

Appendix E – Lighting Supply Data Verification

This verification procedure is applicable to all Lighting producers and should be read in conjunction with Ontario Regulation 522/20: Electrical and Electronic Equipment.

For information relating to Lighting management requirements, read the [EEE – Lighting - Verification and Audit Procedure](#)

Purpose

Under the EEE regulations, EEE producers (“producers”) are required to report supply data each year (weight of obligated Lighting materials supplied in Ontario from two years prior) in order to establish their management requirement for the following year.

Producers are also required to verify their supply data. The purpose of this verification procedure is to provide sufficient guidance to producers and the qualified person who will be verifying their data to ensure consistent reporting.

Definitions

For the purposes of this verification procedure:

“**Consumer**” means any the end user of a product. It includes an individual who obtains the product for the individual’s own use and a business that obtains the product for the business’s own use.

Note: Small and large Lighting producer cut off thresholds will be determined at a later date.

“**Performance period**” means the applicable time period, set out under section 4 of the EEE Regulation, during which a producer is responsible for collecting or managing EEE.

“**Post-consumer recycled content**” means content that was recovered from products or packaging that was used by consumers. Note the following:

- EEE producers that supply EEE (ITT/AV and Lighting) containing post-consumer recycled glass or plastic and/or batteries supplied with EEE that contain post-consumer recycled glass, metal or plastic content may reduce their supply weight by the weight of that recycled content up to a maximum of 50% of the supply weight.

“**Product**” means material that is a thing, part of a thing, or combination of things intended for use by a consumer, subject to any alternative meaning or meanings that may be provided for in the regulations.

“**Qualified person**” means an individual, either an employee of the business or a hired third-party, who has one of the following designations and is not the same person who prepared the supply report. The “qualified person” will be referred to as the “**Verifier**” for

the rest of the document:

- CPA, (Chartered Professional Accountant of Canada)
- AICPA, (American Institute of Certified Public Accountants)
- ACCA (Association of Chartered Certified Accountants)
- CIA (Certified Internal Auditor)
- CPB (Certified Professional Bookkeepers of Canada)
- RPA (Registered Professional Accountant) in Canada

To be considered “Qualified”, the Verifier holding any of the above designations must currently be in good standing status with the relevant association issuing the designation.

“**Small ITT/AV producer**” means an ITT/AV producer with a minimum management requirement less than 200,000 kilograms in the previous calendar year.

“**Small Lighting producer**” means a Lighting producer with a minimum management requirement less than TBD kilograms of Lighting in the previous calendar year.

“**Supply**” means:

- (a) to offer the product for sale, expose it for sale or possess it for sale,
- (b) to distribute the product, whether for consideration or not, and
- (c) to lease the product, offer it for lease, expose it for lease or have it in possession for lease.

“**Verifier**” has the same meaning as “Qualified person” for the purpose of this procedure.

“**Weight of ITT/AV**” means the weight of ITT/AV including all components, parts, or peripherals, including batteries, that are provided with the product at the time of supply to the consumer, but must exclude the weight of any printed paper or packaging supplied with the product.

“**Weight of Lighting**” means the weight of Lighting supplied to consumers separately from other products, excluding the weight of any printed paper or packaging that may be supplied with the Lighting.

For compliance purposes:

- (a) The requirement to include a description of the verification processes in the verification statement will be satisfied by a reference to this procedure if the Verifier carries out and completes the verification steps below and provides a conclusion based on the factual findings that derived from carrying out those steps. Where these verification steps are carried out and the verifier is able to give a conclusion, no other verification steps are required.
- (b) It is recognized that in a particular situation it may not be possible for the Verifier to carry out one or more of these verification steps and, as a result, the Verifier may carry out other verification steps. If so, the verification statement is expected to identify the verification steps that could not be carried out, the reason why, and a description of the additional/alternative/supplement verification steps that were carried out instead.

- (c) In the event that a Verifier is unable to give a conclusion after carrying out the verification steps below, a producer has the option of (a) providing a report that reflects that factual outcome and a description of the exceptions, or (b) retaining the Verifier to carry out alternative/additional/supplement verification steps as may be recommended by the Verifier and preparing a report that includes a description of those additional verification steps and the associated factual findings.
- (d) The inspector's ability to require and review relevant records and data is not restricted by this Verification Procedure.

Reporting Requirements

Producers are expected to verify their supply data using this verification procedure. The verification report must include the results and factual findings of applying these specific verification steps and the qualifications of the Verifier. The Verifier must be qualified as set out in the definition section above.

Producers can choose to provide the actual weight of the new Lighting supplied or use the Weight Conversion Factors (the "WCF") in this Verification Procedure to calculate the weight. In this verification procedure, the weight of the EEE (ITT/AV and Lighting) means either the actual weight or the corresponding weight based on the WCF found in [Table 1 \(ITT/AV\)](#) and [Table 2 \(Lighting\)](#)

To determine the calculated weight of the Lighting supplied, producers multiply the units of new Lighting supplied in Ontario for a product category (e.g., compact CFL lamp) within a product type (i.e., compact fluorescent lamps) by the corresponding WCF. To determine the number of units provided into Ontario, producers can choose to use either the actual units or the calculated units of Lighting supplied using the following formula:

$$(P1/P2) \times \text{Canada National Sales}$$

"P1" is the population of Ontario, as reported by Statistics Canada in the **most recent** official census.

"P2" is the total population of provinces and territories in Canada in which the producer sells Lighting in, as reported by Statistics Canada in the most recent official census.

"Canada National Sales" is the total units of Lighting producer sold in Canada in the calendar year.

Application and Review of the Verification Procedure

Starting in 2023, and every year thereafter, Lighting producers must report their supply data to RPR (i.e., 2021 data with their 2023 report; 2022 data with their 2024 report, and so on).

In 2024, all registered Lighting producers are expected to submit a Verification report with their supply data to RPR. Producers that enter the Ontario Market after 2024 are also expected to submit a Verification Report prepared by a Verifier/Qualified Person to RPR

verifying their current-year supply data.

From 2025 and onwards, large Lighting producers are expected to provide a Verification Report prepared in accordance with this Verification Procedure.

Small Lighting producers who submitted a Supply Data Report and sufficient Supply Data Verification Report in 2024 will not be required to submit a Verification Report in 2025. Instead, inspections will be conducted on a percentage of small Lighting producers selected each year. Small and Large Lighting producer cut-off thresholds will be determined at a later date.

The Registrar intends to review this Verification Procedure periodically to determine if changes, including the frequency of the verification, are necessary and appropriate.

Verification Steps

Under the EEE Regulation, producers that supply Lighting containing post-consumer recycled may reduce their supply weight by the weight of that recycled content if applicable.

For this reason, Lighting producers are required to validate the following:

- Annual supply weight before management reduction, and
- The weight of management reduction (if applicable)
 - i. post-consumer recycled content (applicable to ITT/AV and Lighting),

The verification steps below address each component separately.

Verification Steps for Annual Supply before Management Reduction

Lighting producers can meet their supply data reporting requirement by providing a report prepared by a Verifier using the following verification steps:

1. Document responses for the following questions:
 - What is the reported supply weight(s) and management reduction(s) (if applicable) for each obligated material to RPRA? A detailed breakdown of each obligated material and its management reduction is required.
 - What is the producer's marketing process, including how products are supplied in Ontario (e.g., ecommerce, retail sales, etc.)?
 - How are products supplied in Ontario tracked separately from products supplied in other provinces?
 - How is a SKU (Stock Keeping Unit) set up in the producer's ERP/database/system, and what product specifications are included (e.g. product weight, product description, brand name, etc.)?
 - What are the producer's obligations based on the definition of a producer? (Refer to the corresponding Regulation: EEE Regulation.)
 - What are the brand names of products for which the producer has collection and resource recovery obligations?
 - What is the producer's methodology for determining how the products were

supplied

in Ontario (refer to the definition of “supply” in definition section)?

- What is the producer’s step-by-step process for preparing the product supply report, including what systems or applications are used to track product supply and what reports are used? (Ensure that all details required to understand how the product supply report is prepared are documented.)
 - What is the producer’s methodology for determining the weight of the products supplied in Ontario?
 - How does the producer determine which products are included in the product supply report and which ones, if any, are excluded, based on the definitions in the EEE Regulation?
2. Select a sample of obligated SKUs from each obligated material in accordance with [Table 3 below](#) and perform the following for each:
- If actual weight is used, agree it to the manufacturer’s specifications.
 - If calculated weight is used, compare the calculation to the WCFs in [Table 1 \(ITT/AV\)](#) or [Table 2 \(Lighting\)](#) below to determine if the products were reported in the correct categories and if the WCFs were applied correctly.
 - If any discrepancies are noted, provide details of the findings including the verified weight and its impact on the total supply weight reported to RPRA.
3. Validate the accuracy of the product units reported.
- If the actual number of units is used, agree it to the producer’s sales records to validate the total units reported.
 - If calculated number of units is used:
 - Agree the Ontario population to the **most recent** Statistics Canada official census,
 - Agree the population of each province and territory in Canada in which the producer sells Lighting to the **most recent** Statistics Canada official census, and
 - Recalculate the number of Ontario units supplied based on the following formula:
$$(P1/P2) \times \text{Canada National Sales}$$

“P1” is the population of Ontario, as reported by Statistics Canada in the **most recent** official census.

“P2” is the total population of provinces and territories in Canada in which the producer sells Lighting in, as reported by Statistics Canada in the most recent official census.

“Canada National Sales” is the total units of Lighting producer sold in Canada in the calendar year.
4. Select a sample of non-obligated SKUs in accordance with Table 3. For each sample selected, verify that they do not meet the definition of “Lighting,” as applicable, based on the SKU selected.

- If any discrepancies are noted, provide details of the findings including the verified weight and its impact on the total supply weight reported to RPRA.
5. Confirm the accuracy and completeness of the reporting of each obligated product supplied to the Ontario market by sampling one month's data and comparing the raw sales report with the obligated product supply report. Select samples in accordance with Table 3, scrutinize the variances and validate if they are reasonable.

In subsequent years, Verifier must select a different month for the verification purpose.

6. Select a sample in accordance with Table 3 of manual adjustments made to the product supply report and assess if they are reasonable. For example:
 - Products supplied into Ontario and subsequently shipped out of Ontario will result in an adjustment to the supply report.
7. Present conclusion with factual findings as to the accuracy and completeness of the reported supply weights and management reductions (if applicable). Descriptions and explanations of identified discrepancies must also be provided (e.g., over- or under-reporting of supply weights).

In case the verified supply weights and related management reductions (if applicable) from the verification differ from the supply weights reported to RPRA, Verifier must provide the verified weights of supply and management reductions.

If a producer supplies both ITT/AV and Lighting products, the obligated materials must be verified separately, however, the producer can choose to submit the results in a single report.

Lighting:

Verification steps to validate post-consumer recycled content:

Lighting producers that claim post-consumer recycled content are expected to have a qualified third-party verification performed by an independent product certification organization such as Underwriters Laboratories of Canada (ULC), Intertek, or another third party certification body that is qualified to provide such verification. The verification is expected to include an opinion on the accuracy of the total weight of the post-consumer recycled content included.

The third party is expected to do the following:

- Document the producer's step-by-step methodology to determine the total weight of post-consumer content claimed.
- Conduct a review of the actual bill of material and receipt for the specified recycled content product. Trace the weight of the recycled content in the Lighting to the products supplied.
- Identify what types of materials are included in the post-consumer product (i.e. only glass and plastic contained in Lighting), and
- Assess the accuracy of the post-consumer content weight in the new product for which

supply data is being provided.

Verification step to validate the maximum management reduction for Lighting:

- Verify the total management reduction claimed by the Lighting producer, including post- consumer content.
- Validate that this total is less than 50% of the total supply weight.

Table 1: ITT/AV Weight Conversion Factors

Weight Conversion Category	Weight Conversion Factor (kgs)	These are examples of what is captured under each weight conversion category, it is not an exhaustive list.
Small IT Equipment/ Computer Peripherals	0.4	<p>Computer peripherals: keyboard, mouse, webcams, modems, routers, pc's docking station</p> <p>External drives and memory: external DVD/optical drives, CD writers, external disk drives, USB sticks, memory cards</p> <p>POS peripherals: card reading appliance, money authenticator</p> <p>Small IT equipment: calculators (including those that have printing capabilities), translating devices,</p>
		<p>except portable translating devices (see Portable Audio and Video), laser pointers</p> <p>Other: power supply, adaptors</p> <p>Not included: <u>battery chargers (see Small Personal Electronics), headphone/microphones (see Small Personal Electronics)</u></p>
Desktop PCs	8.77	<p>Desktop PCs: Desktop personal computers, all-in-on computers, data processing machines, central processing unit, thin and zero clients, microcomputer, minicomputers</p> <p>Not included: <u>standalone monitors (see Flat Display Panel Monitors)</u></p> <p><u>For any accessories/peripherals sold bundled with a desktop computer, each relevant weight conversion factor should be used</u></p>

Portable Computers (laptops and tablets)	0.85	<p>Portable Computers: Laptops, notebooks, netbooks</p> <p>Tablets: slates, mini tablets, phablets</p> <p><u>Not included:</u> e-readers (see <u>Portable Audio and Video</u>)</p>
Desktop/Countertop Printers (includes printer cartridges sold with)	10.32	<p>Desktop Printers/Copiers/Scanner/Fax: combination printer/copier/scanner/fax, desktop copiers, answering machines/fax combinations, inkjet printers, photo printers, laser printers, matrix printers, 3D-printers, picture scanners, fax machines</p> <p>Other printers: thermal printers, pricing devices, label printers</p> <p>Other: typewriters</p>
Desktop Printer Ink Cartridges	0.12	
Non-Cellular Telephone and Answering Machines	0.45	<p>Telephones: Cordless telephones, telephone sets, interphone, answering machines, videophones, telephone switchboard (small)</p> <p>Other: two-way radios, baby monitors without video (see Flat Display Panel Monitor for video baby monitors)</p>
Mobile Phones	0.09	<p>Mobile phone: Cellular phones, smartphones</p> <p>Other: pagers, personal assistant, PDA</p>
IT Equipment, including wide format printers	48.02	<p>IT equipment: servers, workstations, microfilm readers, electric multimedia table, professional electrical cabinet, ticket detector, barcode scanner, check filler, binding machine, accounting machines, postage-franking machines, ticket-issuing machines</p>
		<p>Wide format printers: blueprint devices, plotters</p>
Floor Standing Printers	122.86	<p>Large multi-functionals, floor-standing copiers/printers</p>
Toner Cartridges for floor standing multi-functional equipment	0.84	
Flat Display Panel Monitors	5.5	<p>LCD, LED, OLED monitors</p> <p>Other: game screens, digital photo displays, parts of LCD monitors, indicator panels, video baby monitors</p> <p><u>Not included:</u> TVs (see <u>Flat Display Panel TVs – appropriate size</u>)</p>

Small Personal Electronics, including chargers	0.39	<p>Small personal electronics: Headphones, earphones, microphones, headphone/microphone combinations, Bluetooth headsets</p> <p>Remote controls (except those for use with game consoles – see Video Game Devices)</p> <p>Chargers: Battery charger, charger for primary and secondary batteries</p> <p>Not included: <u>power supply, adaptors, batteries accumulators (see Small IT)</u></p>
Portable Audio and Video	0.23	<p>Audio Players: MP3 players, portable radios, portable CD/DVD/players, world receivers, clock radios, alarm cd-radios</p> <p>Portable Speakers (for other speakers see Speakers)</p> <p>Car displays and navigation: Portable navigation, navigation devices with monitors, GPS devices</p> <p>E-readers</p> <p>Other: portable translation device, tape recorder, voice recorders, karaoke machine</p>
Non-Portable Audio Recording and Playing Devices	3.73	<p>Non-portable audio players/recorders: radios, Hi-Fi, CD-players/recorders, car stereos, record players, MP3/CD players, tuners, minidisc players/recorders, tape decks</p>
Musical Instruments	Use actual weight	<p>Musical instruments: digital piano/keyboard/pianoforte, electric guitar, electrical organ, electrical accordions, synthesizers</p> <p>Musical peripherals: equalizer, audio delay, sound processor, sound mixer, effects pedal, music docking station</p> <p>Other: amplifiers</p>
Video and Projectors (incl. antennas and receivers)	2.7	<p>Video players and recorders: DVD-player, DVD-recorder, laser disc player, blue-ray player, video-DVD player combination,</p> <p>Cameras: cinematographic and television cameras (for other cameras see Cameras)</p> <p>Projection equipment: cinematographic projectors, overhead projectors, video projectors, slide projector</p> <p>Antennas and receivers: satellite receiver, satellite dish, cable TV, set-top box antenna, signal amplifier, antenna, satellite power amplifier, broadband amplifier, TNT receiver, satellite demodulator</p>

Speakers	2.14	<p>Speakers: single and multiple loudspeakers, multimedia speaker, small loudspeaker MP3 player</p> <p>Other: megaphone</p> <p><u>Not included:</u> portable speakers (see Portable Audio & Video)</p> <p><u>For professional speakers use actual weights</u></p>
Cameras, including security cameras	0.29	<p>Cameras: Digital photo cameras, electrical still picture camera, camera lens, DSLR camera, camcorder/video recorder, video camera, security cameras</p> <p><u>Not included:</u> cinematographic and television cameras (see Video and Projectors)</p>
Flat Display Panel TVs less than or equal to 45 inches	10.2	<p>LED, LCD, Plasma, OLED televisions</p> <p>Other: TV-DVD combination, TV-tuner combination, TV-video combination, portable TV</p> <p><u>Not included:</u> monitors (see Flat Display Panel Monitors)</p> <p><u>For any accessories/peripherals sold bundled with a TV, each relevant weight conversion factor should be use</u></p>
Flat Display Panel TVs greater than or equal to 46 inches	Use actual weight	<p>LED, LCD, Plasma, OLED televisions</p> <p>Other: TV-DVD combination, TV-tuner combination, TV-video combination, portable TV</p> <p><u>Not included:</u> monitors (see Flat Display Panel Monitors)</p> <p><u>For any accessories/peripherals sold bundled with a TV, each relevant weight conversion factor should be use</u></p>
Video Game Devices, including portable and handheld devices	0.48	Game consoles for use with TV or monitor, portable video game devices, game console accessories, handheld video game devices
Drones	Use actual weight	Drones with audio-visual equipment

Table 2: Lighting Weight Conversion Factors

Weight Conversion Category	Weight Conversion Factor (kgs)	<p>These are examples of what is captured under each weight conversion category, it is not an exhaustive list.</p> <p>This list is not intended to capture all obligated Lighting under the Regulation.</p>
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Compact Fluorescent Lamps	0.11	Compact CFL lamp, including retrofit and non-retrofit
Straight Tube Fluorescent Lamps	0.23	Straight fluorescent tube amp HH, straight fluorescent tube amp B2C, tanning lamp, solar, UV facial (lamp only).
Special Lamps	0.23	High pressure sodium lamp, low pressure sodium lamp, professional gas electric light mercury discharge lamp, discharge lamps (excluding fluorescent, hot cathode lamps, mercury or sodium vapor), professional halogen lamp
LED Lamps	0.11	Retrofit LED light, LED lamp with armature, LED lamps (including retrofit LED lamps)
Incandescent Lamps	0.085	Incandescent lamps, incandescent flood lamps

Table 3: Sampling Methodology

Variable sampling is a statistical sampling method that estimates the amount of misstatement in an account balance or class of transactions and compares it to an allowable level of tolerable misstatement. The samples should be randomly selected (unbiased) from the entire population.

The following table sets out the sample sizes required:

Population	Sample size required
500+	60
250	50
100	40
50	30
10	10

Note: these sample sizes are based on 95% confidence level and 5% tolerable deviation rate.

Date	Note
Issued in December 2023	