



**CONSERVATION
COUNCIL** ACT REGION

Submission to the Australian Government
Department of Climate Change, Energy, the
Environment and Water

Proposal to regulate small electrical products and solar photovoltaic system waste

July 2023

The Conservation Council ACT Region is the peak non-government environment organisation for the Canberra region. Since 1981, we have spoken up for a healthy environment and a sustainable future for our region. We harness the collective energy, expertise and experience of our more than 40 member groups to promote sound policy and action on the environment.

We campaign for a safe climate, to protect biodiversity in our urban and natural areas, to protect and enhance our waterways, reduce waste, and promote sustainable transport and planning for our city. Working in the ACT and region to influence governments and build widespread support within the community and business, we put forward evidence-based solutions and innovative ideas for how we can live sustainably.

At a time when we need to reimagine a better future, we understand that the changes we need will only happen with the collective support of our community.

For further information please contact:

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Introduction and summary

The Conservation Council ACT Region welcomes the opportunity to provide comment to the Australian Government Department of Climate Change, Energy, the Environment and Water about the discussion paper 'Wired for change: regulation for small electrical products and solar photovoltaic system waste'.

The Council supports development of a stewardship scheme and enabling regulation to drive circular recovery and reuse of materials in electrical products. Such a scheme would internalise the currently externalised costs of the impacts of such products on the environment and human health.

The Council recommends the broadest possible application of the stewardship scheme to encompass all household and small commercial electrical products rather than limiting the definition to less than 20kg or "small" products.

The scheme and associated regulation should

- Be designed to be best practice based on international and domestic examples
- Prohibit the production of materials that cannot be recycled,
- Apply to imported and domestically produced products,
- Include education for producers to drive the redesign of products from circular principles, including ensuring reparability and easy separation of materials at end of life,
- Require rigorous data collection, be transparent and include public reporting,
- Include mandatory diversion from landfill rather than weight-based collection targets,
- Prevent disproportionate markup of product prices by producers/retailers passing through the costs of the scheme
- Clearly identify excluded products (eg vapes, smoke detectors, batteries, other products containing hazardous materials) and alternative disposal methods
- Include public education
- Contain a clear plan for investment in and development of domestic collection, sorting and recycling infrastructure and markets for recovered materials, with scheduled targets (timeline)
- Be accompanied by ambitious legislated targets for inclusion of recycled materials
- Require collection sites to be convenient for the population and allow existing waste collection services, including charities, to become accredited within the scheme
- Cover collection and processing of "legacy" products (ie all items in existence prior to commencement of scheme)
- Be regularly reviewed for effectiveness (in driving circularity and reducing environmental waste), including identifying and closing loopholes being exploited by manufacturers/importers/retailers and addressing any perverse outcomes from the scheme
- Allocate funding to industry research on developing solutions for problematic wastes, such as CSIRO and SMART@UNSW.

The Council supports

- Collection of functioning and repairable items for reuse (rather than disposal before end-of-life)

- Collection of solar systems and installed electrical appliances by trained/accredited electricians only
- Weight-based fees for producers
- Accreditation and mandating of existing voluntary schemes such as Mobile Muster
- Exploration of “eco-modulation” incentives or accreditation to encourage product design that reduces environmental impacts, incorporates recycled materials, keeps products in use longer, makes products repairable, and makes recovery and recycling easier, ie tightly linking the scheme contributions by liable parties to improving product design to minimise creation of waste
- Accrediting appliance retailers as collection sites
- Exploration of incentives for individuals to take unwanted/end-of-life items to collection points (diverting from landfill bins or illegal dumping)
- Implementation of all required legislation by 30 June 2025 for commencement of the scheme before the end of 2025
- “Modular” design of the scheme to be readily expanded to include other product classes in the future

The Council makes the following additional recommendations not addressed by the discussion paper:

- Include all household and small commercial gas appliances to facilitate electrification required to reduce greenhouse gas emissions from buildings
- Support social enterprises to provide sorting services at collection locations and give them priority to create business opportunities using recovered items and materials.
- Support the establishment of “microfactories” for localised materials recovery at collection locations rather than relying predominantly on large-scale recycling infrastructure - see SMaRT@UNSW. This creates local business and employment opportunities and increases localised circulation of materials, reducing transport costs and impacts.

The Council does not support “energy recovery” incineration.

Responses to selected questions on the Proposal to regulate e-products

Introduction

1. I am an

☒ Other

Environmental Peak Body

2. How concerned are you about solar PV system waste?

☒ Very concerned

3. How concerned are you about waste from electrical and electronic equipment?

☒ Very Concerned

4. Do you think government intervention (such as regulation) is needed for Australia to better manage small electrical products waste?

YES

Mandatory stewardship schemes ensure that producers are bearing the costs of the impacts of their goods, but also enable industry collaboration to develop solutions at scale. If industry contributions to the scheme are high enough and tied to the quantity of liable product they produce, they are incentivised to minimise their waste. Such schemes provide the funding to invest in collection services, materials recovery and processing infrastructure. Well-designed stewardship schemes generate business opportunities and employment.

Stewardship must be supported by legislated targets for incorporation of recycled materials into new products, plus the right to repair, and prohibitions on creating products or materials that cannot be easily recycled. This creates a market for recovered materials which is absolutely essential to the economic viability and sustainability of recovery services.

History has shown that without mandatory regulation, most producers take little responsibility for the environmental impacts of their products. The costs of dealing with these impacts are then borne by the rest of society. Additionally, valuable materials are effectively lost from the economy, requiring continued exploitation of finite natural resources driving devastating destruction and pollution of the natural world on which human civilisation depends. The failure of REDcycle is a telling example of the unsustainability of recycling services in the absence of mandatory industry participation and market demand for recovered materials.

Mandatory stewardship schemes are essential to driving a circular economy that values materials and keeps them efficiently in circulation whilst minimising waste creation.

The Conservation Council ACT Region frequently hears concerns from the public about the environmental impacts of electronic goods, solar panels and batteries, and gas appliances being disposed of without recycling solutions. People are hesitant to electrify gas appliances or upgrade to newer, more efficient electrical or solar products because they do not want to dump their current products into landfills.

5. Do you think government intervention (such as regulation) is needed for Australia to better manage solar photovoltaic system waste?

YES

As for question 4, mandatory stewardship and supporting regulation is essential to driving circularity of these materials and the avoidance of waste.

6. Do you think there is sufficient information available to consumers on how their choices can reduce e-waste and how to safely manage e-waste?

NO

7. What additional information do you think should be made available to consumers?

- ☒ Information on the difference my purchase and disposal choice can have on human health and the environment.
- ☒ Accessible information on how I can easily dispose of my unwanted e-waste.
- ☒ Easily understood information on the impacts if my e-waste goes to landfill.
- ☒ Information on the rules relevant to me in my state/territory and what I should do to comply with these rules.
- ☒ Other.

All the consumer educational information in the world is useless if there are no actual solutions for diverting waste from landfill and keeping it in circulation. The Conservation Council frequently hears from the public that they want to repair products or dispose of unwanted goods responsibly but are frustrated by poor product design that does not allow for repair (planned obsolescence) or a complete lack of a recycling solution or lack of faith in the industry (due to discovering that “recycling” was previously dumped into export markets and the failure of REDcycle).

The solution is for manufacturers, importers and retailers to take responsibility for what they produce, not dump the responsibility on consumers and councils.

8. Select one or more of the following objectives you think the scheme should focus on.

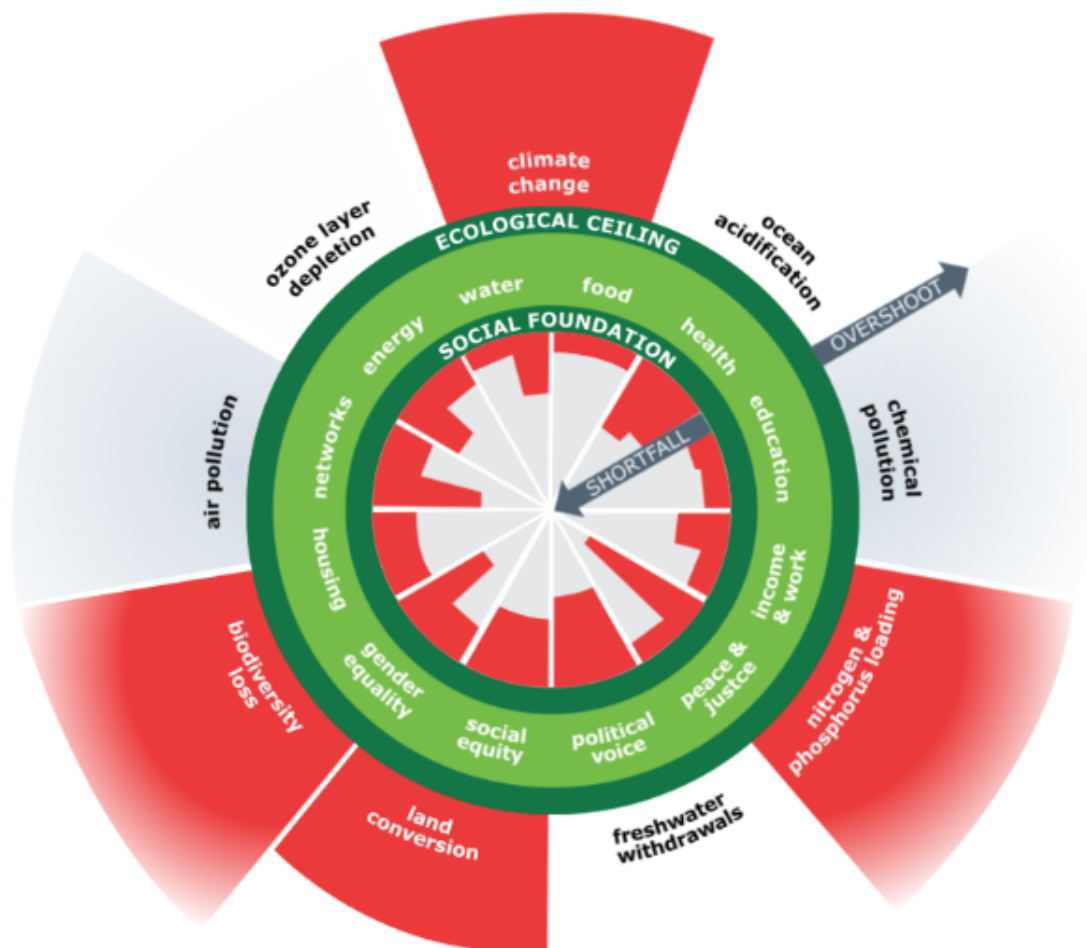
- ☒ Reduce waste to landfill.
- ☒ Increase the recovery of reusable materials.
- ☒ Provide convenient access to e-stewardship services across Australia.
- ☒ Support Australia’s transition to a more circular economy.
- ☒ Foster shared responsibility across the lifecycle of covered products.

9. What objectives should be included or excluded?

The key objective should be driving a circular economy - everything else falls naturally out of and should be subservient to that priority. It would be logically impossible to create landfill wastes if producers and policies adhered to the principles of circular design.

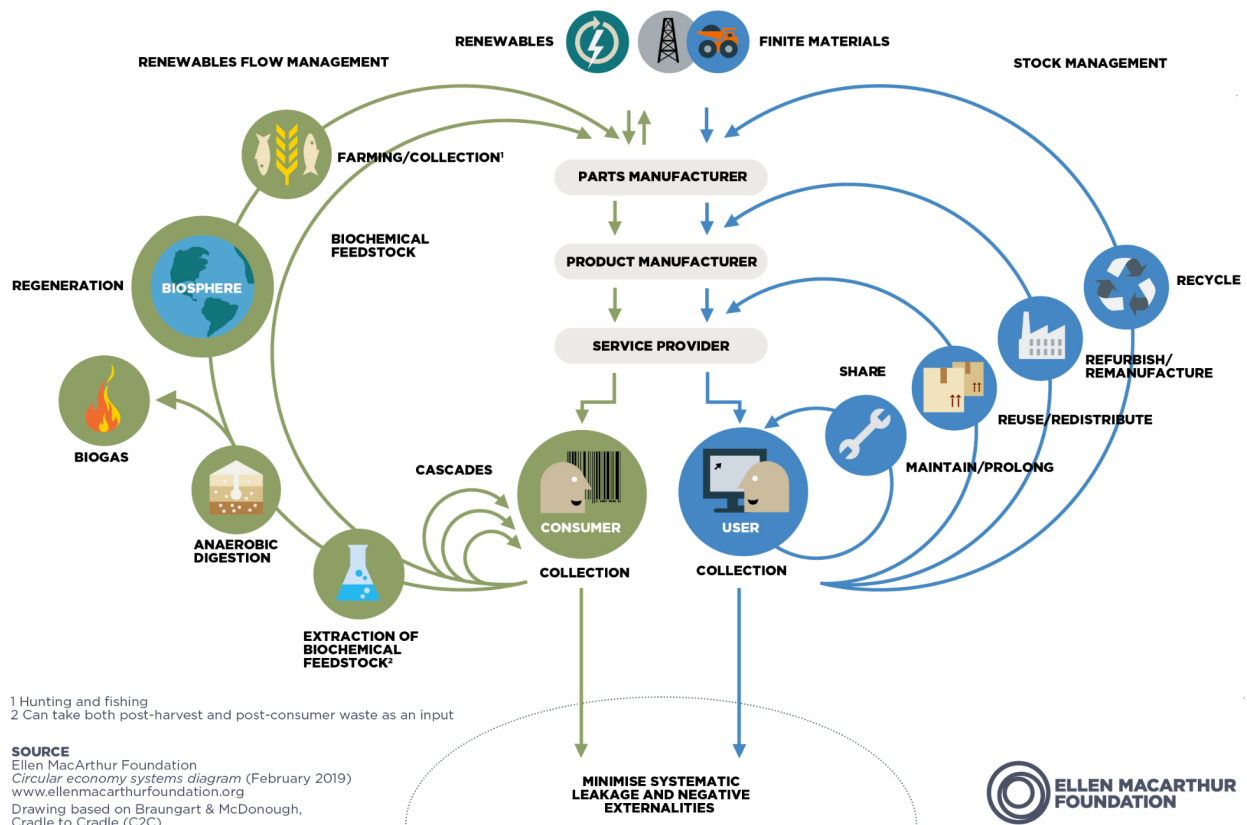
UK economist Kate Raworth's "doughnut economics" is a particularly visually striking model that very effectively embeds the economy within social and planetary boundaries (right), providing the context to redefine the paradigm of our economy. (Kate Raworth, n.d., 'What on Earth is the doughnut?', <https://www.kateraworth.com/doughnut/>)

The Doughnut of social and planetary boundaries (2017)



The Ellen MacArthur Foundation features an excellent visual representation of a circular economy, demonstrating twin cycles of renewable biological materials and finite technical stocks reminiscent of a butterfly (below). (Ellen MacArthur Foundation, n.d., 'The butterfly diagram: visualising the circular economy',

<https://ellenmacarthurfoundation.org/circular-economy-diagram>)



The scheme must generate the funding to invest in development of domestic collection, sorting and recycling infrastructure and markets for recovered materials, as well as industry research.

Scheme administration

10. Explain any concerns about the scheme model proposed in the discussion paper?

The Conservation Council recommends the scheme be designed to be best practice based on international and domestic examples.

It must include rigorous data collection, and be transparent. It must report publicly and be regularly reviewed for effectiveness. These are essential for building public trust.

It should be designed for future expansion to include more product categories.

Liabe parties' responsibilities

16. How could eco-modulated fees be incorporated into the proposed scheme?

The Conservation Council supports exploration of “eco-modulation” incentives or accreditation to encourage product design that reduces environmental impacts, incorporates recycled materials, keeps products in use longer, makes products repairable, and makes recovery and recycling easier, ie tightly linking the scheme contributions by liable parties to improving product design to minimise creation of waste and maximise circularity. Any fee concessions must be regularly reviewed to ensure that the total funding of the scheme is maintained for sustainability of recovery processes over time and that discounts do not have the perverse effect of driving increased production and consumption of goods.

Likewise, all contributions should be reviewed periodically for effectiveness of the scheme in driving circularity. In theory, scaled fees should drive more environmentally responsible production, but where manufacturers continue to produce products that cannot be recycled, other regulatory instruments should be implemented, including bans on problematic materials.

17. Financial reserves will accumulate from the fees collected from liable parties for solar photovoltaic (PV) systems because there may be decades between when the products are placed on market and when they become waste. If any, describe what role government should take in managing these funds.

Funds should be allocated to research and development of problematic waste streams and building the capacity of the industry, including local operators, to deal with future volumes of materials.

Scope

18. Are there any small electrical and electronic equipment products you believe should not be covered under the scheme?

No

The Discussion Paper mentions excluding products containing hazardous substances. It is even more important to include such products in this scheme so that they are diverted from landfill and processed safely. The scheme should incentivise redesigning such products to eliminate the hazardous substances, not exclude them from liability.

20. Are there small electrical and electronic equipment products that you would like to see added to the list of included products in the discussion paper?

YES

21. Which products and why?

The scheme should include ALL household and small commercial appliances, not be limited to “small” 20kg limits. It would be confusing for the public to see their neighbour return a hedge

trimmer or stove to the scheme but have their own version rejected because it is a bit bigger with the result being those larger items are dumped in landfill.

The scheme needs to include all household gas appliances (hot water systems, heating systems, stovetops and ovens) to facilitate electrification essential to reducing global greenhouse gas emissions. Currently, most of these gas appliances are sent to landfill despite containing useful metals and plastics that should be recovered. The Conservation Council's public engagement through our Make the Switch project (<https://maketheswitch.org.au/>) has found that this wastefulness discourages households from phasing out fossil gas appliances which is essential for emissions reduction.

The scheme should also include e-bikes and batteries and other electrical mobility vehicles as these are becoming increasingly popular and will soon become a waste problem as they reach end-of-life.

The scheme should also be rapidly expanded to include motor vehicles. For the uptake of electric vehicles to be effective in reducing global greenhouse gas emissions, internal combustion engine vehicles (ICEVs) need to be actually removed from the market and into material recovery schemes, not pushed down the value chain or exported and remaining on the world's roads. Australia's current cars should be subject to an age cap and/or emissions standard, and a stewardship scheme would help fund the removal and recycling of old polluting cars as well as developing solutions for the new generation of EVs as they age. (Stock, P, 2021, 'Road to ruin: what will happen to old petrol and diesel cars in switch to EVs?', The Driven, <https://thedriven.io/2021/08/18/road-to-ruin-what-will-happen-to-old-petrol-and-diesel-cars-in-switch-to-evs/>)

The producer contribution for vehicles needs to be significant enough to encourage manufacturers to limit the size of their vehicles and encourage customers to choose the smallest vehicle that meets their needs. The current trend of increasing vehicle size is eliminating any benefits from efficiency improvements and electrification, and has significant impacts on resource consumption, public safety and urban amenity. (Lauder, J, 2023, 'Australia's love of big cars is undoing the benefits of the shift to EVs', ABC News, <https://www.abc.net.au/news/2023-07-15/big-cars-on-aussie-roads/102603092>)

As for gas appliances, the Conservation Council hears public concerns that the lack of surety of responsible recycling of old vehicles plus the non-circular resource consumption impact of EV production discourages many people from replacing their current ICEV with a new EV.

23. Should the scheme cover all parts of a solar PV system?

YES

24. Are there any products, or specific solar PV products, that should not be covered?

NO

26. It is proposed the scheme will cover batteries that are embedded in small electrical and electronic equipment but not loose batteries (e.g. AAA batteries). Do you have any concerns regarding the scheme approach to waste containing embedded batteries?

YES

Embedded batteries should definitely be covered by the scheme. However the scheme should also cover any appliance that uses any kind of battery. The general public will not discern the difference and separate goods on that basis, so the collection sites should be prepared to accept and sort all of these products for recycling. Loose batteries can simply be directed into existing battery recycling at the collection points rather than making consumers responsible for separating them.

Likewise, don't make the public responsible for discerning the difference between televisions, computers and other electronic appliances of any size. Co-locate the collection points for all household appliances and employ sorters to direct deposited goods to the appropriate recycling streams. Recovery rates are likely to be far higher if people can take all their unwanted goods to a single location.

Targets and obligations

27. Do you believe that the set of targets and obligations detailed in the discussion paper are appropriate for a product stewardship scheme which covers small electrical and electronic equipment?

NO

28. What changes would you suggest to the proposed targets and obligations?

Targets and timelines should be ambitious to force producers to urgently review their production processes. The Synthesis Report of the IPCC's Sixth Assessment Report (AR6-SYR) released in March 2023 is unequivocal in its statements about the urgency required in global emissions reductions. "Keeping warming to 1.5°C above pre-industrial levels requires deep, rapid and sustained greenhouse gas emissions reductions in all sectors. Emissions should be decreasing by now and will need to be cut by almost half by 2030, if warming is to be limited to 1.5°C." (https://www.ipcc.ch/report/ar6/syr/downloads/press/IPCC_AR6_SYR_PressRelease_en.pdf)

The planet cannot wait another 5, 10, 20 or more years for human society to reduce its impacts through gradual phase-ins of these policies or achievement of anything less than 100% circularity. Recycling solutions do exist for many products that currently end up in landfill, but strict regulation is essential to wide scale participation and making them economically viable and sustainable. We need to rapidly roll out recycling infrastructure for those products that could be but are not currently being recycled, and we must stop making products that cannot be recycled.

The scheme should incentivise repair and reuse of items wherever feasible and be careful to not incentivise more rapid consumption and disposal of consumer goods. The scheme should provide funding to social enterprises dedicated to rescue, repair and resale of functional items, particularly those enterprises that provide employment opportunities or support services for

disadvantaged and diverse people. They should be given priority access to goods deposited at collection points and could be partners in sorting services. Scheme funding should be used to subsidise repair services and training for repairers, along with other incentives such as tax credits for people paying to repair their goods.

Diversion from landfill and circular reuse should be prioritised rather than weight targets for recycling that could have the perverse effect of encouraging greater consumption and disposal of electronic goods.

The Conservation Council does not support “energy recovery”. Incineration destroys the embodied energy of materials that might otherwise have been put back into circulation in our economy, also driving consumption of more energy to create new products that the incinerated materials could have been used for. Waste-to-energy is a cop-out that undermines the development of a circular economy. Any products or materials that have no other solution than incineration should be eliminated from production, through regulation if required.

Transitional arrangements for legacy waste from large-scale PV systems

31. Do you agree it is appropriate that owners be responsible for covering the cost of managing all legacy waste from large-scale commercial solar PV systems (100kW and above?)

YES

33. Do you think it is appropriate to impose a mandatory requirement on owners of large-scale solar PV systems (over 100kW), built before the scheme commenced, to provide information about how they are managing waste?

YES

44. Are there any other comments you would like to make in response to the paper?

See the Introduction and summary to this submission.