February 12, 2025

Attention:
Matt LeBrun
Director, Chemical Production and Products Division,
Industrial Sectors and Chemicals Directorate
Environment and Climate Change Canada
Produits-Products@ec.gc.ca

Re: Consultation – Roadmap on plastics in electronics

Dear Director Matt LeBrun,

Thank you for all the work you have done to date to move towards Zero Waste and a Circular Economy, and for the opportunity to comment on this consultation document.

Zero Waste BC is a non-profit association dedicated to driving systemic change towards Zero Waste in BC. Zero Waste is defined as the "conservation of all resources by means of responsible production, consumption, reuse, and recovery of products, packaging, and materials without burning and with no discharges to land, water, or air that threaten the environment or human health". Our current resource consumption system is a linear take-make-waste system. Linear resource consumption systems create waste and other forms of pollution, deplete resources, change land uses, and diminish biodiversity by design. They also generate a huge amount of greenhouse gases which constitute just some of the discharges that threaten the economy, human health, and the environment. Here is the link to the Zero Waste Hierarchy which should be followed when developing waste solutions.

We are very concerned about plastics given the environmental and health impacts and the rapid rise of the amount of plastics put on the market, including the over 10% rise of plastics in electrical and electronic equipment (2012-2020 Stats Can data). We are pleased that the ECCC has been responsive to the strong demand from Canadians to move towards Zero Waste, and in particular Zero Plastic Waste. This consultation is another positive step towards reducing our plastic use. Our intention for this feedback is that it will assist in the redesign of our systems for a future where waste does not threaten the economy, human health and the environment.

Sincerely
Sue Maxwell
Chair, Zero Waste BC

ZERO waste
BRITISH COLUMBIA

Feedback

Purpose

We fully support the purpose of extending "the life of plastics in electronics, through repair and reuse of these products" and are aware that the mandate of ECCC is address plastic waste. We hope that in doing so, the actions taken can also reduce overall material use (as noted in point three on innovation), avoid plastic use where possible, and extend the life of electronic products overall (and not just the plastic elements).

Desired Outcomes and Foundational Path

Though not widely used, some waste in Canada is incinerated so it is always important to include that in goals. For example, suggested changes in red could be to 'effectively extend the life of plastics in electronics in order to reduce the quantity of plastics sent to recycling facilities and disposed in landfills and incinerators." Note that the use of the term incinerators here covers all forms of waste to energy.

A key component of zero waste is ensuring materials do not get wasted. The Zero Waste Hierarchy clearly outlines that energy recovery from waste is unacceptable. This is because these are polluting , expensive technologies that displace better solutions further up the hierarchy. We recommend removing the Energy Recovery layer from the hierarchy to ensure that the actual goals of this document can be realized rather than producers focusing on energy recovery to avoid changing designs and systems. The amount of energy and resources to build and maintain these waste of energy facilities, the comparison of the embodied energy in a product versus what can be recovered through so called energy recovery and the opportunity cost incurred make these facilities a costly detour from progress.

Roadmap

1. Data Collection

The actions suggested here are sound. We suggest adding:

- Identifying which electronic products present the greatest plastic reduction and substitution potential
- Gathering of data to support life cycle analyses (similar to the direction of Oregon for its Extended Producer Responsibility program for packaging)[1] that could be used to support ecomodulated fees.

[1]Waste Dive, Jan 15, 2025. Life cycle assessments loom large for the outcome of EPR programs. https://www.wastedive.com/news/life-cycle-assessments-epr-oregon-ecomodulation-

- Gathering of data to support consumer evaluation of product choices (similar to Greenpeace's Guide to Greener Electronics)
- Gathering data to follow France's example and develop a repairability index.
- Examining the Open Repair Data Standard to see what can be included in Canadian systems

2. Collaboration

The actions for working with the electronics sector and provincial/territorial governments are reasonable. We suggest adding collaboration with the sectors for public and environmental interest as well to understand what solutions are needed. This should include the Right to Repair community who can highlight what the key barriers are to extending longevity of products. The environmental sector should be included to ensure proposed solutions do not end up being more harmful in the long run. Including social and environmental justice interests can also ensure solutions do not unfairly impact segments of society. Local governments also have a keen interest in plastic waste reduction, affordability and long lasting products. These other stakeholders should be key to driving and vetting any "best practices, public guidance or aspirational targets". We also support collaboration with global leaders in improving longevity of electric/electronic devices such as France and the EU. Most manufacturers are not Canadian so there is a need for global pressure on companies to change.

3. Innovation

This view to a broader impact and more systemic change towards a circular economy /zero waste is welcome news. We fully support this direction.

Additional directions that can help with this are noted below.

Design

- Options to support the selection of better material choices that may have a smaller footprint, last longer, resist breakage or be more repairable
- Options for better design to allow a more modular-based approach which includes standardization (that could result in pluggable pieces(e.g. Fairphone)
- Standardization of some components such as chargers like in the EU.
- Monitors and printers contribute to waste and the plastic used can be reused if the cases were designed in a modular way for reuse (e.g. when Xerox leased photocopiers).
- Mandate provision of software and software updates for at least ten years to ensure ongoing product usefulness and compatibility
- Consider also examining the role of the continued increase in memory required for these devices due to settings that the manufacturers create (e.g. taking photos in larger scale formats so each photo now takes more MB or takes several photos at once, scaling up the amount of memory for each app, etc.) as these lead to early obsolescence

plastic/737434/?utm_source=Sailthru&utm_medium=email&utm_campaign=Issue:%202025-01-16%20Waste%20Dive%20Newsletter%20%5Bissue:69576%5D&utm_term=Waste%20Dive

despite a device still being functional otherwise. With the rise of this memory use, AI and blockchain, the footprint of electronics usage is growing exponentially and needs to be addressed (possibly outside of this consultation) from climate, energy and materials lenses.
- Other steps to avoid consumers wanting to replace existing items that are still functional

Support for customers
- Mandatory warranties for far longer times
- Mandatory parts availability and supply times for those parts (as in France for large appliances)
- Consider mandating options for *unsmart* devices that would allow some machines to be more durable and easily repairable (household appliances for example where the electronics are hard to repair but for most consumers, a basic dial is sufficient and not every device needs to tell you the time or be lit up all the time)
- Customer service available online or by phone that can support troubleshooting by the customer
- Promotion and support for systems like IFix it

Support for reduce and reuse
- Consider setting a reduction target and a reuse target as proposed in a UK report.[2]

Support for repair
- Mandate repair manuals being available to all repair people and the public
- Ensuring parts available for a long period of time and once no longer supplied by the producers at a reasonable cost/delivery time, that the patterns for them be released so others may manufacture them (potential for 3D printing in communities).
- Ensure it is possible to disassemble for repair and eventually recycling.
- Repair cafes have shown it is hard to only repair on the spot; we need a national repair fund administered locally so it can support local repair people. This could be funded by EPR programs and with government support (e.g. as they do in Austria and Vienna). It could also support customer service troubleshooting as noted above.
- Make repair more accessible and convenient -helping to restore local repair capacity and advocate for access to repair in rural communities (and make it as easy as it is to buy something new).
- Support for repair standardization across all levels (electrical, electronics, equipment).
- The Right to Repair consultation recently held by the federal government is relevant to this topic and suggestions for how to facilitate repair should be incorporated into this roadmap.

[2] The Restart Project (Oct 2024). Beyond Recycling of E-Waste - An investigation into reuse at UK waste facilities. https://therestartproject.org/wp-content/uploads/2024/10/Beyond-Recycling-of-E-Waste-an-investigation-into-reuse-streams-at-UK-waste-facilities.pdf

- Share Reuse Repair Hub (by CIC) is planning on building a nation-wide map on repair options -this could be supported across Canada.

Role of EPR

- Use EPR to drive improvements in product design and help fund initiatives that support reuse and repair, such as repair vouchers.[3]
- Accelerate coverage of EPR programs for electronics/electrical through collaboration with the provinces and territories
- Aim to raise the standards for EPR programs to ensure superior access to collection options (including free mail back options where no depots exist)
- Work to standardize a target of over 95% awareness of the population of these programs (and support systems where governments may conduct their own awareness campaigns and charge the programs the costs where awareness targets are not met)
- Ensure EPR programs are fulfilling their mandates on redesign, reuse and repair. Work with them so they become conduits for affordable reused parts and repair options.
- Improve standards for e-waste EPR programs so they actually must recycle the plastic rather than have it be burned in smelters as a byproduct or go to landfill
- For plastics containing Brominated Fire Retardants (BFR) -ensure systems keep these plastics out of the regular plastics recycling streams. An analysis should be done to see if there is a benefit and if it is to recycle those plastics back into use for electronics only. Note it should be labelled as a different type of plastic to alert the next processor to the BFR content. Consider this in the standardization noted above.
- While large case/structural components of major appliances are metal rather than plastic, all now have electronics components, and an increased use of plastic internally and otherwise. Most EPR programs are not capturing this plastic and it often ends up as waste from auto shredders.
- Raise the standard for EPR program reporting on the amount of plastics used and returned as well as plastic type, quality and quality of recycling (end fate of material and percentage).

[3] ibid