October 20, 2024

VIA ERO and EMAIL

HON. ANDREA KHANJIN, MINISTER
Ministry of Environment, Conservation and Parks
777 Bay St., 5th Floor
Toronto, ON M7A 2J3

KRISTA FRIESEN, MANAGER
Resource Recovery Policy Branch
Ministry of Environment, Conservation and Parks
40 St. Clair Ave. W., 8th Floor
Toronto, ON M4V 1M2

Dear Minister Khanjin and Ms. Friesen,

RE: Proposed Amendments to the *Electrical and Electronic Equipment (EEE) Regulation* (*O. Reg. 522/20*, ERO #019-8866)

We are pleased to provide the following comments and recommendations on the proposed amendments to the *Electrical and Electronic Equipment (EEE) Regulation* (*O. Reg. 522/20*).

Firstly, we would like to recognize the Ministry of the Environment, Conservation and Parks for providing leadership in creating a high functioning regulatory model that has emphasized the valuable role of reuse and refurbishment of EEE – the first of its kind in Canada.

The current EEE/ITT/AV management regulation has provided substantial progress for the sector of the e-waste management industry that focuses on reuse and refurbishment, as well as embracing waste reduction – key elements for moving toward a Circular Economy and Zero-Waste Future, even if, as yet, they may be only poorly recognized; the benefits that they provide for Ontarians are substantial, need to be venerated, and we will attempt to highlight them here. The progress under RPRA took the form of reuse becoming an official means of diverting e-waste with a 2.0x weight multiplier (relative to weight diverted via recycling) to reflect its added environmental value in terms of landfill avoided, and waste reduction becoming an option available to producers to trade off against their diversion obligations – both are voluntary, innovative and environmentally-focused.

Furthermore, MECP and RPRA have been inclusive of the various service providers by taking into account the relative size and means of service providers participating and contributing to the waste diversion and reduction goals. This is reflected in allowing the participation of smaller municipalities in the collection system with less onerous reporting as well as the adoption of the Reuse and Refurbishment standards established by the province in 2020[1] (in addition to the R2

[1] EEE Processing and Refurbishing Procedure, July 15, 2020: ***https://rpra.ca/wp-content/uploads/Registry-Procedure-EEE-Processing-and-Refurbishing_July-2020.pdf***

standard which is suited to larger organizations) which helps smaller refurbishers and non-profits to meet regulatory requirements.

Executive Summary – Proposed Amendments

Several of the Proposed Amendments will have strong negative impacts on Ontario's environment, ability to meet zero-waste goals, reduce greenhouse gases (GHGs), strengthen multiple segments of Ontario's e-waste management industry, and to provide equitable access to affordable or free technology by economically marginalized individuals, non-profits, and small and medium sized businesses that cannot afford new technology. The amendments of concern are: (1) the recycling efficiency rate (RER) requirements (2) removal of the 2x multiplier for e-waste diversion via reuse, (3) removal waste reduction incentives, and (4) extension of management targets (push back). Below we analyze these proposed changes and provide alternative recommendations with rationale.

Summary Recommendations

1. Removal of the RER with full implementation of a rigorous Recovery Rate metric as the primary performance measure of system wide recycling efficiency. The Reuse multiplier is partly driven by the inverse of the Recovery Rate metric (last reported as 61.1% in 2022), while the Reuse multiplier can be more accurately derived from other metrics that provide rigorous assessment of recycling efficiency (without heroic assumptions) relative to amounts collected, any of these figures and their supporting data are essential to track in order to evaluate program benefits - we acknowledge that as the Recovery Rate or RER-like figures improve there is downward pressure on the Reuse multiplier.

2. A 2.5x Multiplier for Reuse given the incomplete effectiveness of recycling in terms of landfill diversion, and given the substantial effluent, GHGs and solid-waste generated in the production of existing and new ITT devices.

3. Continuation of the ability of Producers to trade reduction results against diversion obligations.

4. Accelerate rather than maintain diversion targets.

Analysis

1. Removal of the Recycling Efficiency Rate (RER)

The RER **(**something of a misnomer given what it calculates) has been the subject of some confusion and we welcome its removal; that said, the Recovery Rate (performance measure) is a critical metric that underpins and drives the output of the entire e-waste diversion framework in Ontario and also defines how results are measured and communicated to policymakers and the public. It is calculated in a comprehensive and rigorous manner. As we understand it, the Recovery Rate is a useful measure that Ontario needs in order to deliver meaningful diversion results since it is a thorough calculation of the system's material recovery weight against the weight supplied into the Ontario market. This objective method provides a concrete and meaningful figure of the diversion that is actually achieved by the system's diversion process. The inverse of the Recovery Rate metric provides us with a proxy measure for the proportion by

which: for every tonne of materials recovered by recycling there is a weight that will go to landfill (or other outcomes that have a non-beneficial environmental effect). The Recovery Rate can also be modified, using data currently being collected by RPRA, to compare the actual weight being recovered (system wide) against the amount collected, to provide a clearer system wide picture of the amount being sent to landfill, or otherwise not being utilized in a beneficial manner. An objective Recovery Rate with modification helps determine the relative value of other methods (reduction, reuse) of waste diversion.

2. 2.5x Multiplier for Reuse

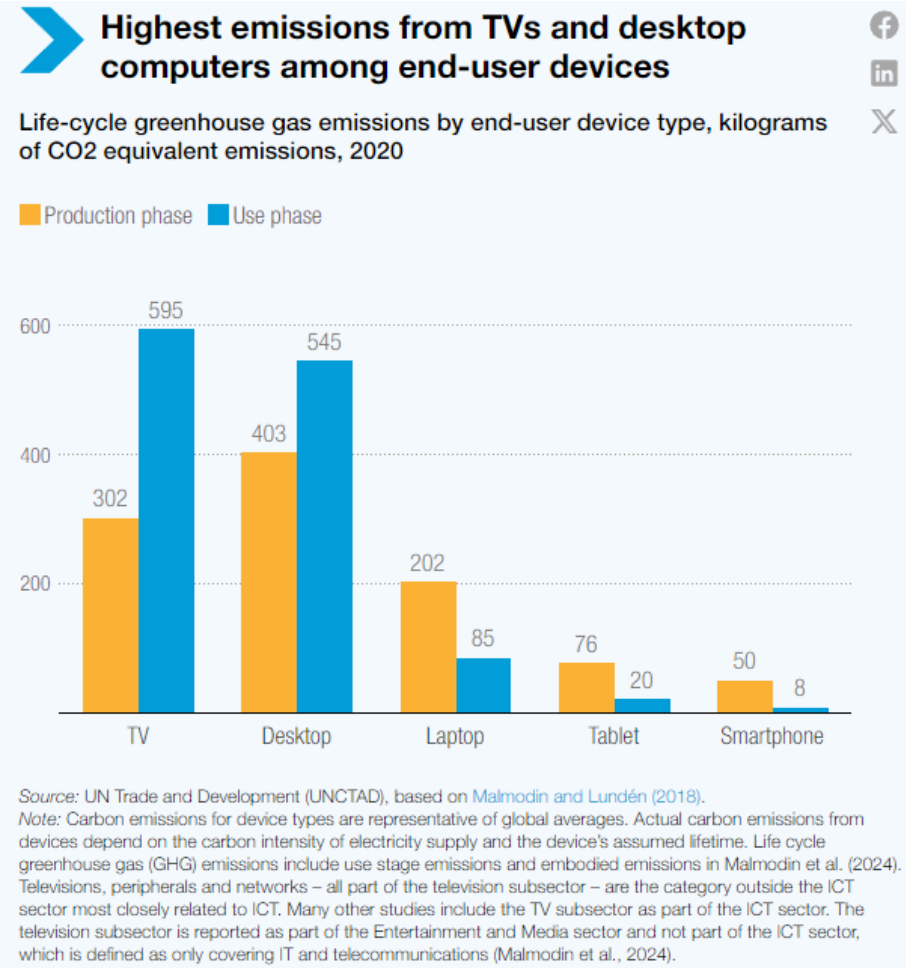
Reuse of waste EEE has earned a waste diversion multiplier of 2.5X over recycling on 2 broad bases:

a. The first, since recycling is only partially efficient at diverting EEE from landfill, whereas reuse, by definition is virtually 100% effective, the reciprocal of the Recovery Rate is an approximate multiplier for how many more tonnes reuse diverts from landfill versus if the same weight of material were recycled/shredded (e.g., a 61.1% Recovery Rate equals a 1.64X Reuse multiplier). Put differently, every tonne of refurbished computers is party to virtually no landfill side-effect, whereas every tonne of resources recovered from supplied computers generates approximately 0.64 tonnes of landfill and other non-recovered materials (using the 2022 Recovery Rate of 61.1%). As mentioned in section 1, the Recovery Rate would require modification to be more accurately aligned with the interpretation we have given it. It would require modest recalculation, using existing data collected by RPRA (but not as yet found by us on the RPRA website, though individually reported by all registered ITT collection sites) to compare total weight recovered by the system (devoid of any multipliers for the purposes of this recalculation) against the total weight collected by the system. This modified figure would presumably have both a lower numerator and lower denominator (since collected amounts are less than those supplied, we assume, and the reuse multiplier would not be applied at this stage of calculation) and may be in the vicinity of 75%, for the purpose of conjecture, and it's inverse would be a 1.33x multiplier for assessing the diversion power of reuse and reduction relative to recycling. Ultimately both calculation methods combine to partly explain the higher diversionary power of reuse and reduction relative to recycling by supporting it in the range of 1.33 to 1.64x – with more data we could provide a more precise figure from these methods.

b. The second, and perhaps more important basis by which reuse and reduction provide superior environmental outcomes relative to recycling and can be added to section a. outcomes above: the advantages of reuse go beyond direct landfill diversion and once again prove it superior to the outcomes achieved via recycling. Each working ITT device (eg laptop, LCD, desktop PC etc) acts as sink for a multitude of pollutant types involved in its original production, Kg of CO2 equivalent is the most commonly used measure of this though there are others such as waste water, solid waste (generated in production), and chemical effluents (sample figures are listed below, see production phase data in the amber coloured bars). If an ITT device is destroyed, as it would be if recycled rather than reused, the benefits that would normally be the beneficial trade-off for so much environmental harm cease to exist. Further still, a new device must replace the one that would have been reused, effectively doubling the environmental cost to maintain a similar technological product. The weight of CO2 equivalent involved in the production of ITT devices dwarves the weight of the products themselves (eg. The production of

a 2Kg laptop causes ~200Kg of CO2 emissions) by orders of magnitude (10-100x – see chart below), without considering other solid waste generation in the process, water that is sullied, and other chemicals not typically the focus of GHG considerations.

Between the modified Recovery Rate and the waste by-products that are generated in originally producing an ITT device and producing its replacement it becomes evident that a 2.5x multiplier is an understatement in properly aligning the diversion framework so as to correctly value the methods which produce the best/better waste diversion outcomes, and by properly valuing a superior method it sends a powerful signal to market operators to implement it where possible and allow it to take a larger role in Ontario's diversion market.



https://unctad.org/publication/digital-economy-report-2024

3. Continuation of Trading Reduction Results Against Diversion

Reduction of waste EEE has a similar environmental outcome profile as reuse and as such, rather than retire the option (which is voluntarily adopted), it should be maintained and further encouraged. There are obvious elements such as how warranty extends product life and thereby by defers waste generation, or how support of consumer or 3rd party repair extends useful life, and right to repair programs – each of these is an innovation (often well received by

consumers) with a positive environmental impact, and we courage an openness to adoption of such known methods, and the creation of new ones.

4. Accelerate Rather Than Maintain Diversion Targets

The overarching goal of the EEE regulations is to recover and divert to the greatest extent possible. It is essential to increase the diversion targets year over year. The increase in the volume of EEE in Ontario is exponential year over year, even with devices getting somewhat lighter, the negative impacts of not recovering and diverting more waste will only negate the results today in the future. Essentially, by maintaining the diversion target, the volume of EEE not being recovered and diverted will increase.

Reuse Standards

Though there is no proposed amendment on the matter currently it should also be noted that the small business and not-profit friendly Reuse and Refubishment Standard that has been developed and adopted in Ontario[1] needs to remain in place. Without it smaller local businesses and non-profits would be excluded from meaningful participation in the system as the R2 standard would not be accessible to them.

Conclusion

We propose that, rather than stepping back from and diluting the existing high functioning regulatory model that is in place, the elements we have discussed be more deeply enshrined in the current round of updates, with an eye to building on this foundation with future updates that further embrace environmental innovation, while working within the broadstrokes of the effective framework that has been established.

We thank you for the opportunity to comment and would welcome the opportunity to further discuss these matters. Should you have any immediate questions, kindly contact Dennis Maslo of Computation Ltd. at 416.801.4358.

Sincerely,

Dennis Maslo
Managing Partner
COMPUTATION LTD.

Shauna McCaffrey
Executive Director
RENEWED COMPUTER TECHNOLOGY (COMPUTERS FOR SCHOOLS ON)

Ryan Fukunaga
Executive Director
FREE GEEK TORONTO

Greg Young
Refurbishing Manager
EASTERN INDEPENDENT TELECOMMUNICATIONS INC.

cc: Ministry of the Environment, Conservation and Parks
Resource Productivity & Recovery Authority

About Us

We represent small businesses and non-profits that primarily focus on reuse of waste EEE for the environmental, economic and social benefits that we can collectively provide. Many of us have been involved in the RPRA program since its inception and were actively involved in the previous program plan under OES and the WDO. We helped to create and adopt the first reuse/refurbishment standard that was inclusive of smaller organizations that have mostly manual processes and limited resources.

Together, we represent many decades of experience and our participation in the current extended producer responsibility system affords us a seasoned perspective on the impact of previous/current regulation, market conditions, and how the proposed regulatory ammendments can be optimized to see Ontarians receive the greatest economic, environmental and technological benefits.