamp that emits visible light produced by a current passing through a p-n junction solid state device; or

(q) a modified spectrum lamp.

Luminous flux

(2) For the purposes of these Regulations, the luminous flux of a general service lamp must be calculated in accordance with IES LM45, except that the lamp must be tested at 120 V regardless of its nominal voltage.

Energy-using product

434 (1) A general service lamp is prescribed as an energy-using product.

Limits

(2) However, a general service lamp is not considered to be an energy-using product

(a) for the purposes of sections 4 and 435,

(i) if it is a rough service lamp, a vibration service lamp, a shatter-resistant lamp or a lamp with an E26d screw base,

(ii) if it has a luminous flux of less than 1 050 lm and was manufactured before December 31, 2014, or

(iii) if it has a luminous flux of at least 1 050 lm and was manufactured before January 1, 2014; and

(b) for the purposes of sections 5 and 425 to 429, if it was manufactured before September 1, 2008.

Energy efficiency standards

435 (1) The energy efficiency standards set out in column 2 of the table to this section apply to general service lamps described in column 1 that are manufactured during the periods set out in column 3.

Testing standard

(2) A general service lamp complies with the energy efficiency standard if it meets that standard when tested in accordance with testing procedures that are applicable to a *general service lamp* as defined in section 433 and set out in the following standards:

(a) IES LM45 for the nominal power;

(b) IES LM49 for the life of the product; and

(c) CIE 13.3 for the colour rendering index.

Adjusted testing procedure

(3) The testing referred to in subsection (2) must, despite any provision to the contrary in the identified standard, be conducted with the lamp operating at 120 V regardless of its nominal voltage.

TABLE

	Column 1	Column 2	Column 3
Item	Energy-using Product	Energy Efficiency Standard	Period of Manufacture
1	General service lamps that have a luminous flux of < 750 lm	Nominal power \leq 29 W Life \geq 1 000 hours Colour rendering	On or after December 31, 2014

		index \geq 80	
2	General service lamps that have a luminous flux of \geq 750 lm and $<$ 1 050 lm	Nominal power \leq 43 W Life \geq 1 000 hours Colour rendering index \geq 80	On or after December 31, 2014
3	General service lamps that have a luminous flux of \geq 1 050 lm and $<$ 1 490 lm	Nominal power \leq 53 W Life \geq 1 000 hours Colour rendering index \geq 80	On or after January 1, 2014
4	General service lamps that have a luminous flux of \geq 1 490 lm	Nominal power \leq 72 W Life \geq 1 000 hours Colour rendering index \geq 80	On or after January 1, 2014

Information

436 For the purpose of subsection 5(1) of the Act, the following information must be provided to the Minister in respect of a general service lamp:

- (a) a description of the lamp, collected in accordance with ANSI C79.1;
- (b) its colour rendering index, collected in accordance with CIE 13.3;
- (c) its correlated colour temperature, collected in accordance with CIE 15;
- (d) the following information collected in accordance with IES LM45, with the testing procedure adjusted in accordance with subsection 435(3), namely,
 - (i) its nominal power, expressed in watts, or if it is a three-way lamp, its nominal power, expressed in watts, at each operating level, and
 - (ii) its luminous flux, expressed in lumens, or if it is a three-way lamp, its luminous flux, expressed in lumens, at each operating level; and
- (e) its life, expressed in hours, collected in accordance with IES LM49, with the testing procedure adjusted in accordance with subsection 435(3).

SUBDIVISION C

Modified Spectrum Incandescent Lamps

Definition of *modified spectrum incandescent lamp*

437 (1) In this Subdivision, *modified spectrum incandescent lamp* means a modified spectrum lamp that has a luminous flux of at least 232 lm but not more than 1 950 lm, a nominal voltage of at least 110 V but not more than 130 V or a nominal voltage range that lies at least partially between those voltages, and a screw base. It does not include any of the following:

- (a) an appliance lamp;
- (b) a CFL;
- (c) an infrared lamp;
- (d) a lamp that has a G-shape as specified in ANSI C78.20 and ANSI C79.1 and a diameter of 12.7 cm or more;
- (e) a lamp that has a T-shape as specified in ANSI C78.20 and ANSI C79.1 and a maximum nominal power of 40 W or a length of more than 25.4 cm or both;
- (f) a lamp that uses solid state technology, namely, a lamp with a light source that comes from light-emitting diodes;
- (g) a left-hand thread lamp;
- (h) a plant lamp;
- (i) an incandescent reflector lamp that has a shape specified in ANSI C79.1;
- (j) a vacuum type or gas-filled lamp that has a sufficiently low bulb temperature to permit exposed outdoor use on high-speed flashing circuits and that is marketed as a sign service lamp;
- (k) a silver bowl lamp;
- (l) a traffic signal module, a pedestrian module or a street light;
- (m) a submersible lamp;
- (n) a lamp that has a screw base size of E5, E10, E11, E12, E17, E26/50×39, E26/53×39, E29/28, E29/53×39, E39, E39d, EP39 or EX39 as specified in ANSI C81.61; and
- (o) a lamp that has a B, BA, CA, F, G16-½, G25, G30, S or M-14 shape or other similar shape as specified in ANSI C78.20 and ANSI C79.1 and a maximum nominal power of 40 W.

Luminous flux

(2) For the purposes of these Regulations, the luminous flux of a modified spectrum incandescent lamp must be calculated in accordance with IES LM45, except that the lamp must be tested at 120 V regardless of its nominal voltage.

Energy-using product

438 (1) A modified spectrum incandescent lamp is prescribed as an energy-using product.

Limits

(2) However, a modified spectrum incandescent lamp is not considered to be an energy-using product

(a) for the purposes of sections 4 and 439,

(i) if it is a rough service lamp, a vibration service lamp, a shatter-resistant lamp or a lamp with an E26d screw base,

(ii) if it has a luminous flux of at least 788 lm and was manufactured before January 1, 2014, or

(iii) if it has a luminous flux of less than 788 lm and was manufactured before December 31, 2014; and

(b) for the purposes of sections 5 and 425 to 429, if it was manufactured before September 1, 2008.

Energy efficiency standards

439 (1) The energy efficiency standards set out in column 2 of the table to this section apply to modified spectrum incandescent lamps described in column 1 that are manufactured during the periods set out in column 3.

Testing standard

(2) A modified spectrum incandescent lamp complies with the energy efficiency standard if it meets that standard when tested in accordance with testing procedures that are applicable to a *modified spectrum incandescent lamp* as defined in section 437 and set out in the following standards:

(a) IES LM45 for the nominal power;

- (b) IES LM49 for the life of the product; and
- (c) CIE 13.3 for the colour rendering index.

Adjusted testing procedure

(3) The testing referred to in subsection (2) must, despite any provision to the contrary in the identified standard, be conducted with the lamp operating at 120 V regardless of its nominal voltage.

TABLE

Item	Column 1 Energy-using Product	Column 2 Energy Efficiency Standard	Column 3 Period of Manufacture
1	Modified spectrum incandescent lamps that have a luminous flux of < 563 lm	Nominal power ≤ 29 W Life ≥ 1 000 hours Colour rendering index ≥ 75	On or after December 31, 2014
2	Modified spectrum incandescent lamps that have a luminous flux of ≥ 563 lm and < 788 lm	Nominal power ≤ 43 W Life ≥ 1 000 hours Colour rendering index ≥ 75	On or after December 31, 2014
3	Modified spectrum incandescent lamps that have a luminous flux of ≥ 788 lm and < 1 118 lm	Nominal power ≤ 53 W Life ≥ 1 000 hours Colour rendering index ≥ 75	On or after January 1, 2014
4	Modified spectrum incandescent lamps that have a luminous flux of ≥ 1 118 lm	Nominal power ≤ 72 W Life ≥ 1 000 hours Colour rendering index ≥ 75	On or after January 1, 2014

Information

440 For the purpose of subsection 5(1) of the Act, the following information must be provided to the Minister in respect of a modified spectrum incandescent lamp:

- (a) a description of the lamp, collected in accordance with ANSI C79.1;

- (b) its colour rendering index, collected in accordance with CIE 13.3;
- (c) its correlated colour temperature, collected in accordance with CIE 15;
- (d) the following information collected in accordance with IES LM45, with the testing procedure adjusted in accordance with subsection 439(3), namely,

- (i) its nominal power, expressed in watts, or if it is a three-way lamp, its nominal power, expressed in watts, at each operating level, and
- (ii) its luminous flux, expressed in lumens, or if it is a three-way lamp, its luminous flux, expressed in lumens, at each operating level; and

- (e) its life, expressed in hours, collected in accordance with IES LM49, with the testing procedure adjusted in accordance with subsection 439(3).

SUBDIVISION D

General Service Incandescent Reflector Lamps

Definitions

441 The following definitions apply in this Subdivision.

CSA C862-01 means the CSA standard CAN/CSA-C862-01 entitled *Performance of Incandescent Reflector Lamps. (CSA C862-01)*

CSA C862-09 means the CSA standard CAN/CSA-C862-09 entitled *Performance of Incandescent Reflector Lamps. (CSA C862-09)*

CSA C862-12 means the CSA standard CSA-C862-12 entitled *Performance of Incandescent Reflector Lamps. (CSA C862-12)*

general service incandescent reflector lamp means an incandescent reflector lamp that has a bulb shape described in ANSI C79.1 or a bulb shape similar to that shape, and that has an E26/24 single contact or E26/50×39 skirted medium screw base, a nominal voltage of at least 100 V but not more than 130 V or a nominal voltage range that lies at least partially between those voltages, a diameter of more than 57 mm and a nominal power of at least 40 W but not more than 205 W. It does not include any of the following:

- (a) a coloured lamp;
- (b) a rough service lamp;
- (c) a vibration service lamp;
- (d) a shatter-resistant lamp;
- (e) an appliance lamp;
- (f) a plant lamp;
- (g) a silver bowl lamp;
- (h) a submersible lamp;
- (i) an infrared lamp;
- (j) a lamp that is marketed for heat sensitive applications or for mine, terrarium, vivarium, airfield, aircraft or automotive use;
- (k) a BR30 lamp or BR40 lamp, that has a nominal power of 50 W or less or of 65 W;
- (l) an R20 lamp that has
 - (i) a nominal power of 45 W or less, or
 - (ii) a nominal power of 100 W, a nominal overall length of not more than 92 mm (3.625 in) and that is designed and marketed for pool and spa applications; or
- (m) a modified spectrum lamp that
 - (i) is an ER30 or ER40 lamp, that has a nominal power of 50 W or less,
 - (ii) is ER40 lamp that has a nominal power of 65 W, or
 - (iii) is manufactured before July 15, 2012. (*lampe-reflecteur à incandescence standard*)

Energy-using product

442 (1) A general service incandescent reflector lamp is prescribed as an energy-using product.

Limits

(2) However, a general service incandescent reflector lamp is not considered to be an energy-using product

(a) for the purpose of section 4, if it was manufactured before December 31, 1996; and

(b) for the purposes of sections 425 to 429, if it was manufactured before September 1, 2008.

Energy efficiency standards

443 (1) The energy efficiency standards set out in column 2 of the table to this section apply to general service incandescent reflector lamps described in column 1 that are manufactured during the periods set out in column 3.

Testing standard

(2) A general service incandescent reflector lamp complies with the energy efficiency standard if it meets that standard when tested in accordance with testing procedures established by CSA C862-12 that are applicable to a *general service incandescent reflector lamp* as defined in section 441.

TABLE

	Column 1	Column 2	Column 3
Item	Energy-using Product	Energy Efficiency Standard	Period of Manufacture
1	General service incandescent reflector lamps	CSA C862-01, Tables 1 and 2	Before June 1, 2009
2	General service incandescent reflector lamps that are ER30 or ER40 lamps with a nominal power of 50 W	7.0 lm/W	On or after June 1, 2009
3	General service incandescent reflector lamps that are ER30 or ER40 lamps with a nominal power of < 50 W	10.5 lm/W	On or after June 1, 2009
4	General service incandescent reflector lamps that are ER40 lamps with a nominal power of 65 W	12.5 lm/W	On or after June 1, 2009
5	General service incandescent reflector lamps, other than ER30 or ER40 lamps with a nominal power of \leq 50 W and ER40 lamps with a nominal power of 65 W	CSA C862-09, Table 1	On or after June 1, 2009 and before July 15, 2012
6	General service incandescent reflector lamps, other than ER30 or ER40 lamps with a nominal power of \leq 50 W and ER40 lamps with a nominal power of 65 W	CSA C862-12, Table 1	On or after July 15, 2012

Information

444 For the purpose of subsection 5(1) of the Act, the information set out in column 3 of the table to this section must be collected in accordance with the standard set out in column 2 and provided to the Minister in respect of a general service incandescent reflector lamp described in column 1.

TABLE

	Column 1	Column 2	Column 3
Item	Energy-using Product	Standard	Information
1	General service incandescent reflector lamps manufactured before June 1, 2009	CSA C862-12	(a) description; (b) nominal power, in W; (c) average lamp efficacy; (d) life, in hours; and (e) luminous flux.
2	General service incandescent reflector lamps manufactured on or after June 1, 2009	CSA C862-12 for information set out in paragraphs (a) to (g) CIE 15 for correlated colour temperature in paragraph (h)	(a) description; (b) nominal power, in W; (c) average lamp efficacy at nominal voltage and at 120 V; (d) life, in hours; (e) nominal voltage or voltage range; (f) luminous flux, rounded to nearest tenth, at nominal voltage and at 120 V; (g) diameter; (h) correlated colour temperature; and (i) if applicable, identification of lamp as a modified spectrum lamp.

SUBDIVISION E

General Service Fluorescent Lamps

Definitions

445 The following definitions apply in this Subdivision.

10 CFR 430.32(n)(4) means the table to subsection 430.32(n)(4) of Subpart B, Part 430 of Title 10 to the United States *Code of Federal Regulations*, as amended from time to time. (10 CFR 430.32(n)(4))

ANSI C78.81 means the ANSI standard ANSI C78.81-2010 entitled *American National Standard for Electric Lamps Double-Capped Fluorescent Lamps — Dimensional and Electrical Characteristics*. (ANSI C78.81)

ANSI C78.901 means the ANSI standard ANSI C78.901-2005 entitled *American National Standard for Electric Lamps Single — Based Fluorescent Lamps — Dimensional and Electrical Characteristics*. (ANSI C78.901)

CSA C819-95 means the CSA standard CAN/CSA-C819-95 entitled *Performance of General Service Fluorescent Lamps*. (CSA C819-95)

CSA C819-11 means the CSA standard CSA-C819-11 entitled *Performance of General Service Fluorescent Lamps*. (CSA C819-11)

cold temperature fluorescent lamp means a fluorescent lamp that is marketed for outdoor or cold temperature use and that is designed to start at temperatures as low as -29°C (-20°F) when used with a ballast that conforms to the requirements of ANSI C78.81 and ANSI C78.901. (*lampe fluorescente pour basses températures*)

coloured fluorescent lamp means a fluorescent lamp that has

- (a) a colour rendering index of less than 40, as determined in accordance with CIE 13.3; or
- (b) a correlated colour temperature of less than 2 500 K or more than 7 000 K, as determined in accordance with the IES standard IES LM-9-09 entitled *Approved Method for the Electrical and Photometric Measurements of Fluorescent Lamps*. (*lampe fluorescente colorée*)

general service fluorescent lamp means a fluorescent lamp that

- (a) is straight-shaped and has a nominal overall length of 1 200 mm (48 in), a medium bi-pin base and a nominal power of at least 25 W;
- (b) is U-shaped and has a nominal overall length of at least 560 mm (22 in) but not more than 635 mm (25 in), a medium bi-pin base and a nominal power of at least 25 W;
- (c) is rapid-start and straight-shaped and has a nominal overall length of 2 400 mm (96 in) and a recessed double-contact base;
- (d) is instant-start and straight-shaped and has a nominal overall length of 2 400 mm (96 in), a single-pin base and a nominal power of at least 52 W;
- (e) is straight-shaped and standard output and has a nominal overall length of at least 1 125 mm (45 in) but not more than 1 200 mm (48 in), a miniature bi-pin base and a nominal power of at least 26 W;
- (f) is straight-shaped and high output with a nominal overall length of at least 1 125 mm (45 in) but not more than 1 200 mm (48 in), a miniature bi-pin base and a nominal power of at least 49 W; or
- (g) is a physical and electrical equivalent of a lamp described in any of paragraphs (a) to (f).

It does not include any of the following:

- (h) a fluorescent lamp that is marketed as a plant lamp;
- (i) a cold temperature fluorescent lamp;
- (j) a coloured fluorescent lamp;
- (k) a fluorescent lamp that is designed to be impact-resistant;
- (l) a reflectorized or aperture fluorescent lamp;
- (m) a fluorescent lamp that is designed for use in reprographic equipment;
- (n) a fluorescent lamp that is primarily designed to produce ultraviolet radiation; or
- (o) a fluorescent lamp that has a colour-rendering index of at least 87. (*lampe fluorescente standard*)

Energy-using product

446 (1) A general service fluorescent lamp is prescribed as an energy-using product.

Limit

(2) However, for the purpose of section 4, a general service fluorescent lamp is not considered to be an energy-using product unless it is manufactured on or after December 31, 1996.

Energy efficiency standards

447 (1) The energy efficiency standards set out in column 3 of the table to this section apply to general service fluorescent lamps described in column 1 that are manufactured during the periods set out in column 4.

Testing standard

(2) A general service fluorescent lamp complies with the energy efficiency standard if it meets that standard when tested in accordance with testing procedures established by the standard set out in column 2 that are

applicable to a *general service fluorescent lamp* as defined in section 445.

TABLE

	Column 1	Column 2	Column 3	Column 4
Item	Energy-using Product	Standard	Energy Efficiency Standard	Period of Manufacture
1	General service fluorescent lamps that are rapid-start and straight-shaped and that have a nominal overall length of 1 200 mm, a medium bi-pin base and a nominal power of > 35 W	CSA C819-95	Average lamp efficacy ≥ 75 lm/W Average colour rendering index ≥ 69	Before July 15, 2012
2	General service fluorescent lamps that are rapid-start and straight-shaped and that have a nominal overall length of 1 200 mm, a medium bi-pin base and a nominal power of ≤ 35 W	CSA C819-95	Average lamp efficacy ≥ 75 lm/W Average colour rendering index ≥ 45	Before July 15, 2012
3	General service fluorescent lamps that are rapid-start and straight-shaped and that have a nominal overall length of 2 400 mm, a recessed double-contact base, a nominal power of > 100 W and a nominal current of 0.8 A	CSA C819-95	Average lamp efficacy ≥ 80 lm/W Average colour rendering index ≥ 69	Before July 15, 2012
4	General service fluorescent lamps that are rapid-start and straight-shaped and that have a nominal overall length of 2 400 mm, a recessed double-contact base, a nominal power of ≤ 100 W and a nominal current of 0.8 A	CSA C819-95	Average lamp efficacy ≥ 80 lm/W Average colour rendering index ≥ 45	Before July 15, 2012
5	General service fluorescent lamps that are rapid-start and U-shaped and that have a nominal overall length of ≥ 560 mm but ≤ 635 mm, a medium bi-pin base and a nominal power of > 35 W	CSA C819-95	Average lamp efficacy ≥ 68 lm/W Average colour rendering index ≥ 69	Before July 15, 2012
6	General service fluorescent lamps that are rapid-start and U-shaped and that have a nominal overall length of ≥ 560 mm but ≤ 635 mm, a medium bi-pin base and a	CSA C819-95	Average lamp efficacy ≥ 64 lm/W Average colour rendering index ≥ 45	Before July 15, 2012

nominal power of ≤ 35 W

7	General service fluorescent lamps that are instant-start and straight-shaped and that have a nominal overall length of 2 400 mm, a single-pin base and a nominal power of > 65 W	CSA C819-95	Average lamp efficacy ≥ 80 lm/W Average colour rendering index ≥ 69	Before July 15, 2012
8	General service fluorescent lamps that are instant-start and straight-shaped and that have a nominal overall length of 2 400 mm, a single-pin base and a nominal power of ≤ 65 W	CSA C819-95	Average lamp efficacy ≥ 80 lm/W Average colour rendering index ≥ 45	Before July 15, 2012
9	General service fluorescent lamps	CSA C819-11	CSA C819-11, Table 1	On or after July 15, 2012 and before January 26, 2018
10	General service fluorescent lamps	CSA C819-11	Average lamp efficacy $\times 1.011 >$ the minimum average lamp efficacy for the product in 10 CFR 430.32(n)(4)	On or after January 26, 2018

Information

448 (1) For the purpose of subsection 5(1) of the Act, the following information must be provided to the Minister in respect of a general service fluorescent lamp:

- (a) its nominal power, expressed in watts;
- (b) its shape;
- (c) its nominal overall length;
- (d) its diameter;
- (e) its base type;
- (f) its abbreviation under the designation system in ANSI C78.81, Annex A, and ANSI C78.901, Annex B;
- (g) its correlated colour temperature;
- (h) its average colour-rendering index; and
- (i) the average lamp efficacy.

Standard

(2) The information must be collected in accordance with one of the following standards:

- (a) CSA C819-95, if the product was manufactured before July 15, 2012; or
- (b) CSA C819-11, if the product is manufactured on or after July 15, 2012.

SUBDIVISION F

Fluorescent Lamp Ballasts

Definitions

449 The following definitions apply in this Subdivision.

CSA C654-10 means the CSA standard CAN/CSA-654-10 entitled *Fluorescent Lamp Ballast Efficacy Measurements*. (CSA C654-10)

CSA C654-14 means the CSA standard CAN/CSA-654-14 entitled *Fluorescent Lamp Ballast Efficacy Measurements*. (CSA C654-14)

fluorescent lamp ballast means a device that is

- (a) designed to start and operate fluorescent lamps by
 - (i) providing the necessary voltage and current,
 - (ii) limiting the current during normal operation, and
 - (iii) if necessary to facilitate lamp operation, providing cathode heating;
- (b) designed for input of 120 V, 277 V or 347 V; and
- (c) designed to operate an F32T8, F34T12, F40T10 or F40T12 rapid-start fluorescent lamp or an F96T12ES, F96T12IS, F96T12HO or F96T12HO ES fluorescent lamp.

It does not include any of the following:

- (d) a ballast that is designed to be used in an outdoor sign and to operate two F96T12HO fluorescent lamps in ambient temperatures at or below -28.9°C ;
- (e) a ballast that, by means of an integrated dimming capability, can reduce the output of the fluorescent lamp by 50% or more;
- (f) a low-frequency T8 ballast that is designed and marketed only for use in an electromagnetic-interference-sensitive environment and that is sold in a package of 10 or fewer; or
- (g) a program-start ballast that is designed to operate one or more T8 fluorescent lamps with a nominal overall length of 1 200 mm and a medium bi-pin base, and that delivers an average current of less than 140 mA to each lamp. (*ballast pour lampes fluorescentes*)

Energy-using product

450 (1) A fluorescent lamp ballast is prescribed as an energy-using product.

Limit

(2) However, for the purposes of sections 4, 5 and 451, a fluorescent lamp ballast is not considered to be an energy-using product unless it is manufactured on or after February 3, 1995.

Energy efficiency standards

451 (1) The energy efficiency standards set out in column 2 of the table to this section apply to fluorescent lamp ballasts that are manufactured during the periods described in column 3.

Testing standard

(2) A fluorescent lamp ballast complies with the energy efficiency standard if it meets that standard when tested in accordance with testing procedures established by the standard set out in column 1 that are applicable to a *fluorescent lamp ballast* as defined in section 449.

TABLE

	Column 1	Column 2	Column 3
Item	Standard	Energy Efficiency Standard	Period of Manufacture
1	CSA C654-10	CSA C654-10, clause 4 for power factor	On or after February 3, 1995 and before November 14, 2014

		CSA C654-10, Table 2 for ballast efficacy factor	
2	CSA C654-14	CSA C654-14, clause 4 for power factor CSA C654-14, clause 5.2 for ballast luminous efficiency	On or after November 14, 2014

Information

452 For the purpose of subsection 5(1) of the Act, the information set out in column 3 of the table to this section must be collected in accordance with the standard set out in column 2 and provided to the Minister in respect of a fluorescent lamp ballast described in column 1.

TABLE

	Column 1	Column 2	Column 3
Item	Energy-using Product	Standard	Information
1	Fluorescent lamp ballasts manufactured on or after February 3, 1995 and before November 14, 2014	CSA C654-10	(a) ballast efficacy factor; (b) type and number of fluorescent lamps it is designed to operate; and (c) nominal input voltage.
2	Fluorescent lamp ballasts manufactured on or after November 14, 2014	CSA C654-14	(a) class number set out in Table 1A of CSA C654-14; (b) ballast luminous efficiency; (c) nominal input voltage; (d) ballast input power, in watts; (e) total lamp arc power, in watts; and (f) power factor.

[453 to 505 reserved]

DIVISION 8

Lighting Fixtures

Interpretation

Definitions

506 The following definitions apply in this Division.

ITE VTCSH means the Institute of Transportation Engineers standard entitled *Vehicle Traffic Control Signal Heads: Light Emitting Diode (LED) Circular Signal Supplement*, dated June 27, 2005. (*ITE VTCSH*)

pin-based means, with respect to a socket of a ceiling fan or ceiling fan light kit, one that is designed to hold a fluorescent lamp that is not integrally ballasted and that has a plug-in lamp base. It does not include a GU-24

socket. (*à broche*)

SUBDIVISION A

Torchieres

Definitions

507 The following definitions apply in this Subdivision.

CSA C22.2 No. 12 means the CSA standard C22.2 No. 12-1982 entitled *Portable Luminaires*. (*CSA C22.2 n° 12*)

torchiere means a portable luminaire that has a reflector bowl or similar-shaped reflector that directs light in a predominantly upward direction for the purpose of providing indirect lighting and that may be equipped with one or more additional sockets intended for other lighting functions. (*torchère*)

Energy-using product

508 (1) A torchiere is prescribed as an energy-using product.

Limit

(2) However, for the purposes of sections 4, 5 and 509, a torchiere is not considered to be an energy-using product unless it is manufactured on or after January 1, 2007.

Energy efficiency standards

509 (1) The energy efficiency standards set out in column 2 of the table to this section apply to torchieres described in column 1 that are manufactured during the periods set out in column 3.

Testing standard

(2) A torchiere complies with the energy efficiency standard if it meets that standard when tested in accordance with testing procedures established by CSA C22.2 No. 12 that are applicable to a *torchiere* as defined in section 507.

TABLE

	Column 1	Column 2	Column 3
Item	Energy-using Product	Energy efficiency Standard	Period of Manufacture
1	Torchieres that have no additional sockets	Total power \leq 190 W	On or after January 1, 2007 and before January 1, 2010
2	Torchieres that have no additional sockets	Total power \leq 75 W	On or after January 1, 2010
3	Torchieres that have one or more additional sockets	Total power \leq 230 W	On or after January 1, 2007 and before January 1, 2010
4	Torchieres that have one or more additional sockets	Total power \leq 100 W	On or after January 1, 2010

Information

510 For the purpose of subsection 5(1) of the Act, the following information must be collected in accordance with CSA C22.2 No. 12 and provided to the Minister in respect of a torchiere:

- (a) information that indicates whether the product has lighting functions additional to those in the bowl; and
- (b) the total power, expressed in watts, for all lighting functions.

SUBDIVISION B

Ceiling Fans

Definitions

511 The following definitions apply in this Subdivision.

ceiling fan means a household ceiling fan that has integrated lighting. (*ventilateur de plafond*)

CSA C22.2 No. 9 means the CSA standard C22.2 No. 9.0-96 entitled *General Requirements for Luminaires*. (*CSA C22.2 n^o 9*)

Energy-using product

512 (1) A ceiling fan is prescribed as an energy-using product.

Limits

(2) However, a ceiling fan is not considered to be an energy-using product

- (a) for the purposes of sections 4 and 5, unless it is manufactured on or after January 1, 2010; and
- (b) for the purpose of section 513, unless it has a total power of more than 10 W, has at least one socket that is not pin-based and is manufactured on or after January 1, 2010.

Energy efficiency standard

513 (1) The energy efficiency standard that applies to a ceiling fan described in paragraph 512(2)(b) is that the total power for the integrated lighting must be less than or equal to 190 W.

Testing standard

(2) A ceiling fan complies with the energy efficiency standard if it meets that standard when tested in accordance with testing procedures established by CSA C22.2 No. 9 that are applicable to a *ceiling fan* as defined in section 511.

Information

514 For the purpose of subsection 5(1) of the Act, the following information must be collected in accordance with CSA C22.2 No. 9 and provided to the Minister in respect of a ceiling fan:

- (a) the type of sockets for the integrated lighting; and
- (b) the total power, expressed in watts, for the integrated lighting.

SUBDIVISION C

Ceiling Fan Light Kits

Definition of ceiling fan light kit

515 In this Subdivision, *ceiling fan light kit* means equipment that is designed to be attached to a ceiling fan for the purpose of providing light.

Energy-using product

516 (1) A ceiling fan light kit is prescribed as an energy-using product.

Limits

(2) However, a ceiling fan light kit is not considered to be an energy-using product

- (a) for the purposes of sections 4 and 5, unless it is manufactured on or after January 1, 2010; and
- (b) for the purpose of section 517, unless it has at least one socket that is not pin-based and is manufactured on or after January 1, 2010.

Energy efficiency standard

517 (1) The energy efficiency standard that applies to a ceiling fan light kit described in paragraph 516(2)(b) is that the total power for the product must be less than or equal to 190 W.

Testing standard

(2) A ceiling fan light kit complies with the energy efficiency standard if it meets that standard when tested in accordance with testing procedures established by CSA C22.2 No. 9 that are applicable to a *ceiling fan light kit* as defined in section 515.

Information

518 For the purpose of subsection 5(1) of the Act, the following information must be collected in accordance with CSA C22.2 No. 9 and provided to the Minister in respect of a ceiling fan light kit:

- (a) its socket type; and
- (b) its total power, expressed in watts.

SUBDIVISION D

Exit Signs

Definitions

519 The following definitions apply in this Subdivision.

CSA C860 means the CSA standard CAN/CSA C860-11 entitled *Performance of Internally Lighted Exit Signs*. (*CSA C860*)

exit sign means an *exit sign* as defined in CSA C860. It does not include an exit sign that flashes or that is photoluminescent or radioluminescent. (*enseigne de sortie*)

legend means any of the following that is displayed on an exit sign:

- (a) a representation of a running person, as described in Annex B.1 of CSA C22.2 No. 141; and
- (b) the word "EXIT" or "SORTIE". (*légende*)

Energy-using product

520 (1) An exit sign is prescribed as an energy-using product.

Limit

(2) However, for the purpose of section 4, an exit sign is not considered to be an energy-using product unless it is manufactured on or after November 1, 2004.

Energy efficiency standards

521 (1) The energy efficiency standards set out in column 2 of the table to this section apply to exit signs described in column 1.

Testing standard

(2) An exit sign complies with the energy efficiency standard if it meets that standard when tested in accordance with testing procedures established by CSA C860 that are applicable to an *exit sign* as defined in section 519.

TABLE

	Column 1	Column 2
Item	Energy-using Product	Energy Efficiency Standard
1	Type 1 and Type 2 exit signs	Wattage $\leq 5 \text{ W} \times (\text{number of legends})$
2	Type 3 exit signs	Wattage $\leq 5 \text{ W} \times (\text{number of legends}) + 5 \text{ W}$

Information

522 For the purpose of subsection 5(1) of the Act, the following information must be collected in accordance with CSA C860 and provided to the Minister in respect of an exit sign:

- (a) its type;
- (b) its power consumption, expressed in watts; and
- (c) the number of legends.

SUBDIVISION E

Traffic Signal Modules

Definitions

523 The following definitions apply in this Subdivision.

traffic signal module means a self-contained device that is designed to

- (a) fit into a traffic signal housing; and
- (b) provide drivers with movement information by means of a red or green traffic signal indicator that is 203.2 mm or 304.8 mm in diameter. (*module de signalisation routière*)

VTCSH Arrow means the Institute of Transportation Engineers standard entitled *Vehicle Traffic Control Signal Heads: Light Emitting Diode (LED) Vehicle Arrow Traffic Signal Supplement*, dated July 1, 2007. (*VTCSH Arrow*)

VTCSH Circular means the Institute of Transportation Engineers standard entitled *Vehicle Traffic Control Signal Heads: Light Emitting Diode (LED) Circular Signal Supplement*, dated June 27, 2005. (*VTCSH Circular*)

Energy-using product

524 (1) An traffic signal module is prescribed as an energy-using product.

Limit

(2) However, for the purposes of sections 4, 5 and 525, a traffic signal module is not considered to be an energy-using product unless it is manufactured on or after January 1, 2007.

Energy efficiency standards

525 (1) The energy efficiency standards set out in column 3 of the table to this section apply to traffic signal modules described in column 1.

Testing Procedures

(2) For the purpose of subsection (1), the maximum power and nominal power of a traffic signal module must be determined in accordance with the following procedures:

- (a) the luminous intensity of the product must be determined in accordance with the procedures established by the standard set out in column 2 that are applicable to a *traffic signal module* as

defined in section 523;

(b) the product's power must be measured using a watt meter that has an accuracy of $\pm 1\%$;

(c) when determining the product's maximum power, the product must be

(i) mounted in a temperature testing chamber with the lens portion of the product outside the chamber, and

(ii) operated for a minimum of 60 minutes at a temperature of 74°C and with the temperature in front of the lens maintained at a minimum of 49°C; and

(d) when determining the product's nominal power, the product must be operated for a minimum of 60 minutes at an ambient temperature of 25°C.

TABLE

	Column 1	Column 2	Column 3
Item	Energy-using Product	Standard	Energy Efficiency Standard
1	Traffic signal modules that have a red light traffic signal indicator that is 203.2 mm in diameter	VTCSH Circular	Maximum power ≤ 13 W Nominal power ≤ 8 W
2	Traffic signal modules that have a red light traffic signal indicator that is 304.8 mm in diameter	VTCSH Circular	Maximum power ≤ 17 W Nominal power ≤ 11 W
3	Traffic signal modules that have a green light traffic signal indicator that is 203.2 mm in diameter	VTCSH Circular	Maximum power ≤ 12 W Nominal power ≤ 12 W
4	Traffic signal modules that have a green light traffic signal indicator that is 304.8 mm in diameter	VTCSH Circular	Maximum power ≤ 15 W Nominal power ≤ 15 W
5	Traffic signal modules that have a red arrow traffic signal indicator	VTCSH Arrow	Maximum power ≤ 12 W Nominal power ≤ 9 W
6	Traffic signal modules that have a green arrow traffic signal indicator	VTCSH Arrow	Maximum power ≤ 11 W Nominal power ≤ 11 W

Information

526 (1) For the purpose of subsection 5(1) of the Act, the following information must be provided to the Minister in respect of a traffic signal module:

- (a) its type;
- (b) its maximum power, expressed in watts; and
- (c) its nominal power, expressed in watts.

Standard

(2) The information must be collected in accordance with

- (a) VTSCH Arrow, if the traffic signal module has an arrow traffic signal indicator; or
- (b) VTSCH Circular, if the traffic signal module has any other traffic signal indicator.

SUBDIVISION F

Pedestrian Modules

Definitions

527 The following definitions apply in this Subdivision.

pedestrian module means a self-contained device that is designed

- (a) to fit into a pedestrian signal housing; and
- (b) to provide pedestrians with movement information by means of a walking person display or a hand display but not by means of a countdown message. (*module de signalisation piétonnière*)

PTCSI means the Institute of Transportation Engineers standard entitled *Pedestrian Traffic Control Signal Indicators: Light Emitting Diode (LED) Signal Modules*, dated August 4, 2010. (*PTCSI*)

Energy-using product

528 (1) A pedestrian module is prescribed as an energy-using product.

Limit

(2) However, for the purposes of sections 4, 5 and 529, a pedestrian module is not considered to be an energy-using product unless it is manufactured on or after January 1, 2007.

Energy efficiency standards

529 (1) The energy efficiency standards set out in column 2 of the table to this section apply to pedestrian modules described in column 1.

Testing Procedures

(2) For the purpose of subsection (1), the maximum power and nominal power of a pedestrian module must be determined in accordance with the following procedures:

- (a) the luminous intensity of the product must be determined in accordance with the procedures established by PTCSI that are applicable to a *pedestrian module* as defined in section 527;
- (b) the product's power must be measured using a watt meter that has an accuracy of $\pm 1\%$;
- (c) when determining the product's maximum power, the product must be
 - (i) mounted in a temperature testing chamber with the lens portion of the product outside the chamber, and
 - (ii) operated for a minimum of 60 minutes at a temperature of 74°C and with the temperature in front of the lens maintained at a minimum temperature of 49°C; and
- (d) when determining the product's nominal power, the product must be operated for a minimum of

60 minutes at an ambient temperature of 25°C.

TABLE

	Column 1	Column 2
Item	Energy-using Product	Energy Efficiency Standard
1	Pedestrian modules that have a walking person display and a hand display	Maximum power \leq 16 W Nominal power \leq 13 W
2	Pedestrian modules that have a walking person display only	Maximum power \leq 12 W Nominal power \leq 9 W
3	Pedestrian modules that have a hand display only	Maximum power \leq 16 W Nominal power \leq 13 W

Information

530 For the purpose of subsection 5(1) of the Act, the following information must be collected in accordance with PTC SI and provided to the Minister in respect of a pedestrian module:

- (a) its type;
- (b) its maximum power, expressed in watts; and
- (c) its nominal power, expressed in watts.

[531 to 572 reserved]

DIVISION 9

Electronic Products

Interpretation

Definitions

573 The following definitions apply in this Division.

CSA C62301 means the CSA standard CAN/CSA-C62301:11 entitled *Household Electrical Appliances – Measurement of Standby Power*. (CSA C62301)

information display means a clock or other device that provides visual alphanumeric or graphical information or indicates the status of the equipment. (*affichage*)

SUBDIVISION A

Compact Audio Products

Definitions

574 The following definitions apply in this Subdivision.

compact audio product means a product that consists of an amplifier and a terrestrial tuner that are encased in a single housing — including a product that can produce sound from another media — and that uses mains power as at least one source of power and has attached or separable speakers. (*produit audio compact*)

off mode means the mode in which the product, while connected to mains power, cannot produce sound or provide any mechanical function and cannot be switched into another mode except by means of a manual switch on the product. (*mode arrêt*)

standby mode means the mode in which the product, while connected to mains power, cannot produce sound or provide any mechanical function, but can be switched into another mode with a remote control unit, an internal signal or an internal timer. (*mode veille*)

Energy-using product

575 (1) A compact audio product is prescribed as an energy-using product.

Limit

(2) However, for the purposes of sections 4, 5 and 576, a compact audio product is not considered to be an energy-using product unless it is manufactured on or after May 1, 2011.

Energy efficiency standards

576 (1) The energy efficiency standards set out in column 2 of the table to this section apply to compact audio products described in column 1 that are manufactured during the periods set out in column 3.

Testing standard

(2) A compact audio product complies with the energy efficiency standard if it meets that standard when tested in accordance with testing procedures established by CSA C62301 that are applicable to a *compact audio product* as defined in section 574.

TABLE

	Column 1	Column 2	Column 3
Item	Energy-using Product	Energy Efficiency Standard	Period of Manufacture
1	Compact audio products	<p>Must be capable of entering standby mode or off mode.</p> <p>Power consumption of product must be, as applicable,</p> <p style="padding-left: 40px;">(a) ≤ 3 W in standby mode; and (b) ≤ 1 W in off mode.</p>	On or after May 1, 2011 and before January 1, 2013
2	Compact audio products, other than clock radios	<p>Must be capable of entering standby mode or off mode.</p> <p>Power consumption of product must be, as applicable,</p> <p style="padding-left: 40px;">(a) ≤ 1 W in standby mode with information display active; (b) ≤ 0.5 W in standby mode with information display</p>	On or after January 1, 2013

		inactive; (c) ≤ 0.5 W in standby mode when there is no information display; and (d) ≤ 0.5 W in off mode.	
3	Compact audio products that are clock radios	Must be capable of entering standby mode or off mode. Power consumption of product must be, as applicable, (a) ≤ 2 W in standby mode with information display active; and (b) ≤ 1 W in off mode.	On or after January 1, 2013

Information

577 For the purpose of subsection 5(1) of the Act, the following information must be collected in accordance with CSA C62301 and provided to the Minister in respect of a compact audio product:

- (a) its type;
- (b) if it was manufactured before January 1, 2013 and has standby mode, its power consumption in that mode, expressed in watts;
- (c) if it is manufactured on or after January 1, 2013 and has standby mode, its power consumption in that mode, expressed in watts, as applicable,
 - (i) with the information display active,
 - (ii) with the information display inactive, and
 - (iii) without the information display;
- (d) if it has standby mode, the period, expressed in minutes, that begins when standby mode is enabled and ends when the measurement of power consumption in that mode is completed; and
- (e) if it has off mode, its power consumption, expressed in watts, in off mode.

SUBDIVISION B

Video Products

Definitions

578 The following definitions apply in this Subdivision.

off mode means the mode in which the product, while connected to mains power, cannot provide any mechanical function and cannot be switched into another mode with a remote control unit, a timer or another internal or external signal. (*mode arrêt*)

standby mode means the mode in which the product, while connected to mains power, cannot produce either video or audio output signals or provide any mechanical function, but can be switched into another mode with a remote control unit, an internal signal or an internal timer. (*mode veille*)

video product means a household electronic product that is encased in a single housing, requires a power supply device in order to operate and is designed

- (a) to be connected to mains power; and
- (b) primarily to do one or both of the following, namely, produce audio and video signals from, or record those signals to, digital or analog media.

It does not include a camera or a portable DVD player that has both an integral display screen and a DC power

source. (*appareil vidéo*)

Energy-using product

579 (1) A video product is prescribed as an energy-using product.

Limit

(2) However, for the purposes of sections 4, 5 and 580, a video product is not considered to be an energy-using product unless it is manufactured on or after May 1, 2011.

Energy efficiency standards

580 (1) The energy efficiency standards set out in column 1 of the table to this section apply to video products that are manufactured during the periods set out in column 2.

Testing standard

(2) A video product complies with the energy efficiency standard if it meets that standard when tested in accordance with testing procedures established by CSA C62301 that are applicable to a *video product* as defined in section 578.

TABLE

	Column 1	Column 2
Item	Energy Efficiency Standard	Period of Manufacture
1	<p>Must be capable of entering standby mode or off mode.</p> <p>Power consumption of product must be, as applicable,</p> <p>(a) ≤ 3 W in standby mode; and</p> <p>(b) ≤ 1 W in off mode.</p>	<p>On or after May 1, 2011 and before January 1, 2013</p>
2	<p>Must be capable of entering standby mode or off mode.</p> <p>Power consumption of product must be, as applicable,</p> <p>(a) ≤ 1 W in standby mode with information display active;</p> <p>(b) ≤ 0.5 W in standby mode with information display inactive;</p> <p>(c) ≤ 0.5 W in standby mode without information display; and</p> <p>(d) ≤ 0.5 W in off mode.</p>	<p>On or after January 1, 2013</p>

Information

581 For the purpose of subsection 5(1) of the Act, the following information must be collected in accordance with CSA C62301 and provided to the Minister in respect of a video product:

- (a) if it was manufactured before January 1, 2013 and has standby mode, its power consumption in that mode, expressed in watts;
- (b) if it is manufactured on or after January 1, 2013 and has standby mode, its power consumption in

that mode, expressed in watts, as applicable,

- (i) with the information display active,
- (ii) with the information display inactive, and
- (iii) without the information display;

- (c) if it has standby mode, the period, expressed in minutes, that begins when standby mode is enabled and ends when the measurement of power consumption in that mode is completed;
- (d) if it has off mode, its power consumption, expressed in watts, in off mode; and
- (e) the type of playback or recording technology that it has.

SUBDIVISION C

Televisions

Definitions

582 The following definitions apply in this Subdivision.

off mode means the mode in which the product, while connected to mains power, cannot produce either sound or picture or provide any mechanical function and cannot be switched into another mode with a remote control unit, a timer or another internal or external signal. (*mode arrêt*)

standby mode means the mode in which the product, while connected to mains power, cannot produce either sound or picture or provide any mechanical function, but can be switched into another mode with a remote control unit, an internal signal or an internal timer. (*mode veille*)

television means an analog or digital product, with or without an internal tuner, that is designed primarily for the display and reception of a terrestrial, satellite, cable, Internet Protocol TV or other broadcast or recorded transmission of analog or digital video and audio signals and includes

- (a) a combination television system in which a television and one or more other devices are encased as a single unit in the television casing; and
- (b) a component television that has two or more separate components and that is marketed and sold as a television under one model or system designation.

It does not include

- (c) a television that is marketed exclusively for commercial use and is without an internal tuner; or
- (d) a television that is marketed primarily for use as a computer monitor. (*téléviseur*)

Energy-using product

583 (1) A television is prescribed as an energy-using product.

Limit

(2) However, for the purposes of sections 4, 5 and 584, a television is not considered to be an energy-using product unless it is manufactured on or after May 1, 2011.

Energy efficiency standards

584 (1) The energy efficiency standards set out in column 1 of the table to this section apply to televisions that are manufactured during the periods set out in column 2.

Testing standard

(2) A television complies with the energy efficiency standard if it meets that standard when tested in accordance with testing procedures established by CSA C62301 that are applicable to a *television* as defined in section 582.

TABLE

	Column 1	Column 2
Item	Energy Efficiency Standard	Period of Manufacture
1	<p>Must be capable of entering standby mode or off mode.</p> <p>Power consumption of product must be, as applicable,</p> <p>(a) ≤ 4 W in standby mode; and</p> <p>(b) ≤ 1 W in off mode.</p>	On or after May 1, 2011 and before January 1, 2013
2	<p>Must be capable of entering standby mode or off mode.</p> <p>Power consumption of product must be, as applicable,</p> <p>(a) ≤ 1 W in standby mode with information display active;</p> <p>(b) ≤ 0.5 W in standby mode with information display inactive;</p> <p>(c) ≤ 0.5 W in standby mode without information display; and</p> <p>(d) ≤ 0.5 W in off mode.</p>	On or after January 1, 2013

Information

585 For the purpose of subsection 5(1) of the Act, the following information must be collected in accordance with CSA C62301 and provided to the Minister in respect of a television:

- (a) if it was manufactured before January 1, 2013 and has standby mode, its power consumption in that mode, expressed in watts;
- (b) if it is manufactured on or after January 1, 2013 and has standby mode, its power consumption in that mode, expressed in watts, as applicable,
 - (i) with the information display active,
 - (ii) with the information display inactive, and
 - (iii) without the information display;
- (c) if it has standby mode, the period, expressed in minutes, that begins when standby mode is enabled and ends when the measurement of power consumption in standby mode is completed; and
- (d) if it has off mode, its power consumption, expressed in watts, in off mode.

SUBDIVISION D

External Power Supplies

Definitions

586 (1) The following definitions apply in this Subdivision.

10 CFR Appendix Z means Appendix Z to Subpart B, Part 430 of Title 10 to the United States *Code of Federal Regulations*, entitled *Uniform Test Method for Measuring the Energy Consumption of External Power Supplies*, as amended from time to time. (*appendix Z 10 CFR*)

CSA C381.1 means the CSA standard CAN/CSA-C381.1-08 entitled *Test Method for Calculating the Energy Efficiency of Single-voltage External AC/DC and AC/AC Power Supplies*. (*CSA C381.1*)

detachable battery pack means a battery that is encased in an enclosure separate from an end-use product and that is designed to be removed or disconnected from the end-use product for recharging. (*bloc-batterie amovible*)

external power supply means a power supply device that

- (a) is designed to convert line voltage AC into lower voltage DC or AC output;
- (b) is able to convert to only one DC or AC output voltage at a time;
- (c) is designed to be used with a household or office end-use product that constitutes the primary load;
- (d) is encased in an enclosure separate from that end-use product and is connected to the end-use product by an electrical connection; and
- (e) has a nominal output power of 250 W or less.

It does not include a device that

- (f) powers the charger of a detachable battery pack of an end-use product;
- (g) charges the battery of an end-use product that is fully or primarily motor-operated;
- (h) is an accessory to a **medical device** as defined in section 1 of the *Medical Devices Regulations*; or
- (i) is **power sourcing equipment** as defined in the IEEE standard IEEE 802.3-2008 entitled *Standard for Information Technology — Telecommunications and Information Exchange Between Systems — Specific Requirements Part 3*. (*bloc d'alimentation externe*)

replacement external power supply means an external power supply that

- (a) is marked as a replacement to be used with a specific end-use product that was manufactured before July 1, 2010; and
- (b) is imported or shipped in quantities of fewer than 50 units. (*bloc d'alimentation externe de remplacement*)

security external power supply means an external power supply manufactured before July 1, 2017 that

- (a) is designed to convert line voltage AC into lower voltage AC output;
- (b) has a nominal output power of 20 W or more; and
- (c) is designed for and marketed with equipment that operates continuously in on mode to perform any of the following principal functions:

- (i) to monitor, detect, record or provide notification of any intrusion on real property or immovables, or access to real property or immovables or physical assets or physical assets,
- (ii) to provide notification of threats to personal safety resulting from an intrusion or access referred to in subparagraph (i),
- (iii) to monitor, detect, record or provide notification of fire, gas, smoke, flooding or any other physical threats to real property or immovables, physical assets or personal safety, or
- (iv) to deter or control access to real property or immovables or physical assets or prevent the unauthorized removal of physical assets.

It includes an external power supply for equipment that is designed and marketed with a built-in alarm or theft-deterrent feature and whose principal functions are those referred to in paragraph (c). (*bloc d'alimentation externe de sécurité*)

Interpretation

(2) In this Subdivision, *certification body* and *verification mark* have the same meaning as in section 2.

Energy-using product

587 (1) An external power supply is prescribed as an energy-using product.

Limit

(2) However, an external power supply is not considered to be an energy-using product

- (a) for the purposes of sections 4 and 5, if it was manufactured before July 1, 2010; and
- (b) for the purpose of section 588, if it was manufactured before July 1, 2010 or is a replacement external power supply and was manufactured before July 1, 2013.

Energy efficiency standard

588 (1) The energy efficiency standard that applies to an external power supply is the following:

- (a) the minimum average efficiency of the product, at its highest and lowest nominal output power settings, must be equal to
 - (i) if the nominal output power is less than 1 W, $0.5 \times$ that power,
 - (ii) if the nominal output power is at least 1 W but less than or equal to 51 W, $0.09 \times \ln$ (the nominal output power) + 0.5, or
 - (iii) if the nominal output power is more than 51 W, 0.85; and
- (b) if the product is not a security external power supply, the no-load power must be less than or equal to 0.5 W.

Testing standard

(2) A external power supply complies with the energy efficiency standard if it meets that standard when tested in accordance with testing procedures established by CSA C381.1 or 10 CFR Appendix Z that are applicable to an *external power supply* as defined in subsection 586(1).

Information

589 For the purpose of subsection 5(1) of the Act, the following information must be collected in accordance with CSA C381.1 or 10 CFR Appendix Z, and provided to the Minister in respect of an external power supply:

- (a) its nominal output voltage, at the highest and lowest settings;
- (b) its nominal output power, expressed in watts, at the highest and lowest power settings, if applicable;
- (c) the output voltage type;
- (d) its average efficiency at the highest and lowest power settings, if applicable;
- (e) the no-load power, expressed in watts;
- (f) the Roman numeral mark, if applicable;
- (g) information that indicates whether the product bears a verification mark; and
- (h) if applicable, identification of the product as a replacement external power supply or a security external power supply and the end-use product or equipment, as applicable, and the model number and brand of that end-use product or equipment.

[590 to 634 reserved]

DIVISION 10

Commercial Refrigeration

Interpretation

Definition of E_{daily}

635 In this Division, E_{daily} means the daily energy consumption of a product, expressed in kilowatt hours per day.

SUBDIVISION A

Commercial Refrigerators, Refrigerator-Freezers and Freezers

Definitions

636 The following definitions apply in this Subdivision.

AV means, in respect of a commercial refrigerator-freezer, its adjusted volume in litres, which is the sum of the refrigerator volume and 1.63 times the freezer volume. (*VC*)

closed means

(a) in respect of a refrigerated compartment of a commercial refrigerator, commercial refrigerator-freezer or commercial freezer, that all its points of access can be closed off from the outside by a physical barrier and from which any refrigerated item can be accessed by opening a door or drawer; and

(b) in respect of a commercial refrigerator, commercial refrigerator-freezer or commercial freezer, that all of its compartments are as described in paragraph (a). (*type fermé*)

commercial freezer means a self-contained freezer, other than a household freezer or walk-in commercial freezer, that uses or is designed to be used with a vapour-compression refrigeration system and whose compartments are all designed for the freezing and display or storage of food, beverages or ice. (*congélateur commercial*)

commercial refrigerator means a self-contained refrigerator that uses or is designed to be used with a vapour-compression refrigeration system and whose compartments are all designed for the display or storage of food, beverages or flowers at temperatures at or above 0°C. It does not include a household refrigerator, refrigerated buffet table, refrigerated preparation table or walk-in commercial refrigerator. (*réfrigérateur commercial*)

commercial refrigerator-freezer means a self-contained refrigerator-freezer that uses or is designed to be used with a vapour-compression refrigeration system and that has two or more compartments, at least one of which is designed for the display or storage of food and beverages at temperatures at or above 0°C and at least one of which is designed for the freezing and display or storage of food and beverages at temperatures below 0°C. It does not include a household refrigerator-freezer or walk-in commercial refrigerator-freezer. (*réfrigérateur-congélateur commercial*)

CSA C657 means the CSA standard CSA C657-2015 entitled *Energy Performance Standard for Commercial Refrigeration Equipment*. (*CSA C657*)

open means, in respect of a commercial refrigerator, commercial refrigerator-freezer or commercial freezer — or a refrigerated compartment of one — that it is not closed. (*type ouvert*)

pull-down temperature reduction capability means the capability of a commercial refrigerator, when it is situated in an area that has an ambient temperature of 32.22°C and when it is fully loaded with 355 mL beverage cans that are at a temperature of 32.22°C at the time of loading, to cool those cans to an average stable temperature of 3.33°C in 12 hours or less. (*capacité d'abaisser la température*)

TDA means the total display area of a product, expressed in square metres. (*TDA*)

transparent means

(a) in respect of a refrigerated compartment of a commercial refrigerator, commercial refrigerator-freezer or commercial freezer, that it is closed and has a TDA that is at least 75% of the geometrically projected area of the refrigerated space on the plane of the face with the largest access space; and

(b) in respect of a commercial refrigerator, commercial refrigerator-freezer or commercial freezer, that all of its compartments are as described in paragraph (a). (*transparent*)

V means, in respect of a refrigerated compartment of a commercial refrigerator, commercial refrigerator-freezer or commercial freezer, its volume, expressed in litres, calculated in accordance with clause 8 of CSA C657. (*V*)

Commercial Refrigerators

Energy-using product

637 (1) A commercial refrigerator is prescribed as an energy-using product.

Limit

(2) However, a commercial refrigerator is not considered to be an energy-using product for the purposes of sections 4, 5 and 638 unless it is manufactured on or after April 1, 2007.

Energy efficiency standards

638 (1) The energy efficiency standards set out in column 2 of the table to this section apply to commercial refrigerators described in column 1 that are manufactured during the periods set out in column 3.

Testing standard

(2) A commercial refrigerator complies with the energy efficiency standard if it meets that standard when tested in accordance with testing procedures established by CSA C657, Test Procedure A, that are applicable to a *commercial refrigerator* as defined in section 636.

TABLE

Item	Column 1 Energy-using Product	Column 2 Energy Efficiency Standard	Column 3 Period of Manufacture
1	Commercial refrigerators that are not transparent	$E_{\text{daily}} \leq 0.00441 V + 4.22$	On or after April 1, 2007 and before January 1, 2008
2	Commercial refrigerators that are not transparent	$E_{\text{daily}} \leq 0.00441 V + 2.76$	On or after January 1, 2008 and before January 1, 2010
3	Commercial refrigerators that are not transparent	$E_{\text{daily}} \leq 0.00353 V + 2.04$	On or after January 1, 2010 and before January 1, 2012
4	Commercial refrigerators that are transparent	$E_{\text{daily}} \leq 0.00607 V + 5.78$	On or after April 1, 2007 and before January 1, 2008
5	Commercial refrigerators that are transparent	$E_{\text{daily}} \leq 0.00607 V + 4.77$	On or after January 1, 2008 and before January 1, 2010
6	Commercial refrigerators that are transparent and that do not have pull-down temperature reduction capability	$E_{\text{daily}} \leq 0.00424 V + 3.34$	On or after January 1, 2010 and before January 1, 2012
7	Commercial refrigerators that are transparent and that have pull-down temperature reduction capability	$E_{\text{daily}} \leq 0.00445 V + 3.51$	On or after January 1, 2010 and before January 1, 2012
8	Commercial refrigerators	CSA C657, Table 5	On or after January 1, 2012

Information

639 For the purpose of subsection 5(1) of the Act, the following information must be collected in accordance with CSA C657, Test Procedure A, and provided to the Minister in respect of a commercial refrigerator:

- (a) its E_{daily} ;
- (b) for each of its compartments,
 - (i) its equipment class designation and its TDA or V, as applicable, and
 - (ii) if it is tested at its lowest temperature setting, the integrated average temperature, expressed in degrees Celsius, at the lowest temperature setting.

Commercial Refrigerator-Freezers

Energy-using product

640 (1) A commercial refrigerator-freezer is prescribed as an energy-using product.

Limits

(2) However, a commercial refrigerator-freezer is not considered to be an energy-using product

- (a) for the purposes of sections 4 and 5, unless
 - (i) it is closed and is manufactured on or after April 1, 2007, or
 - (ii) it is open and is manufactured on or after January 1, 2012; and
- (b) for the purpose of section 641, unless
 - (i) it is closed and not transparent and is manufactured on or after April 1, 2007, or
 - (ii) it is open, or is closed and transparent, and is manufactured on or after January 1, 2012.

Energy efficiency standards

641 (1) The energy efficiency standards set out in column 2 of the table to this section apply to commercial refrigerator-freezers described in column 1 that are manufactured during the periods set out in column 3.

Testing standard

(2) A commercial refrigerator-freezer complies with the energy efficiency standard if it meets that standard when tested in accordance with testing procedures established by CSA C657, Test Procedure A, that are applicable to a *commercial refrigerator-freezer* as defined in section 636.

TABLE

	Column 1	Column 2	Column 3
Item	Energy-using Product	Energy Efficiency Standard	Period of Manufacture
1	Commercial refrigerator-freezers that are closed and not transparent	$E_{\text{daily}} \leq 0.00964 AV + 2.63$	On or after April 1, 2007 until December 31, 2007
2	Commercial refrigerator-freezers that are closed and not transparent	$E_{\text{daily}} \leq 0.00964 AV + 1.65$	On or after January 1, 2008 until December 31, 2009

3	Commercial refrigerator-freezers that are closed and not transparent	$E_{\text{daily}} \leq$ the greater of (0.00953 AV – 0.71) and 0.70	On or after January 1, 2010
4	Commercial refrigerator-freezers that are open or that are closed and transparent	CSA C657, Table 5	On or after January 1, 2012

Information

642 For the purpose of subsection 5(1) of the Act, the information set out in column 2 of the table to this section must be collected in accordance with CSA C657, Test Procedure A, and provided to the Minister in respect of a commercial refrigerator-freezer described in column 1.

TABLE

Item	Column 1 Energy-using Product	Column 2 Information
1	Commercial refrigerator-freezers that are closed, not transparent and manufactured on or after April 1, 2007	(a) E_{daily} ; (b) AV; and (c) for each compartment tested at the lowest temperature setting, the integrated average temperature, expressed in degrees Celsius, at the lowest temperature setting.
2	Commercial refrigerator-freezers that are closed, transparent and manufactured on or after April 1, 2007 and before January 1, 2012	(a) E_{daily} ; (b) AV; and (c) for each compartment tested at the lowest temperature setting, the integrated average temperature, expressed in degrees Celsius, at the lowest temperature setting.
3	Commercial refrigerator-freezers that are open or that are closed and transparent, and manufactured on or after January 1, 2012	(a) E_{daily} ; (b) for each of compartment tested at the lowest temperature setting, the integrated average temperature, expressed in degrees Celsius, at the lowest temperature setting; and (c) for each compartment, its equipment class designation and TDA.

Commercial Freezers

Energy-using product

643 (1) A commercial freezer is prescribed as an energy-using product.

Limits

(2) However, a commercial freezer is not considered to be an energy-using product

- (a) for the purposes of sections 4 and 5, unless it is manufactured on or after April 1, 2007; and
 (b) for the purpose of section 644, unless

- (i) it is closed and was manufactured on or after April 1, 2007 and before January 1, 2012, or
 (ii) it is manufactured on or after January 1, 2012.

Energy efficiency standards

644 (1) The energy efficiency standards set out in column 2 of the table to this section apply to commercial freezers described in column 1 that are manufactured during the periods set out in column 3.

Testing standard

(2) A commercial freezer complies with the energy efficiency standard if it meets that standard when tested in accordance with testing procedures established by CSA C657, Test Procedure A, that are applicable to a *commercial freezer* as defined in section 636.

TABLE

Item	Column 1 Energy-using Product	Column 2 Energy Efficiency Standard	Column 3 Period of Manufacture
1	Commercial freezers that are closed, not transparent and have a volume of < 340 L	$E_{\text{daily}} \leq 7.62$	On or after April 1, 2007 and before January 1, 2008
2	Commercial freezers that are closed, not transparent and have a volume of < 340 L	$E_{\text{daily}} \leq 7.07$	On or after January 1, 2008 and before January 1, 2010
3	Commercial freezers that are closed, not transparent and have a volume of ≥ 340 L	$E_{\text{daily}} \leq 0.0141 V + 2.83$	On or after April 1, 2007 and before January 1, 2008
4	Commercial freezers that are closed, not transparent and have a volume of ≥ 340 L	$E_{\text{daily}} \leq 0.0141 V + 2.28$	On or after January 1, 2008 and before January 1, 2010
5	Commercial freezers that are closed and not transparent	$E_{\text{daily}} \leq 0.01413 V + 1.38$	On or after January 1, 2010 and before January 1, 2012
6	Commercial freezers that are closed and transparent	$E_{\text{daily}} \leq 0.0332 V + 5.10$	On or after April 1, 2007 and before January 1, 2010
7	Commercial freezers that are closed and transparent	$E_{\text{daily}} \leq 0.02649 V + 4.10$	On or after January 1, 2010 and before January 1, 2012
8	Commercial freezers	CSA C657, Table 5	On or after January 1, 2012

Information

645 For the purpose of subsection 5(1) of the Act, the following information must be collected in accordance CSA C657, Test Procedure A, and provided to the Minister in respect of a commercial freezer:

- (a) its E_{daily} ; and
- (b) for each of its compartments,
 - (i) its equipment class designation and its TDA or V, as applicable, and
 - (ii) if it is tested at its lowest temperature setting, the integrated average temperature, expressed in degrees Celsius, at the lowest temperature setting.

SUBDIVISION B

Refrigerated Vending Machines

Definitions

646 The following definitions apply in this Subdivision.

ASHRAE 32.1 means the ASHRAE standard 32.1-2010 entitled *Methods of Testing for Rating Vending Machines for Bottled, Canned, and Other Sealed Beverages*. (ASHRAE 32.1)

refrigerated beverage vending machine means a self-contained product that is designed to accept consumer payments and dispense only bottled, canned or other sealed refrigerated beverages. (*distributeur automatique de boissons réfrigérées*)

snack and refrigerated beverage vending machine means a self-contained product that

- (a) is designed to accept consumer payments and dispense packages of solid non-refrigerated food and bottled, canned or other sealed refrigerated beverages; and
- (b) has a vendible capacity of not more than 100 of those beverages. (*distributeur automatique de boissons réfrigérées et de collations*)

standby mode means a mode into which the product automatically enters during a period of extended inactivity that is capable of reducing its energy consumption by means of the following power states:

- (a) a refrigeration power state in which the average temperature of the refrigerated beverages is allowed to rise to 4.4°C; and
- (b) if the product is equipped with lights,
 - (i) a lighting power state in which the lights are turned off, and
 - (ii) a machine power state in which the power states referred in paragraph (a) and subparagraph (i) are in operation at the same time. (*mode veille*)

V means, in respect of a refrigerated beverage vending machine, its volume, expressed in litres, calculated in accordance with Appendix C to ASHRAE 32.1. (V)

Refrigerated Beverage Vending Machines

Energy-using product

647 (1) A refrigerated beverage vending machine is prescribed as an energy-using product.

Limit

(2) However, for the purposes of sections 4, 5 and 648, a refrigerated beverage vending machine is not considered to be an energy-using product unless it is manufactured on or after January 1, 2007.

Energy efficiency standards

648 (1) The energy efficiency standards set out in column 2 of the table to this section apply to refrigerated beverage vending machines described in column 1 that are manufactured during the periods set out in column

3.

Testing standard

(2) The refrigerated beverage vending machine complies with the energy efficiency standard if it meets that standard when tested in accordance with testing procedures established by sections 1 to 7.2 of ASHRAE 32.1 that are applicable to a *refrigerated beverage vending machine* as defined in section 646, except that the ambient temperature during the testing to determine E_{daily} must be $23.9^{\circ}\text{C} \pm 1^{\circ}\text{C}$. However, if the product was manufactured before August 31, 2012 and it is not designed to display and dispense 20 or more discrete types of beverages, the ambient temperature during the testing to determine the E_{daily} must be $32.2^{\circ}\text{C} \pm 1^{\circ}\text{C}$.

TABLE

Item	Column 1 Energy-using Product	Column 2 Energy Efficiency Standard	Column 3 Period of Manufacture
1	Refrigerated beverage vending machines, other than those that display and dispense 20 or more discrete types of beverages	$E_{\text{daily}} \leq 55\% (8.66 + 0.009 \times \text{vendible capacity})$ Must be capable of operating in standby mode	On or after January 1, 2007 and before January 1, 2008
2	Refrigerated beverage vending machines, other than those that display and dispense 20 or more discrete types of beverages	$E_{\text{daily}} \leq 45\% (8.66 + 0.009 \times \text{vendible capacity})$ Must be capable of operating in standby mode	On or after January 1, 2008 and before August 31, 2012
3	Refrigerated beverage vending machines that display and dispense 20 or more discrete types of beverages	$E_{\text{daily}} \leq 55\% (8.66 + 0.009 \times \text{vendible capacity})$ Must be capable of operating in standby mode	On or after January 1, 2007 and before August 31, 2012
4	Refrigerated beverage vending machines that are fully cooled (Class A)	$E_{\text{daily}} \leq 0.00194 \times V + 2.56$ Must be capable of operating in standby mode	On or after August 31, 2012
5	Refrigerated beverage vending machines that are not fully cooled (Class B)	$E_{\text{daily}} \leq 0.00258 \times V + 3.16$ Must be capable of operating in standby mode	On or after August 31, 2012

Information

649 For the purpose of subsection 5(1) of the Act, the information set out in column 2 of the table to this section must be collected in accordance ASHRAE 32.1, with the testing procedure adjusted in accordance with subsection 648(2), and be provided to the Minister in respect of a refrigerated beverage vending machine described in column 1.

TABLE

Item	Column 1 Energy-using Product	Column 2 Information
1	Refrigerated beverage vending machines manufactured on or after January 1, 2007 and before August 31, 2012	(a) E_{daily} ; (b) vendible capacity; and (c) number of discrete types of beverages that it can display and dispense.
2	Refrigerated beverage vending machines manufactured on or after August 31, 2012	(a) E_{daily} ; (b) whether the product is fully cooled (Class A) or not fully cooled (Class B); and (c) V.

Snack and Refrigerated Beverage Vending Machines

Energy-using product

650 (1) A snack and refrigerated beverage vending machine is prescribed as an energy-using product.

Limit

(2) However, for the purposes of sections 4, 5 and 651, a snack and refrigerated beverage vending machine is not considered to be an energy-using product unless it is manufactured on or after January 1, 2007.

Energy efficiency standards

651 (1) The following energy efficiency standards apply to a snack and refrigerated beverage vending machine:

- (a)** its E_{daily} must be less than or equal to 55% ($8.66 + 0.009 \times \text{vendible capacity}$); and
- (b)** it must be capable of operating in standby mode.

Testing standard

(2) A snack and refrigerated beverage vending machine complies with the energy efficiency standard if it meets that standard when tested in accordance with testing procedures established by sections 1 to 7.2 of ASHRAE 32.1 that are applicable to a *snack and refrigerated beverage vending machine* as defined in section 646, except that the ambient temperature during the testing to determine E_{daily} must be $23.9^{\circ}\text{C} \pm 1^{\circ}\text{C}$.

Information

652 For the purpose of subsection 5(1) of the Act, the following information must be collected in accordance with ASHRAE 32.1, with the testing procedures adjusted in accordance with subsection 651(2), and be provided to the Minister in respect of a snack and refrigerated beverage vending machine:

- (a)** its E_{daily} ; and

(b) its vendible capacity.

SUBDIVISION C

Ice-Makers

Definitions

653 The following definitions apply in this Subdivision.

CSA C742-08 means the CSA standard CAN/CSA-C742-08 entitled *Energy Performance of Automatic Ice-makers and Ice Storage Bins. (CSA C742-08)*

CSA C742-15 means the CSA standard CAN/CSA-C742-15 entitled *Energy Performance of Automatic Ice-makers and Ice Storage Bins. (CSA C742-15)*

CSA C742-98 means the CSA standard CAN/CSA-C742-98 entitled *Performance of Automatic Ice-Makers and Ice Storage Bins. (CSA C742-98)*

ice-maker means a factory-assembled automatic ice-maker that has a capacity of at least 23 kg/day (51 pounds per day) but not more than 1 814 kg/day (4,000 pounds per day) and that produces cubed, flaked, crushed or fragmented ice in either a batch or a continuous process. (*machine à glaçons*)

Energy-using product

654 (1) An ice-maker is prescribed as an energy-using product.

Limit

(2) However, for the purposes of sections 4, 5 and 655, an ice-maker is not considered to be an energy-using product unless

(a) it is manufactured on or after December 31, 1998 and before January 28, 2018 and has a capacity of not more than 1 000 kg/day (2,200 pounds per day); or

(b) it is manufactured on or after January 28, 2018 and has a capacity of not more than 1 814 kg/day (4,000 pounds per day).

Energy efficiency standards

655 (1) The energy efficiency standards set out in column 3 of the table to this section apply to ice-makers described in column 1 that are manufactured during the periods set out in column 4.

Testing standard

(2) An ice-maker complies with the energy efficiency standard if it meets that standard when tested in accordance with testing procedures established by the standard set out in column 2 that are applicable to an *ice-maker* as defined in section 653.

TABLE

Item	Column 1 Energy-using Product	Column 2 Standard	Column 3 Energy Efficiency Standard	Column 4 Period of Manufacture
1	Ice-makers that have a capacity of \geq 23 kg/day (51 lbs/day) but \leq 1 000 kg/day (2,200 lbs/day)	CSA C742-98	CSA C742-98, Table 2	On or after December 31, 1998 and before January 1, 2008

2	Ice-makers that have a capacity of ≥ 23 kg/day (51 lbs/day) but $\leq 1\ 000$ kg/day (2,200 lbs/day) and that produce ice in a continuous process	CSA C742-98	CSA C742-98, Table 2, categories "Continuous automatic ice-makers" and "Ice storage bins"	On or after January 1, 2008 and before January 28, 2018
3	Ice-makers that have a capacity of ≥ 23 kg/day (51 lbs/day) but $\leq 1\ 000$ kg/day (2,200 lbs/day) and that produce ice in a batch process	CSA C742-08	CSA C742-08, Tables 2 and 3	On or after January 1, 2008 and before January 28, 2018
4	Ice-makers	CSA C742-15	CSA C742-15, Tables 3 and 4	On or after January 28, 2018

Information

656 For the purpose of subsection 5(1) of the Act, the information set out in column 3 of the table to this section must be collected in accordance with the standard set out in column 2 and provided to the Minister in respect of an ice-maker described in column 1.

TABLE

Item	Column 1 Energy-using Product	Column 2 Standard	Column 3 Information
1	Ice-makers manufactured on or after December 31, 1998 and before January 1, 2008	CSA C742-98	<p>(a) ice-making capacity, in kg/day;</p> <p>(b) configuration of product, namely, one cabinet or split system;</p> <p>(c) ice-making process, namely batch process or continuous process;</p> <p>(d) condensing unit type, namely, air-cooled or water-cooled; and</p> <p>(e) input energy rating, in kJ/kg (kWh/100 lbs) of ice.</p>
2	Ice-makers manufactured on or after January 1, 2008 and before January 28, 2018	<p>CSA C742-98 for ice-makers that produce ice in a continuous process</p> <p>CSA C742-08 for ice-makers that produce ice in a batch process</p>	<p>(a) ice-making capacity, in kg/day;</p> <p>(b) configuration of product, namely,</p> <p>(i) ice-making mechanism and condenser are combined in single package,</p> <p>(ii) self-contained,</p> <p>(iii) remote condenser but no remote compressor, or</p>

(iv) remote condenser and remote compressor;

(c) ice-making process, namely, batch process or continuous process;

(d) condensing unit type, namely, air-cooled or water-cooled;

(e) the input energy rating, in kJ/kg (kWh/100 lbs) of ice; and

(f) if product has an ice storage bin, the bin capacity, in kg, and its storage effectiveness, as a percentage.

3 Ice-makers manufactured on or after January 28, 2018 CSA C742-15

(a) ice-making capacity, in kg/day;

(b) configuration of product, namely,

(i) ice-making mechanism and condenser are combined in single package,

(ii) self-contained,

(iii) remote condenser but no remote compressor, or

(iv) remote condenser and remote compressor;

(c) ice-making process, namely, batch process or continuous process;

(d) condensing unit type, namely, air-cooled or water-cooled;

(e) the input energy rating, in kJ/kg (kWh/100 lbs) of ice; and

(f) if product has an ice storage bin, the bin capacity, in kg, and its storage effectiveness, as a percentage.

[657 to 702 reserved]

DIVISION 11

Dry-type Transformers

Definitions

703 The following definitions apply in this Division.

CSA C802.2 means the CSA standard CAN/CSA- C802.2-00 entitled *Minimum Efficiency Values for Dry-Type Transformers*. (CSA C802.2)

CSA C802.2-12 means the CSA standard CAN/CSA-C802.2-12 entitled *Minimum Efficiency Values for Dry-Type Transformers*. (CSA C802.2-12)

dry-type transformer means a transformer whose core and windings are in a gaseous or dry compound insulating medium and that is either single-phase with a nominal power of 15 to 833 kVA or three-phase with a nominal power of 15 to 7 500 kVA, has a nominal frequency of 60 Hz and has a high voltage winding of 35 kV or less. It does not include any of the following:

- (a) an autotransformer;
- (b) a drive (isolation) transformer that has two or more output windings or a nominal low-voltage line current of more than 1 500 A;
- (c) a grounding transformer;
- (d) a rectifier transformer;
- (e) a sealed transformer;
- (f) a non-ventilated transformer;
- (g) a testing transformer;
- (h) a furnace transformer;
- (i) a welding transformer;
- (j) a special impedance transformer;
- (k) a transformer that has a nominal low-voltage line current of 4 000 A or more;
- (l) an on-load regulating transformer;
- (m) a resistance grounding transformer; or
- (n) a transformer that is in a voltage class greater than 1.2 kV and that has a BIL of less than 20 kV or more than 199 kV. (*transformateur à sec*)

transformer means a static-electric device that consists of two or more coils of insulated wire, together with the necessary accessories, and that transfers alternating current by electromagnetic induction from one coil to another to change the original voltage. (*transformateur*)

Energy-using product

704 (1) A dry-type transformer is prescribed as an energy-using product.

Limits

(2) However, a dry-type transformer is not considered to be an energy-using product

- (a) for the purposes of sections 4 and 5, if it was manufactured before January 1, 2005; and
- (b) for the purpose of section 705, if it has a BIL of more than 150 kV and was manufactured before January 1, 2010.

Energy efficiency standards

705 (1) The energy efficiency standards set out in column 2 of the table to this section apply to dry-type transformers that are manufactured during the periods set out in column 3.

Testing standard

(2) A dry-type transformer complies with the energy efficiency standard if it meets that standard when tested in accordance with testing procedures established by the standard referred to in column 1 that are applicable to a *dry-type transformer* as defined in section 703.

TABLE

	Column 1	Column 2	Column 3
Item	Standard	Energy Efficiency Standard	Period of Manufacture
1	CSA C802.2	CSA C802.2, Table 1	On or after January 1, 2005 and before January 1, 2010

Information

706 For the purpose of subsection 5(1) of the Act, the following information must be collected in accordance with CSA C802.2-12 and provided to the Minister in respect of a dry-type transformer:

- (a) if applicable, identification of the transformer as being in the 1.2 kV voltage class;
- (b) its BIL rating;
- (c) if applicable, identification of the transformer as being a transformer described in clause 8(b) of CSA C802.2-12;
- (d) its kVA rating;
- (e) its phase, namely single-phase or three-phase;
- (f) the tested efficiency, expressed as a percentage;
- (g) the loss, expressed in watts, when it is under load and when it is not under load; and
- (h) if it is manufactured on or after January 1, 2010, the percentage of impedance.

[707 to 748 reserved]

DIVISION 12

Motors

Definitions

749 The following definitions apply in this Division.

CSA C390-10 means the CSA standard CSA C390-10 entitled *Test Methods, Marking Requirements, and Energy Efficiency Levels for Three-phase Induction Motors. (CSA C390-10)*

explosion-proof motor means a motor

- (a) in respect of which measures have been taken to prevent excessive temperatures and the production of arcs or sparks by the motor; or
- (b) that is encased in an enclosure that can withstand the explosion of any flammable gas or vapour that might enter it, without being damaged and without transmitting the explosion to the outside. (*moteur antidéflagrant*)

footless means, in respect of a motor, that it does not have feet or detachable feet or that it is not designed to receive detachable feet. (*sans pied*)

IEC 60034-5 means the IEC standard CEI/IEC 60034-5: 2006 entitled *Rotating electrical machines - Part 5: Degrees of protection provided by the integral design of rotating electric machines (IP code) - Classification. (CEI 60034-5)*

IEC 60529 means the IEC standard CEI/IEC 60529: 2013 entitled *Degrees of Protection Provided by Enclosures (IP Code). (CEI 60529)*

IEEE 112-2004 means the IEEE standard IEEE 112-2004 entitled *Standard Test Procedure for Polyphase Induction Motors and Generators. (IEEE 112-2004)*

integral gear assembly means a product that consists of a motor and a gear mechanism that are combined in such a manner that

- (a) the end bracket or mounting flange forms an integral part of both the motor and the gear mechanism; and
- (b) if the motor and the gear mechanism are separated, only one of them remains intact. (*assemblage d'engrenages intégrés*)

IP code means the classification of the degree of protection provided by an enclosure, as set out in IEC 60034-5, IEC 60529 or NEMA MG-1. (*code IP*)

motor means a machine that converts electrical power into rotational mechanical power and that

- (a) is an electric three-phase induction design;
- (b) is a NEMA design A, B or C with NEMA T or U frame dimensions and a three- or four-digit NEMA frame number;
- (c) is an enclosed NEMA design with a NEMA frame number of 56;
- (d) is an IEC design N or H with an IEC frame number of 80 or above;
- (e) has a nominal output power of not less than 0.75 kW (1 horsepower) and not more than 375 kW (500 horsepower);
- (f) has a cage or squirrel-cage design;
- (g) is rated for continuous duty or S1 operation;
- (h) is designed to operate at a single speed;
- (i) has a nominal voltage of not more than 600 V AC;
- (j) has a nominal frequency of 50/60 Hz or 60 Hz;
- (k) has a two-, four-, six- or eight-pole construction;
- (l) has an open or enclosed construction; or
- (m) has an IP code from 00 to 67.

It does not include any of the following:

- (n) a motor that has a nominal output power of more than 150 kW (200 horsepower) and that is a NEMA design C motor or an IEC design H motor.
- (o) an air-over electric motor;
- (p) a liquid-cooled motor; or
- (q) an inverter-only motor. (*moteur*)

NEMA MG-1 means the NEMA standard MG 1-2014 entitled *NEMA Standards Publication No. MG 1-2014 Motors and Generators*. (*NEMA MG-1*)

Energy-using product

750 (1) A motor is prescribed as an energy-using product.

Limits

(2) However, for the purposes of sections 4, 5, 751 and 752, a motor is not considered to be an energy-using product

- (a) if it was manufactured before February 3, 1995;
- (b) if it was manufactured before November 27, 1999 and is an explosion-proof motor or a motor that is part of an integral gear assembly;
- (c) if it was manufactured before January 1, 2011 and it
 - (i) has an eight-pole construction,
 - (ii) has NEMA U frame dimensions,
 - (iii) is a NEMA design C or an IEC design H,
 - (iv) is a close-coupled pump motor,
 - (v) is a vertically mounted solid shaft normal thrust motor,
 - (vi) is a fire pump motor or other NEMA design B motor with a nominal output power of more than 150 kW (200 horsepower) or is an IEC design N motor with a nominal output power of more than 150 kW (200 horsepower), or
 - (vii) is footless; or
- (d) if it was manufactured before January 1, 2016 and it
 - (i) is a NEMA design A with an output power of more than 150 kW (200 horsepower),
 - (ii) is an enclosed NEMA design with a NEMA frame number of 56,
 - (iii) has windings that are moisture-resistant, sealed or encapsulated,
 - (iv) is a partial electric motor, an immersible motor, a brake motor or a vertical hollow shaft

- motor,
- (v) is totally enclosed and non-ventilated,
- (vi) has a separately powered blower,
- (vii) has a base, end shields or flanges that are not within the dimensions specified in NEMA MG-1,
- (viii) has a NEMA shaft that is not a standard shaft, R-shaft or S-shaft, as specified in NEMA MG-1, or
- (ix) has sleeve or thrust bearings.

Energy efficiency standards

751 (1) The energy efficiency standards set out in column 3 of the table to this section apply to motors described in column 1 that are manufactured during the periods set out in column 4.

Testing standard

(2) A motor complies with the energy efficiency standard if it meets the standard when tested at 100% of its nominal full load in accordance with the testing procedures established by the standard set out in column 2 that are applicable to a *motor* as defined in section 749.

TABLE

Item	Column 1 Energy-using Product	Column 2 Standard	Column 3 Energy Efficiency Standard	Column 4 Period of Manufacture
1	A fire pump motor	CSA C390-10	CSA C390-10, Table 2	On or after February 3, 1995
2	A motor that is part of an integral gear assembly	CSA C390-10	CSA C390-10, Table 2	On or after November 27, 1999 and before June 1, 2016
3	A close-coupled pump motor	CSA C390-10	CSA C390-10, Table 2	On or after January 1, 2015 and before June 1, 2016
4	A vertically-mounted solid shaft normal thrust motor	CSA C390-10	CSA C390-10, Table 2	On or after January 1, 2011 and before June 1, 2016
5	A motor that <ul style="list-style-type: none"> (a) has an eight-pole construction; (b) has NEMA U frame dimensions; (c) is a NEMA design C or an IEC design H; (d) has a nominal output 	CSA C390-10	CSA C390-10, Table 2	On or after January 1, 2011 and before June 1, 2016

power of more than 150 kW (200 HP) and is a NEMA design B or an IEC design N ; or
(e) is footless.

6	A motor other than a motor described in items 1 to 5	CSA C390-10	CSA C390-10, Table 3	On or after February 3, 1995 and before June 1, 2016
7	A motor other than a fire pump motors	CSA C390-10 or IEEE 112-2004	NEMA MG-1, Table 12-12	On or after June 1, 2016

Information

752 For the purpose of subsection 5(1) of the Act, the following information must be provided to the Minister:

(a) in respect of a motor for which a unique motor identifier was not provided under paragraph 5(1)(c),

(i) its nominal power, expressed in kilowatts for an IEC-design motor or in horsepower for a NEMA-design motor,

(ii) the number of poles, and

(iii) the construction of the product, namely, open construction or closed construction; and

(b) in respect of a motor described in column 1 of the table to this section, the information set out in column 3, which must be collected in accordance with the standard set out in column 2.

TABLE

Item	Column 1 Energy-using Product	Column 2 Standard	Column 3 Information
1	Motors manufactured on or after February 3, 1995 and before June 1, 2016	CSA C390-10	(a) nominal efficiency value; (b) NEMA or IEC design of motor; (c) frame type; (d) motor configuration, namely, close-coupled pump motor, vertically mounted solid shaft normal thrust motor, fire pump motor or motor that is part of an integral gear assembly; (e) shaft type; (f) mounting type; and (g) motor configuration, namely, footless, with feet or with detachable feet.
2	Motors manufactured on or after June 1, 2016	CSA C390-10 or IEEE112-2004	(a) nominal efficiency value; (b) NEMA or IEC design of motor; (c) frame type; and (d) motor configuration, namely, fire pump motor or another configuration.

[753 to 795 reserved]

Repeal

796 The *Energy Efficiency Regulations* (see footnote 69) are repealed.

Coming into Force

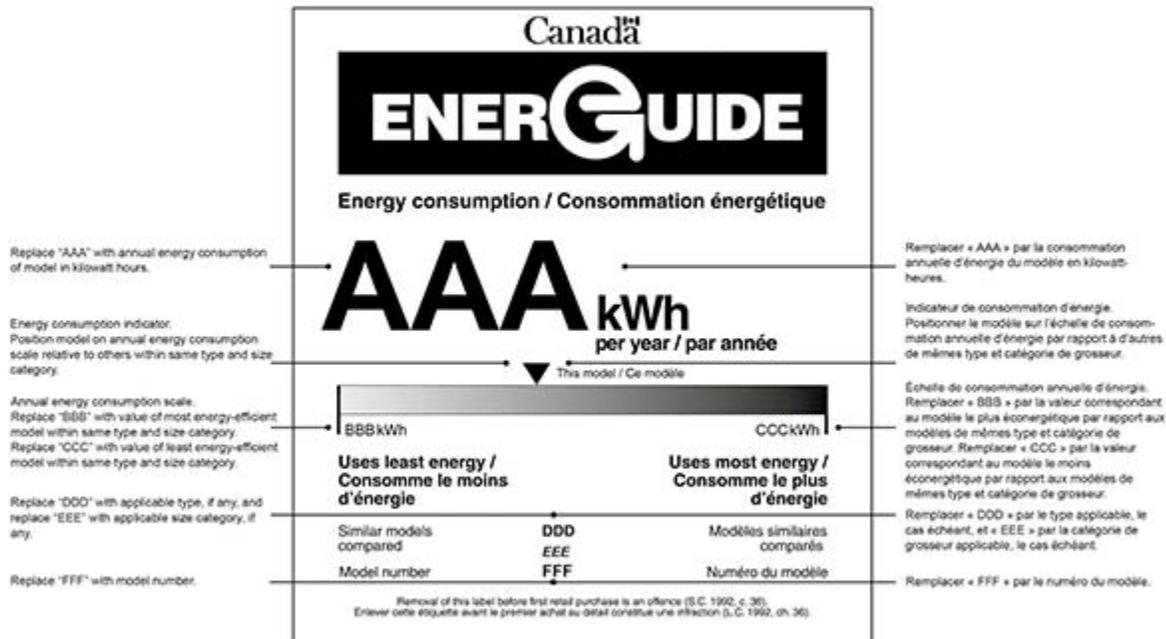
Six months after publication

797 These Regulations come into force six months after the day on which they are published in the *Canada Gazette*, Part II.

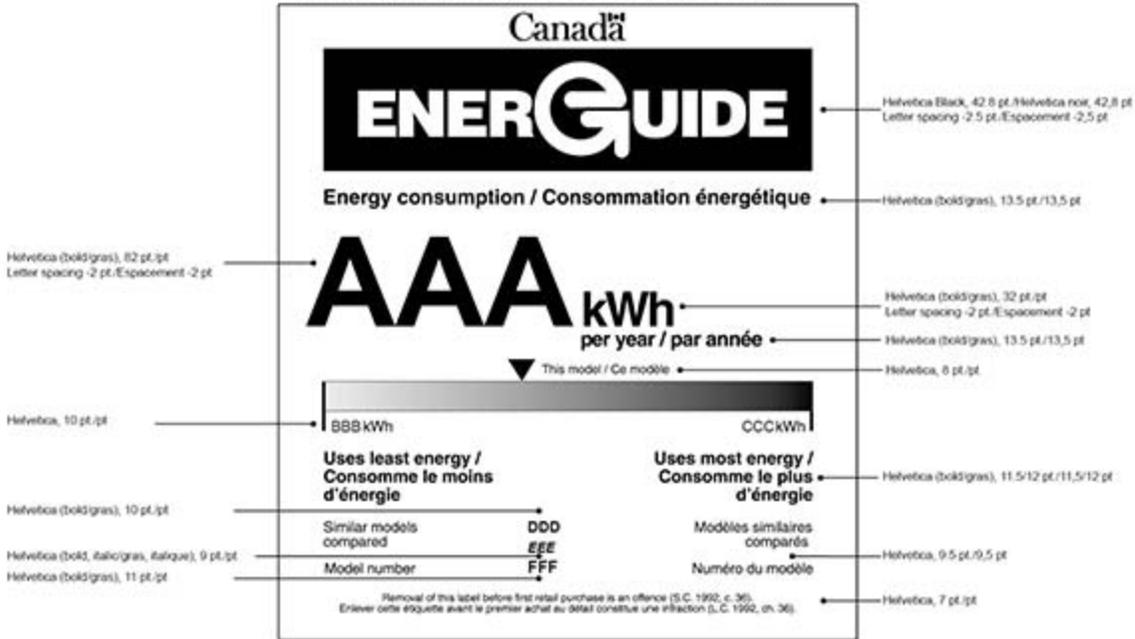
SCHEDULE 1

(Subsection 13(1) and section 35)

Explanation for Elements on Household Appliance Energy Efficiency Label



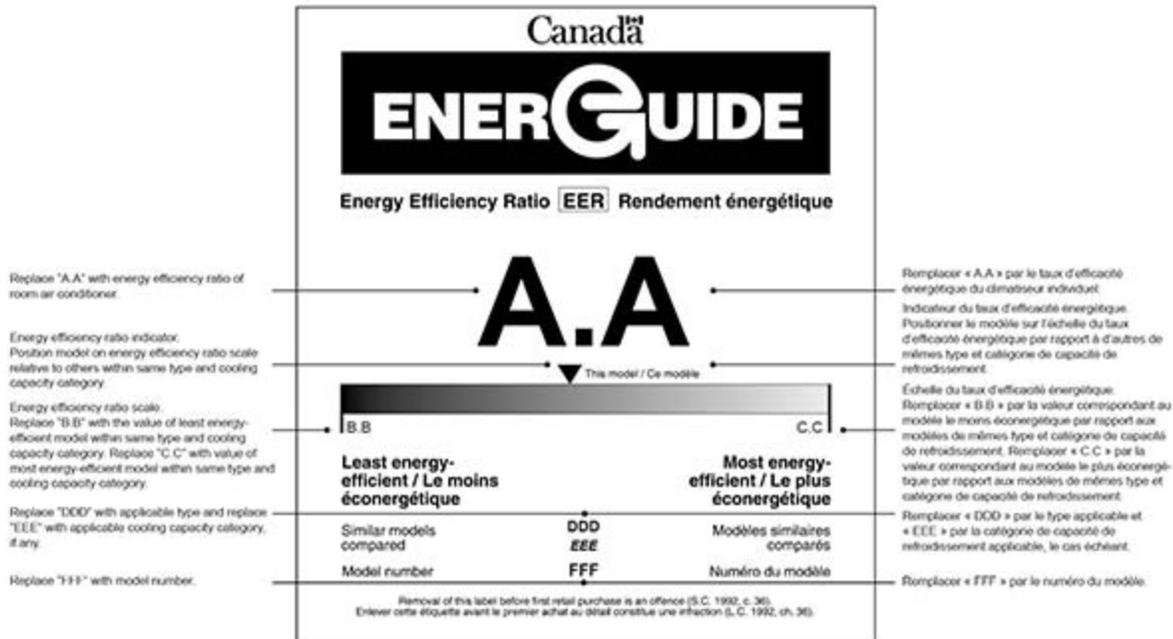
Label size/Taille de l'étiquette : 13.49 cm x 14.76 cm / 13.49 cm x 14.76 cm
 Colour: black and white (as shown)/Couleur : noir et blanc (voir ci-dessous)



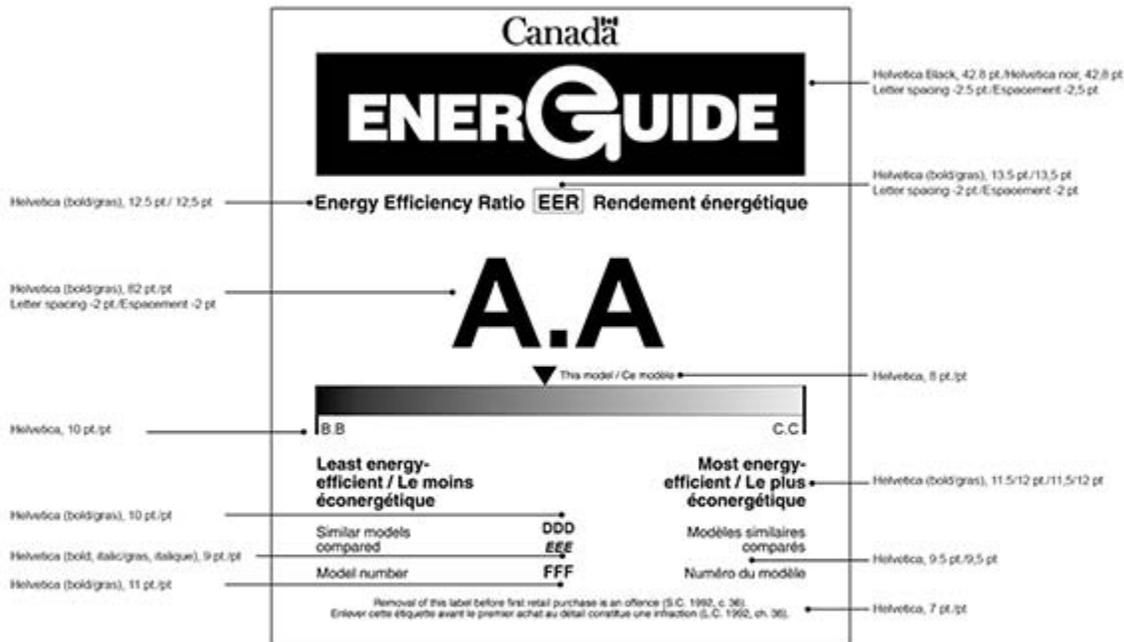
SCHEDULE 2

(Paragraph 114(a))

Explanation for Elements on Room Air Conditioner Energy Efficiency Label



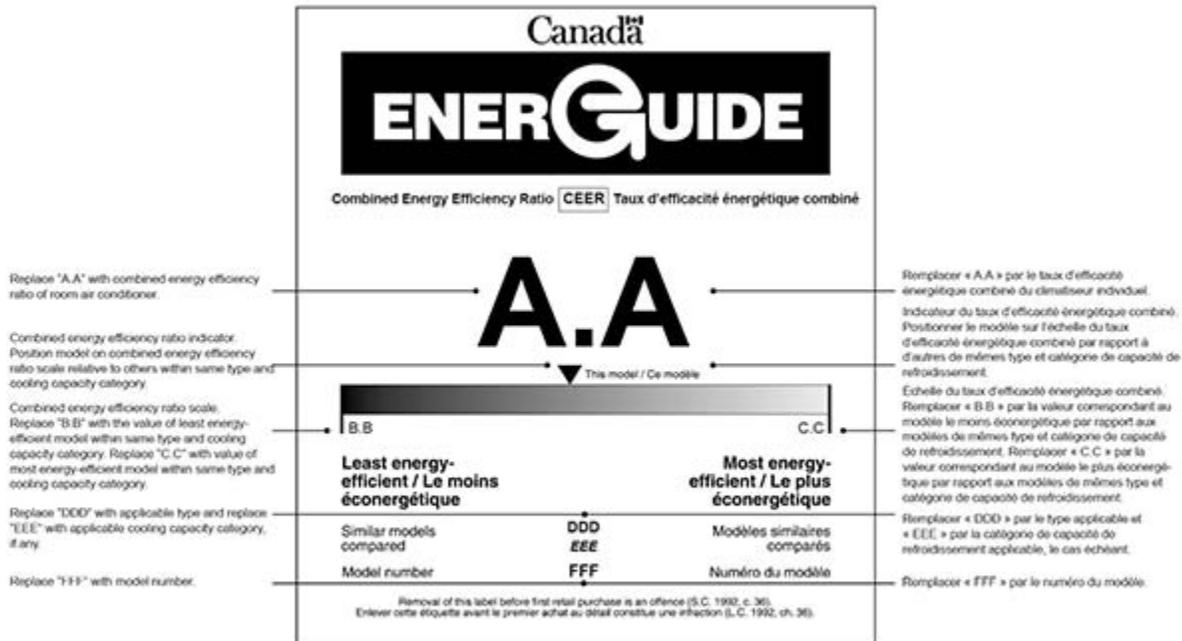
Label size/Taille de l'étiquette : 13.49 cm x 14.76 cm / 13.49 cm x 14.76 cm
Colour: black and white (as shown)/Couleur : noir et blanc (voir ci-dessous)



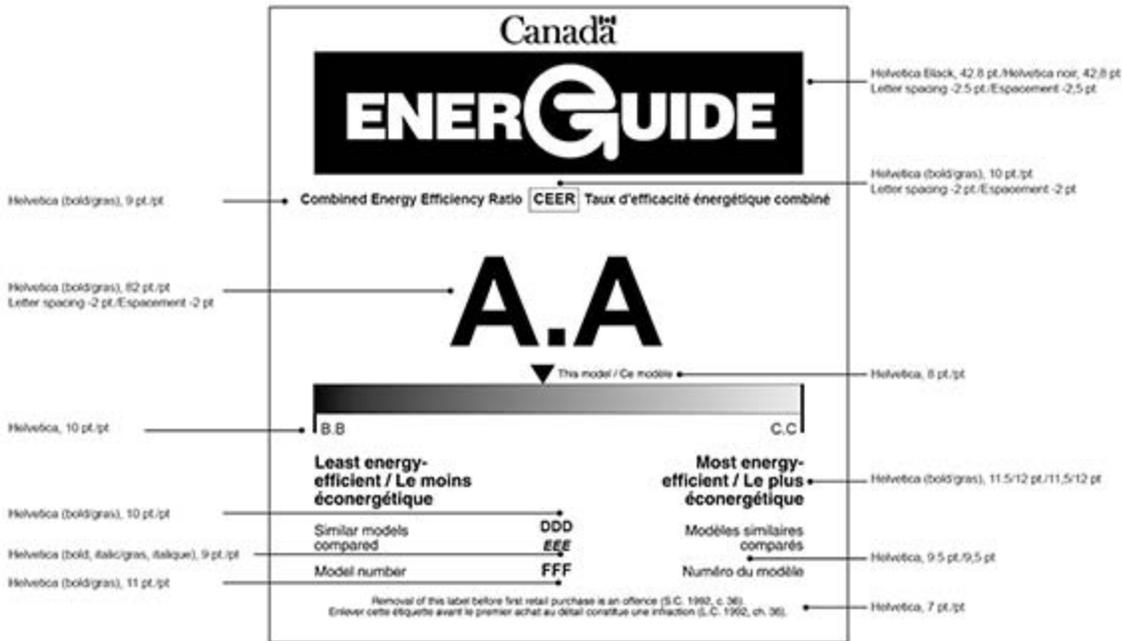
SCHEDULE 3

(Paragraph 114(b))

Explanation for Elements on Room Air Conditioner Energy Efficiency Label



Label size/Taille de l'étiquette : 13.49 cm x 14.76 cm / 13.49 cm x 14.76 cm
Colour: black and white (as shown)/Couleur : noir et blanc (voir ci-dessous)



[18-1-0]

[Footnote 1](#)

The use of the term “minimum energy performance standard” or MEPS throughout this document is in reference to the “energy efficiency standard” as defined in the *Energy Efficiency Act*.

[Footnote 2](#)

New products are those that have not previously been required to comply with MEPS under the Regulations.

[Footnote 3](#)

International Energy Agency, 2015. *Achievements of appliance energy efficiency standards and labelling programs: A GLOBAL ASSESSMENT*, p. 2.

[Footnote 4](#)

<http://www.tbs-sct.gc.ca/ip-pi/trans/ar-lr/rcc-ccmr/cjfp-rppc-eng.asp>

[Footnote 5](#)

Total end use sector GHG emissions are those resulting from on-site fuel combustion (e.g. in a gas-fired storage water heater) or the production of electricity consumed. It excludes GHG emissions from fugitive emissions, industrial processes and non-energy use.

[Footnote 6](#)

<http://oe.nrcan.gc.ca/corporate/statistics/neud/dpa/showTable.cfm?type=AN§or=aaa&juris=00&rn=1&page=0>

[Footnote 7](#)

<http://www.tbs-sct.gc.ca/ip-pi/trans/ar-lr/rcc-ccmr/japrc-pacc-eng.asp>

[Footnote 8](#)

For certain products, the same product model is tested differently to comply with Canadian and U.S. regulations.

[Footnote 9](#)

<https://www.liberal.ca/files/2015/10/A-new-plan-for-a-strong-middle-class.pdf>

[Footnote 10](#)

<http://pm.gc.ca/eng/minister-natural-resources-mandate-letter>

[Footnote 11](#)

Obsolete standards are those that are no longer used by regulatees in order to demonstrate compliance. They provide information (e.g. definitions, testing requirements) that are no longer relevant to energy-using products being imported into Canada or shipped between provinces. For example, the Regulations reference the standard CAN/CSA-C300-M91, entitled *Capacity Measurement and Energy Consumption Test Methods for Refrigerators, Combination Refrigerator-Freezers, and Freezers*. That standard currently applies to refrigerators or combination refrigerator-freezers that were manufactured before July 1, 2001. Since no such products are being imported into Canada, this standard is considered obsolete, and the proposed Regulations would remove any reference to it.

[Footnote 12](#)

The use of the term “commercial clothes washer” throughout this document is in reference to clothes washers other than household clothes washers, as defined in the Regulations.

[Footnote 13](#)

Clothes dryers would use the metric *combined energy factor*; clothes washers would use the metric *integrated modified energy factor*.

[Footnote 14](#)

Appendix D2, chapter II, part 430, subpart B, of the U.S. Code of Federal Regulations.

[Footnote 15](#)

http://www1.eere.energy.gov/buildings/appliance_standards/product.aspx/productid/67

[Footnote 16](#)

http://www1.eere.energy.gov/buildings/appliance_standards/product.aspx/productid/43

[Footnote 17](#)

http://www1.eere.energy.gov/buildings/appliance_standards/product.aspx/productid/36

[Footnote 18](#)

http://www1.eere.energy.gov/buildings/appliance_standards/product.aspx/productid/39

[Footnote 19](#)

http://www1.eere.energy.gov/buildings/appliance_standards/product.aspx/productid/46

[Footnote 20](#)

The proposed Regulations would prescribe higher MEPS for central air conditioners and heat pumps for a period to start on January 1, 2017, while the U.S. rule came into effect on January 1, 2015. The rationale for this difference is that a U.S. rule affecting three-phase product models within this category does not come into effect until January 1, 2017. Since Canada regulates single-phase and three-phase product models under the same category, the later date was selected, even though the rules for single-phase products came into effect in the United States on January 1, 2015.

[Footnote 21](#)

https://www1.eere.energy.gov/buildings/appliance_standards/product.aspx/productid/75

[Footnote 22](#)

ASHRAE 90.1-2007 Addendum M (2007). <https://www.ashrae.org/standards-research-technology/standards-addenda>.

[Footnote 23](#)

https://www1.eere.energy.gov/buildings/appliance_standards/product.aspx/productid/52

[Footnote 24](#)

https://www1.eere.energy.gov/buildings/appliance_standards/product.aspx/productid/50

[Footnote 25](#)

http://www1.eere.energy.gov/buildings/appliance_standards/product.aspx/productid/70

[Footnote 26](#)

http://www1.eere.energy.gov/buildings/appliance_standards/product.aspx/productid/62

[Footnote 27](#)

http://www1.eere.energy.gov/buildings/appliance_standards/product.aspx/productid/58

[Footnote 28](#)

https://www1.eere.energy.gov/buildings/appliance_standards/product.aspx/productid/21

[Footnote 29](#)

http://www1.eere.energy.gov/buildings/appliance_standards/product.aspx/productid/45

[Footnote 30](#)

https://www1.eere.energy.gov/buildings/appliance_standards/product.aspx/productid/24

[Footnote 31](#)

https://www1.eere.energy.gov/buildings/appliance_standards/product.aspx/productid/41

[Footnote 32](#)

<http://www.gpo.gov/fdsys/pkg/FR-2015-11-02/html/2015-27772.htm>

[Footnote 33](#)

Average volume is less than or equal to 208 litres; large volume is greater than 208 litres.

[Footnote 34](#)

https://www1.eere.energy.gov/buildings/appliance_standards/product.aspx/productid/27

[Footnote 35](#)

https://www1.eere.energy.gov/buildings/appliance_standards/product.aspx/productid/27

[Footnote 36](#)

http://www1.eere.energy.gov/buildings/appliance_standards/product.aspx/productid/23

[Footnote 37](#)

Residential gas furnaces have been required to meet an annual fuel utilization efficiency of 90% since December 31, 2009. Through-the-wall units were provided an additional three years to meet the standard. Manufacturers' efforts to develop products for the retrofit/replacement market that comply with the current requirements of 90% annual fuel utilization efficiency as of December 31, 2012, have been constrained due to the need to retrofit within an existing physical space.

[Footnote 38](#)

In accordance with the Regulations, a verification mark is issued by a certification body and signifies that a product model complies with the prescribed MEPS. Every energy-using product imported into Canada or shipped between provinces must be labelled with a verification mark.

[Footnote 39](#)

The Canadian Radio-Television and Telecommunications Commission required digital television transmission on August 31, 2011. http://www.crtc.gc.ca/eng/info_sht/bdt14.htm.

[Footnote 40](#)

For example, technical bulletins were published in 2010 and 2011, which clearly described the nature of regulatory changes being considered for eight of the products covered by the proposed Regulations, including the stringency of new MEPS and the timing being considered for their implementation. As well, Natural Resources Canada published forward regulatory plans in 2012, 2013 and 2014, outlining the product categories to be addressed by the proposed Regulations and the policy intent (e.g. to align with the United States). One manufacturer indicated that it had phased out an entire product line in Canada based on its understanding that new MEPS had come into effect at the same time as in the United States. This was signalled in a consultation bulletin but never implemented.

[Footnote 41](#)

IEA, 2015. *Achievements of appliance energy efficiency standards and labelling programs: A GLOBAL ASSESSMENT*, p. 3.

[Footnote 42](#)

Ibid. p. 1.

[Footnote 43](#)

Ibid. p. 3.

[Footnote 44](#)

Microwaves ovens, for example.

[Footnote 45](#)

Calculated as the value of avoided damages from GHG emissions reductions.

[Footnote 46](#)

For the purpose of this analysis, it is assumed that incremental costs for more efficient technology and compliance, as well as product development and production, are passed on to consumers or end users. This assumption simplifies the methodology since individual business decisions that affect actual product prices are unknown.

[Footnote 47](#)

Regulations Amending the Passenger Automobile and Light Truck Greenhouse Gas Emission Regulations (SOR/2014-207).

[Footnote 48](#)

Contact Environment Canada's Economic Analysis Directorate for any questions regarding methodology, rationale or policy.

[Footnote 49](#)

U.S. Government, U.S. Interagency Working Group on the Social Cost of Carbon (IWGSCC), 2010. Technical Support Document: Social Cost of Carbon for Regulatory Impact Analysis Under Executive Order 12866.

[Footnote 50](#)

This is the same social cost of carbon used in the cost-benefit analysis in support of the Regulations Amending the Passenger Automobile and Light Truck Greenhouse Gas Emission Regulations (SOR/2014-207).

[Footnote 51](#)

IEA, 2015. Achievements of appliance energy efficiency standards and labelling programs: A GLOBAL ASSESSMENT, p. 6.

[Footnote 52](#)

The benefits and costs associated with integrated clothes washer-dryers were accounted for under the product categories of clothes washers and clothes dryers.

[Footnote 53](#)

In the case of three product categories (commercial refrigerators, refrigerator-freezers and freezers [self-contained]; dishwashers; and packaged terminal air conditioners and heat pumps), studies conducted in 2015 showed that all product models being imported into Canada or shipped between provinces comply with the proposed MEPS. No costs or benefits are attributed to the implementation of the proposed MEPS for these product categories.

[Footnote 54](#)

The costs are negative since the analysis showed that a product model that complies with the MEPS could be manufactured at a lower cost than one that does not.

[Footnote 55](#)

Database support for the proposed Regulations is estimated at one full-time equivalent employee for one year occurring in 2017.

[Footnote 56](#)

The Organisation for Economic Co-operation and Development (OECD) categorizes the major benefits of international regulatory harmonization as the economic gains from reduced costs of economic activity and increased trade and investment flows; the ability to manage risks across borders; administrative efficiencies associated with greater transparency and work-sharing; and increased knowledge among peers from information sharing. The challenges are similarly categorized as the costs associated with coordinating work across borders; sovereignty issues and a lack of domestic regulatory flexibility; political influences on regulatory cooperation; and implementation issues. These impacts are beyond the scope of this analysis. (Source: OECD, 2013. International Regulatory Co-operation: Addressing Global Challenges)

[Footnote 57](#)

Maximizing Canada's Energy Advantage, Canadian Industrial Energy Efficiency, Energy and Mines Ministers' Conference, July 2015.

[Footnote 58](#)

<http://www.nrcan.gc.ca/energy/regulations-codes-standards/6845>

[Footnote 59](#)

Stakeholders that were informed included all organizations and individuals with an interest in the proposed Regulations. Groups that provided input include, but are not limited to, manufacturers, industry associations, provincial governments, energy utilities, contractors, and builders.

[Footnote 60](#)

Including policies on central air conditioners and heat pumps, commercial refrigeration, electric motors, fluorescent lamp ballasts, general service fluorescent lamps, general service incandescent reflector lamps, icemakers, packaged terminal air conditioners and heat pumps, refrigerated beverage vending machines, room air conditioners, and oil-fired storage water heaters.

[Footnote 61](#)

http://www1.eere.energy.gov/buildings/appliance_standards/product.aspx/productid/27

[Footnote 62](#)

A power adapter that converts electricity from the mains into a lower alternating or direct current voltage suitable for use by an electrical or electronic device (e.g. a laptop computer).

[Footnote 63](#)

<http://www.tbs-sct.gc.ca/ip-pi/trans/ar-lr/rcc-ccmr/cjfp-rppc-eng.asp>

[Footnote 64](#)

<http://energy.gov/sites/prod/files/2015/05/f22/RCC%20Workplan%20PDF%20EN%20FR.PDF>

[Footnote 65](#)

For example, repealing the Regulations would permanently eliminate unnecessary regulatory differences.

[Footnote 66](#)

IEA/OECD, 2011. Summing up the Parts, Combining Policy Instruments for Least-Cost Climate Mitigation Strategies, p. 8.

[Footnote 67](#)

Gas-fired storage water heaters.

[Footnote 68](#)

GHG emissions are quantified by applying the appropriate emission factors to the changes in energy, by fuel. Consumer savings are quantified by applying the appropriate energy prices to the changes in energy, by fuel.

[Footnote 69](#)

SOR/94-651

[Footnote a](#)

S.C. 1992, c. 36

[Footnote b](#)

S.C. 2009, c. 8, s. 5

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