



**Southern Sydney Regional Organisation of Councils  
(SSROC) Inc submission on the**

***NSW Resource Recovery Framework Issues Paper***

To the NSW Environment Protection Authority (EPA) via email at:  
[resource.recovery@epa.nsw.gov.au](mailto:resource.recovery@epa.nsw.gov.au)

**Due: 5pm, Friday 6 May 2022**



## Introduction

The Southern Sydney Regional Organisation of Councils, Inc (SSROC) welcomes the opportunity to provide feedback on the EPA's NSW Resource Recovery Framework Review issues paper.

SSROC is an association of 11 Sydney councils, including Bayside, Burwood, Canada Bay, Canterbury Bankstown, City of Sydney, Georges River, Inner West, Randwick, Sutherland, Waverley and Woollahra Councils. Together, our member councils cover a population of over 1.8 million people, or one-third of Sydney's population, and manage over 20% of all NSW household waste, highlighting the central role that these councils play in waste management and resource recovery in NSW.

SSROC provides a forum through which our member councils can interact, exchange ideas and work collaboratively to solve regional issues and contribute to the future sustainability of the region. We advocate on behalf of our region to ensure that major issues are addressed by all levels of government.

This submission represents consolidated feedback from officers of our member councils. Consequently, it should be weighted by the EPA accordingly. However, due to the timing of the submission it has not been possible for it to be endorsed at a formal meeting of SSROC. Should any issues arise at the next ROC meeting, we will be in touch.

The reform of the framework is an important element of the delivery of the NSW Circular Economy Policy, to enable change to occur in a way that is sustainable and economically beneficial, bringing long-term benefits to NSW across all the facets of sustainable development.

SSROC looks forward to participating in further consultations in this important area.

Yours faithfully,

A handwritten signature in black ink that reads 'H Sloan'.

Helen Sloan  
**Chief Executive Officer**  
**Southern Sydney Regional Organisation of Councils (SSROC)**



## Summary of key issues for reform based on SSROC's prior research

Legislation and regulation of the sector have developed in response to a pattern of unsustainable linear consumption and disposal. While they have been necessary and effective, they have come to pose major barriers to resource recovery, which are impeding economic growth in NSW through missed circular economy opportunities.

Now more than ever, the NSW legislative and regulatory framework should enable rather than constrain circular economy policy aspirations by equipping industry and local government to respond agilely to a changing environment that is rapidly rendering conventional approaches outdated. This is not to deny the necessity of the regulatory safeguards administered by the EPA, but to continuously seek to improve the balance between precaution, change and innovation.

In 2019, SSROC commissioned Elton Consulting to conduct an extensive cross-sector stakeholder consultation (attached) on major barriers and opportunities in the current NSW legislative and regulatory framework, then commissioned law firm Clayton Utz to provide recommendations on critical reforms to facilitate improved circular economy outcomes (Attachment 1: Legislative and Regulatory Reforms for Achieving a Circular Economy. Hereinafter, the Report). These recommendations seek to both inform and enable implementation of the NSW Waste and Sustainable Materials Strategy 2041 (WaSM).

Drawing on tailored consultations with a wide range of government, industry, and peak bodies, the review examined 19 key issues, which fall into these areas:

- Funding and affordability
- Flexible, fair, transparent and fit-for-purpose regulatory framework for waste
- Strategic planning and controls
- Waste minimisation, reuse and circular design
- Residual waste

We outline below the key elements of SSROC's draft reform agenda for consideration in the strategy currently being developed. The key principles of the NSW Circular Economy Policy have guided this approach.

### Funding and affordability

A circular economy will demand changes to the way our economy functions. This will require the creation of new jobs and businesses and innovative new solutions for resource efficiency. This transformation will require funding for research and development, pilot projects, proving concepts, changing business practices to facilitate the circulation of resources, and developing new funding models.

The waste levy is collected to disincentivise landfill and resource inefficiency, and the Report findings recommend that funding be directed back to the sector:

- **Mandate full hypothecation of revenue raised from the waste levy back into the waste and resource recovery sector** by amending the Protection of the Environment Operations (POEO) Act 1997 or Waste Avoidance and Resource Recovery (WARR) Act 2001. This levy income is the most significant funding source for waste initiatives and critical for ensuring industry and councils have the resources they need to achieve NSW Government targets, yet Waste Less Recycle More funding has decreased by 43% over the last eight years while the metropolitan waste levy has increased by 148% over the last ten years. NSW reinvested only 11.5% of the waste levy collected in the 2018-2019 financial year into the sector

compared to 66% in Victoria in 2017-18 and at least 50% in South Australia through Green Industries South Australia (GISA) every year.

- **Ensure the waste levy is operating as intended to incentivise waste minimisation and resource recovery** by conducting a public and transparent independent review of the waste levy by the Independent Pricing and Regulatory Tribunal (IPART). The NSW Auditor-General's *Waste levy and grants for waste infrastructure* report, tabled in NSW Parliament on 26 November 2020, found that modelling to test optimal waste levy settings is long overdue and that the levy should be regularly reviewed to ensure that it is optimally geared to encourage its policy objective of waste minimisation and resource recovery. IPART have indicated that NSW Government investment in the WARR sector will stimulate much-needed competition and jobs; that waste levy revenue must be transparent; and that there is an increasing role for the NSW Government to underwrite regulatory risk.

#### Additional funding

- **Provide state land tax and/or stamp duty exemptions** to facilitate land acquisitions related to waste, recycling and resource recovery.
- **Provide funding to assist early-stage development** of key waste and resource recovery infrastructure linked with an evidence-based waste infrastructure strategy. The November 2020 NSW Auditor-General's *Waste levy and grants for waste infrastructure* report, highlights this as a key recommendation.

#### Flexible, fair, transparent and fit-for-purpose regulatory framework for resources

Resources are the building blocks of a functioning circular economy. Their productive use enables manufacturing, creates jobs, attracts investment, and drives technological innovation. Wasted resources, the hallmark of a linear economy, lead to economic inefficiency and compromised welfare across society. The Report findings made a number of recommendations to ensure resources are distinguished from and prioritised over waste, and their productive use is supported and encouraged:

- **Ensure waste-derived resources are prioritised and not subject to the same restrictive regulatory framework as waste**, while ensuring appropriate controls for both, by updating the definition of "waste" in the POEO Act to clearly distinguish between "waste" and "resources". This will encourage the use of recycled materials and provide certainty for suppliers and consumers (including government procurers) of recovered product as an important commodity in a circular economy. Queensland's End of Waste Framework contains many such elements that achieve this.

#### Resource recovery is an essential service

- **Enable resource recovery services to continue without disruption in the event of epidemic or natural disasters** such as bush fires by amending the Essential Services Act 1988 to include waste processing, management, resource recovery and recycling services as essential services.

#### Resource recovery order/exemption regime

- **Ensure that only producers – not consumers (including government procurers) – are liable for compliance of recovered product** and that consumers can rely on certificates of compliance from producers, by appropriately amending the POEO Act. This will reduce regulatory risk to consumers and encourage circular material flows.
- **Improve the efficiency and transparency of the system and provide market participants with more certainty, flexibility and transparency** by inserting a new division in the POEO (Waste) Regulation 2014 introducing appeal rights, as is

already permitted in section 291 of the POEO Act, and timeframes for order and exemption development, approval, review and revocation.

- **Ensure current orders and exemptions are simplified, updated, and reflect market conditions** by introducing a transparent review mechanism that includes adequate consultation with operators. This should include systems for appeal by operators or other stakeholders.
- **Establish a technical advisory committee** made up of rotating stakeholders, which could lead reviews and aforementioned appeals, advise on emerging issues and new technologies, and report periodically on its activities. .
- **Encourage new or emerging technologies** by introducing a fast-track or streamlined approval process for pilot projects.

#### Asbestos waste

- **Avoid landfilling significant volumes of construction & demolition (C&D) and other recyclable material** by updating the definition of “asbestos waste” to ensure a consistent, risk-based approach.
- **Ensure domestic asbestos waste is properly disposed and not dumped illegally** by exempting councils and residents from paying the waste levy. The waste levy is intended as a financial incentive to minimise waste and maximise resource recovery, not penalise disposal of hazardous legacy waste. Correct disposal of hazardous legacy waste should be encouraged and not penalised. Therefore, levy exemptions for residential asbestos should also extend to illegally dumped asbestos that requires disposal by councils (irrespective of origin).

#### Litter

- Litter collected by councils almost universally cannot be recycled, and therefore should be entitled to a waste levy exemption. This would facilitate increased litter capture and enable litter program funds to extend to education or additional public place bins. Clean Up Australia Day litter collections provide a precedent for landfill levy exemptions. This exemption should be extended to all councils.

#### Strategic planning and controls

The infrastructure to efficiently manage waste and re-process resources to be re-manufactured into products for circulation in a local economy is critical to a circular economy, especially once the COAG bans take effect. However, the data needed to identify infrastructure needs has been unreliable, unavailable, or confidential; land zoned for waste often must compete with other developments; and evidence-based planning often does not consider linkages to circular economy outcomes until it is too late. The Report findings identified a number of opportunities to plan future strategic resource management:

- **Fund and provide evidence-based waste and resource recovery specific plans for greater Sydney** based on material flows, regional infrastructure and end market opportunities to reflect gaps and opportunities based on local conditions, as undertaken by DPIE in 2020-21.<sup>1</sup> The November 2020 NSW Auditor-General report, *Waste levy and grants for waste infrastructure*, emphasises that the absence of a formal strategy to guide infrastructure investment in NSW limits the ability of the NSW Government to develop a shared understanding between planners, councils and the waste industry about waste infrastructure requirements and priorities.
- **Future-proof waste, recycling, and resource recovery infrastructure planning needs** by protecting and zoning key industrial hubs so land that is needed for essential infrastructure is not lost to other future developments.
- **Plan for optimum waste management systems with access to major transportation links**, including rail, by amending State Environmental Planning



Policy particularly for precinct development areas such as special activation precincts.

### Waste minimisation, reuse and circular design

NSW currently reuses and recycles only a small proportion of its plastic packaging. National recycled content targets, while important, are voluntary. Resource inefficiencies due to low recyclability and high contamination from plastic are increasing the cost of recycling and leading to significant wastage of usable materials. Industry and all other states and territories have introduced phase-outs of problematic plastics. Report findings highlighted the following recommendations for minimising waste, reducing contamination, and increasing resource efficiency:

- **Promote reuse and repair, improve packaging recyclability, and strengthen producer stewardship** by setting a national standard for design and manufacturing, including acceptable materials, combinations and ratios.
- **Increase local resource resilience and drive economic growth and jobs in the resource recovery sector** by financially incentivising or mandating minimum recycled content.
- **Provide clear guidance to consumers, decrease contamination, and increase the value of recyclable material streams** by mandating the Australasian Recycling Label (ARL) for all product packaging and regulating claims of recyclability, biodegradability and compostability and associated logos based on Australian standards. The ARL has been endorsed by all Australian governments. A 2020 [national audit](#) commissioned by the Australian Council of Recyclers highlighted that inconsistent labelling is creating confusion and recommended a mandatory uniform label on all products and packaging.
- **Increase resource recovery from commercial waste by mandating source separation for businesses.**

### Illegal dumping

- **Increase local deterrence and enforcement mechanisms for illegal dumping** by amending the POEO Act to authorise councils to issue the same level of fines for illegal dumping as the EPA.

### Residual waste

Landfills servicing the metro levy area will be full by 2034. SSROC's 20-year longitudinal kerbside waste audits, considered to be the best such data set in Australia, indicate that metro Sydney councils can only achieve 66% diversion of kerbside waste from landfill even with full recovery of recyclables and food and garden organics. With Advanced Waste Treatment (AWT) that produced compost-like output from general waste no longer feasible, NSW will fall well short of its 80% diversion target without urgent state support for appropriate alternative technologies to process and maximise resource recovery from residual waste.

To achieve this, the Report has found that policy statements related to appropriate alternative technologies for processing and maximising resource recovery from residual waste must be updated to encourage community confidence in the safety of such technology, including:

- Acknowledging the critical and active roles of the NSW Government and early stakeholder consultation in establishing social licence to operate.
- Supporting proven technologies, best-practice emissions standards and feedstock requirements based on European reference facilities and reflect the emergence of new technologies.

## Issues for stakeholder feedback

### Protecting the environment and human health

1. What risk-based approaches, sustainability principles or criteria could be used to assess and manage the environmental and human health risks of resource recovery?

### Asbestos

SSROC recommends:

- 1) Take risk-based regulatory responses that reflect the actual level of risk posed by the amount of asbestos present in waste and recycling materials;
- 2) Review the definition of asbestos in the POEO Act; and
- 3) Introduce, as soon as practicable, the proposal in the NSW Asbestos Waste Strategy 2019-21 (Asbestos Waste Strategy) to remove the landfill levy on certain asbestos waste in a bid to encourage lawful disposal, including illegally dumped asbestos collected by councils.

The EPA has taken an all-or-nothing approach to asbestos, which has set back industry-wide progress in resource recovery of separated streams such as construction and demolition (C&D) waste, organics and recycled crushed glass. "Asbestos waste" is defined under the POEO Act as "waste that contains asbestos". The NSW Court of Criminal Appeal in *Grafil* held that this means that the presence of "any" asbestos regardless of any risk posed by it to human health or the environment will make material "asbestos waste". In practice this has meant that enforcement-heavy responses to a 'one fibre kills' policy stifles industry investment and some resource recovery opportunities. Consensus in the community and with land managers is that making asbestos easier and cheaper to manage will allow people to do the right thing.

In 2018 there was criticism over the EPA handling of the use of treated waste on agricultural land which the NSW delayed reporting to the Environment Minister, and which led to the revocation of a resource recovery order/exemption with little notice given to industry users. The NSW Court of Criminal Appeal has held in *Environment Protection Authority v Grafil Pty Ltd; Environment Protection Authority v Mackenzie [2019] NSWCCA 174* that small traces of asbestos in construction waste stockpiles meant that the stockpiles could not be used for recycling and would need to be disposed of to landfill. NSW legislation and policy on this issue is at odds with a risk-based approach adopted in other States.

This zero-tolerance approach is contrary to the work, health and safety legislative framework and the risk-based approach to bonded asbestos waste that other jurisdictions have taken. The *Work Health and Safety Act 2011* (WHS Act), *Work Health and Safety Regulation 2017* (WHS Regulation) and their underlying codes apply a risk-based approach to workplaces. A number of the codes recognise the National Environment Protection (Assessment of Site Contamination) Measure 1999 (ASC NEPM) as an appropriate guideline to apply particularly when it comes to asbestos in soil.

Under the ASC NEPM, a tiered risk approach is applied to asbestos in soils. The screening levels differ depending on the nature of the risk – whether the asbestos is friable or bonded, and also considering the sensitivity of the use (residential sites versus commercial sites). This framework allows businesses to assess the risk posed by asbestos and treat it



appropriately, proportionate to the risk posed. It contrasts with the current situation under the POEO Act where one fragment of bonded asbestos cement means the entire load meets the definition of "asbestos waste".

NSW needs to develop a risk-based, fit-for-purpose and consistent approach to the regulation of asbestos waste. Ideally, the definition of "asbestos waste" under the POEO Act would be revised. Without change, the current system poses considerable obstacles to achieving a circular economy and could result in significant volumes of material ending up in landfill which could otherwise be used and recovered, following the safe removal of asbestos cement fragments. NSW needs to align the POEO Act and regulations with the risk-based approach under the WHS Regulations which has been adopted in other jurisdictions such as Victoria.

### Illegal dumping

SSROC recommends:

- 1) Increase funding for problematic waste collection points (such as Community Recycling Centres (CRCs)) and council drop off events, and for the materials they are responsible for receiving, including e-waste, polystyrene, soft plastics, and textiles. SSROC councils are concerned that the NSW EPA's funding for CRCs does not cover all CRC operating costs and that there is no guarantee of ongoing funding. This creates substantial financial and reputational risk for councils with current or planned CRCs, particularly as reduced funding may lead to a community backlash.
- 2) Allow councils to seek exemptions from paying the waste levy for illegally dumped material appearing to be of household origin. Not all councils have funding to efficiently manage illegal dumping. IPART's proposed changes to the Domestic Waste Management Charge, at a time when virtually all council non-contestable funding through schemes like the Better Waste and Recycling Fund will be eliminated from 2022-23, would exacerbate this situation. This also applies to member contributions for RID Squad and other successful illegal dumping initiatives.
- 3) Consult councils on a series of lower order household illegal dumping offences designed to deter target offenders that could be included in the LG Act, including on-the-spot fines.

Illegal dumping incidents reported from July 2019 to February 2022 have increased by 59%,<sup>ii</sup> which is at least partially attributable to COVID-19 lockdowns. This is troubling in terms of the potential longer-term impact that COVID-19 has had on illegal dumping behaviour.

Illegal dumping of waste is technically an offence under the POEO Act due to the broad drafting of the waste offence provisions. Councils, as the appropriate regulatory authority, could issue penalty infringement notices for such offences. However, the penalties are high and not designed to deter the target offenders, being residential householders. Instead, we recommend that the NSW Government consult with local councils on a series of lower order household illegal dumping offences that could be included in the LG Act. These offences would be penalty infringement offences so that council officers can issue on-the-spot fines for non-compliance. SSROC acknowledges while it is extremely difficult for council officers and RID Squads to identify the illegal dumper responsible for the offence without surveillance or other contemporaneous evidence, investigators need these tools to build prevention and deterrence measures.

There are two mechanisms that could potentially assist councils in tackling illegal dumping. The first way is to make it easier for people to dispose of unwanted waste in circumstances where the party dealing with the unwanted waste is not penalised. Councils have already achieved some success through state-wide delivery of 90 CRCs and the chemical clean-out



program, allowing community members to drop off problem household waste such as e-waste, paint, motor oils, household batteries, and smoke detectors, which cannot be collected through kerbside waste or recycling collection services.

The NSW Government should consider funding the expansion of collection points, including CRCs, drop off events and mobile options (especially as suitable land in metro Sydney is rare and expensive) to co-locate future NSW-specific producer responsibility schemes for hazardous and problematic wastes. Pursuant to clause 21(1A) of the Waste Regulation, waste received at a CRC is exempt from levy contributions. Furthermore, the EPA could expand its collection contract at CRCs to other wastes such as e-waste, textiles, and soft plastics, etc.

Charities and NGOs can make online applications to the EPA for a Community Service Exemption to the waste levy where they receive donations that cannot be reused or resold or for public clean-up waste from a public area as part of a clean-up activity. Councils should similarly be able to seek such exemptions in relation to dealing with illegally dumped household waste.

The second way is to provide councils with additional powers to allow them to issue penalty infringement notices for certain offences such as dumping household waste – unlawfully disposing of waste on the kerbside or in the local area without arranging for a kerbside collection.

**2. How can the framework be structured to deal with new and emerging waste streams and mitigate the risk of cumulative impacts from legacy and emerging contaminants?**

**‘Sandbox’ approach to pilots with fast-tracked approval**

A fast-track or simplified process could be developed for pilot projects which can demonstrate to the satisfaction of the EPA or an independent expert panel (or technical advisory committee that is transparent in operation and appointed by the EPA) that they have minimal or no impact on human health or the environment.

Time- and risk-limited pilots and licences for emerging innovations to manage new or existing material streams based on what former Environment Minister Matt Kean called a ‘sandbox’ approach are critical for enabling proof of concept and gathering data. A ‘sandbox’ approach could enable industry to test technologies that the technology’s owner can demonstrate meet basic criteria for resource recovery with minimal contamination. This would allow opportunities for technologies to qualify for fast-track approval and licensing.

Early phases of pilots could be subject to more frequent contamination testing and, if they meet requirements that demonstrate a lower risk profile, the pilot could be extended under less rigid testing conditions. As risk profiles vary by material, technologies dealing with certain material types or alongside processes that manage more hazardous materials would be subject to more stringent testing conditions, while less hazardous materials would be given more regulatory flexibility.

### Flexible regulatory approach for non-traditional technology categories

While the resource recovery order and exemption regime allows this to a certain extent, a truly flexible framework must also be able to accommodate technologies that do not easily fit into traditional categories. For example, Licella's Catalytic Hydrothermal Reactor (CAT-HTR) has been bogged down for years by inaction on whether it should be regulated as a thermal or chemical processing technology. After years of investment and discussion, in the end the decision was made to roll out the technology in Victoria where regulations are better able to accommodate new technologies, which cost NSW a valuable investment and economic opportunity.

### Technical advisory committee

Industry reports that the EPA sometimes does not have the technical expertise to regulate certain materials or technologies, or the commercial acumen to anticipate the impact on the market. Establishing an independent panel of experts from industry, academia, and government would not only ensure that the EPA's decision-making apparatus is equipped with the necessary expertise to make proper determinations, but would also provide more confidence to stakeholders that decisions are based on expert advice from specialists in the field.

<h3>3. What options exist to facilitate better circular economy outcomes and improve certainty for innovation, business, investment and participants within the resource recovery framework?</h3>
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### Definition of 'waste' and 'end of waste' framework

In NSW there is no distinction between "waste" and a "resource" generated from processing, recycling, recovering or reusing that waste in legislation. The definition of "waste" in the POEO Act is broad and the Court of Criminal Appeal confirmed in *Environment Protection Authority v Grafil Pty Ltd; Environment Protection Authority v Mackenzie [2019] NSWCCA 174* (Grafil) that "waste" included waste material even if it is processed or recycled into a new product. Practically speaking, this means that all recycled products, when they are applied to land and when they are stockpiled, are "waste" and require licensing and other reporting measures unless specifically exempted. Even if a resource recovery order or exemption applies to the recycled material, it is still "waste".

Creating a distinction between how "waste" and a "resource" are regulated will ensure the regulatory framework is fit-for-purpose and help encourage resource recovery and reuse. Most resources offer beneficial reuse options which pose a negligible risk to the environment and human health and as such they can be subject to a different regulatory approach. Care will still need to be taken in making clear when "waste" becomes a "resource", but certainty should be provided for suppliers and consumers of "resources".

Other Australian jurisdictions have employed this distinction, including Queensland and South Australia. Under Queensland's End of Waste (EOW) Framework, a product which is subject to an EOW Code or EOW approval is no longer waste. It only becomes waste again if the Code or Approval is not complied with or the material is otherwise disposed of, illegally dumped or littered. The strategy behind Queensland's EOW Framework is to transform the perception of waste so that it is seen as a valuable and adaptable resource. We recommend that the NSW Government consider a similar EOW Framework, which would mean the



resource is no longer regulated by certain waste provisions under the POEO Act and the Waste Regulation.

### **Recycled materials standard**

While there has been some progress incorporating sustainability criteria into procurement policy, particularly in NSW and Victoria's standards and guidelines, recycled products are still under development and potentially subject to change. Furthermore there does not appear to be a formal innovation pathway for trials and pilots under the current framework, and licenses are often time-limited.

The Victorian Government is actively exploring opportunities to increase the use of recycled materials in State infrastructure projects. The Government's Social Procurement Framework (SPF) requires government purchasers to consider sustainable outcomes in their major procurement activities. This includes consideration of the use of recycled content in construction when assessing supplier bids. Government buyers must consider environmentally sustainable business practices (in projects valued \$1m and above) and the level of recycled content, waste management and energy consumption (in projects valued \$20m+) when evaluating supplier bids. Key to this will be the development of updated standards and specifications that accommodate and encourage the use of recycled materials.

In 2020-21, Transport for NSW (TfNSW) and SSROC ran parallel procurements of asphalt with recycled crushed glass (RCG) as a substitute for natural sand, which will create demand for an additional 40,000 tonnes of RCG/year, or about 160 million glass bottle equivalents annually, which will double current state-wide demand. The SSROC procurement, the largest of its kind led by Australian local government to date, will go one step further by mandating the inclusion of RCG up to allowable specifications to ensure market development. This initiative has already reshaped the glass beneficiary market in the Sydney metro levy area, and is expected to have knock-on effects across Australia as more state and local governments adopt a similar approach.

Each state has a specification for the use of recycled content within pavements and roads; however, the materials it extends to are limited. There is scope for other recycled products to be used in infrastructure projects, as has been the case in Victoria, but consistent quality and performance standards specifications for these products should be developed to ensure a uniform system across the states that would encourage uptake.

### **Establish a new dedicated resource recovery and recycling authority**

SSROC recommends that the NSW Government establish a new dedicated resource recovery and recycling authority through amendments to the WARR Act. The enormity of the challenge necessitates a specialist authority with a waste and resource recovery centric mandate, dedicated funding and sufficient power and authority to drive rapid changes in the sector.

For NSW to deliver its Circular Economy Policy and change its linear economy to a circular economy, clear and effective government leadership must be sustained and demonstrated. At a state level the NSW EPA and the DPE Circular Economy Markets Unit appear to be sharing responsibility at least for the strategic direction of waste management. However, there is little to no publicly available information which outlines the Circular Economy Markets Unit's objectives and responsibilities and how its work relates to the established role of the NSW EPA in this area.

Some of the shortcomings of the current governance model include:

- A lack of transparency regarding the roles and responsibilities of each agency;
- The conflicting roles of the EPA as both the enforcement arm and policy/initiative arm within the waste management sector; and
- Transparency, certainty and control over funding.

The EPA has received criticism from waste industry associations and other industry commentators regarding its conflicting roles as regulator and advocate. Encouraging a transition to a circular economy will require government agencies to engage with industry in targeted ways to help establish infrastructure, facilities and products that support recovery and reuse. Enforcement or regulatory approaches taken by the EPA recently have potentially dampened industry confidence in the sector. The dissonance between the regulatory stances and the policies needed to achieve a circular economy could potentially limit the EPA's effectiveness in playing a leadership role in this sector.

A dedicated agency with a resource recovery focus would create an opportunity to spearhead transition in the waste sector. The Western City & Aerotropolis Authority (WCAA) is a good example of how a dedicated government agency can help facilitate and deliver a priority project for the State.

The more successful waste agency models in Australia and abroad incorporate some or all the following features:

1. **Structure** –two distinct waste authorities perform separate regulatory functions on the one hand and then strategic, advisory and data collection functions on the other.
2. **Source of powers** – the waste authority is an independent body established through legislation with clear functions and powers set out.
3. **Governance** – the waste authority has an independent board consisting of members with subject matter expertise. The board exercises a range of functions including advisory functions, and oversight is provided by The Governor or Minister.
4. **Funding** – received through levies deposited in a dedicated fund that is ring-fenced from other government departments.-The authority is not entirely reliant on government budget funding in order to maintain its independence.
5. **Data collection** – the authority has the power to collect or access up-to-date waste generation and recycling data which can assist with assessing performance, informing strategic policy, funding and project decisions and influencing reform.
6. **Reporting** – the authority is required to report on performance, operations and achievements on an annual basis and independent audits are undertaken to monitor performance/compliance.
7. **Strategic objectives** – the authority has clear focus areas or objectives which drive the direction of the authority, and the waste authority fosters collaborative relationships with the State and local councils to influence waste policy and initiatives.
8. **Flexibility** – the waste authority is free to engage with industry, voluntary organisations, or producer responsibility schemes. The waste authority is free to procure waste services on behalf of local councils free from competition constraints or other legislative hurdles.

Further, a new statutory authority or state-owned corporation could work conceptually while still promoting competition if it is subject to competition laws, is required by its enabling legislation to act efficiently to avoid the creation of a statutory monopoly, and is subject to some regulatory oversight.

Green Industries South Australia (GISA) (formerly Zero Waste) is a good example of a successful dedicated waste agency in Australia. The South Australian Environment Protection Authority is the regulator that manages waste compliance issues while GISA is the specialist state-owned body corporate responsible for setting waste strategy, coordinating policy initiatives and collaborating with local government and business on how to achieve the priorities set in the areas of waste management, resource recovery and green industries.

### Product stewardship

Product stewardship is a key enabler of a circular economy. It provides an incentive to design products with reduced impacts and it facilitates recovery, reuse and recycling options. The *Product Stewardship Act 2011* (Cth) (PS Act) creates a framework of voluntary, co-regulatory and mandatory product stewardship schemes at national level.

While there are currently no mandatory schemes under the Act, there are voluntary schemes and co-regulatory schemes in place. The National Television and Computer Recycling Scheme (NCRS) is a co-regulatory scheme that applies to televisions, computers, printers and computer products. Companies which manufacture or import 15,001 or more computer products or 5,001 or more televisions, computers or printers are required by the *Product Stewardship (Televisions and Computers) Regulation 2011* to participate in an approved co-regulatory arrangement, overseen by an administrator. The Regulation specifies three outcomes to be achieved in any scheme: facilitating reasonable access to collection services, annual recycling targets (80% recycling rate by 2021) and a material recovery target.

These schemes are designed so that the financial responsibility for products is placed on producers, even end-of-life costs. However, the producers or scheme administrators are not directly managing waste collection but are funding services with their contributions. Local government has a large role to play in this as it is the primary organisation responsible for the collection of household waste. Despite funding, local councils have had to subsidise these collection services.<sup>iii</sup> While some programmes have collection points with retailers or businesses, schemes are increasingly reliant on council collection services.<sup>iv</sup> This was a concern also raised by SSROC in its submission on the *Review of the Product Stewardship Act 2011, including the National Television and Computer Recycling Scheme March 2018*.<sup>v</sup> Effective product stewardship arrangements need to ensure cost-sharing is equitable, with producers or manufacturers taking their fair share of the financial burden to avoid so-called "free-riding".

The first major review of the PS Act released on 9 July 2020<sup>vi</sup> (Review) made the following key recommendations:

- Broaden the objectives of the PS Act to include product design improvements related to durability, reparability, reusability and recyclability.
- Reframe current product stewardship language away from specific products and product classes and towards types of materials (for example, particular types of plastics) across all producers and products. This would shift the focus of product stewardship to help address the adverse impacts of the material's chemical and physical characteristics and emphasise the economic opportunities from recovering and reprocessing the material into new products. Such a reframing would also support priority substances being managed at a national level to achieve economies of scale for recovery and reprocessing.

- Consider the appropriateness of new co-regulatory approaches where significant free-rider issues exist. The example given in the review was the voluntary scheme Australian Institute of Petroleum (AIP) Used Oil Bottle Collection and Recycling Scheme funded and operated by the AIP on behalf of its member companies to process plastic motor oil bottles up to 20 litres in capacity. According to the review, the scheme successfully provided services for 12 years before closing at the end of 2016 due to increasing free-rider issues as more and more AIP members exited the scheme leaving remaining scheme participants at an increasing competitive disadvantage causing the scheme to become unviable and collapse.
- More clearly link the product list with the process for developing new schemes or expanding existing schemes.
- Increase the brand recognition of Australian product stewardship accreditation among industry and the community more broadly.
- Assess the feasibility of expanding the NTCRS to include electronic and electrical equipment products.
- Develop a policy position for the NTCRS on "reuse" before the next review.
- Review the percentage target and the methodology for calculating waste arising before the next statutory review.
- Consider updating or developing new guidelines for allowable material recovery tracking and reporting under the scheme.
- Clarify reporting requirements for downstream recycling.
- Explore the merit of creating a central clearinghouse to create efficiencies across multiple schemes, encourage the creation of new schemes and assist with compliance and enforcement.

Proactive stakeholder engagement with industry members and local government is clearly crucial to determining whether an expanded producer responsibility scheme is voluntary, co-regulatory or mandatory. Before expanding available schemes, the NSW Government should consider the need for a national or a state-based approach for industries and/or products and what suitable policy and governance measures should be in place.

Following the Review, the Commonwealth government introduced the *Recycling and Waste Reduction Bill 2020* at the end of August 2020 which deals with waste export bans and strengthens product stewardship. The provisions of the Bill that deal with bans on the exports of unprocessed glass, plastics, tyres and paper provide for a licensing regime that allows these materials to be exported if they are processed to specified standards. The Minister's priority lists of wastes will also have a more important role if the Bill is passed. The priority list would also specify timeframes within which the government expects industries to develop voluntary schemes if they want to avoid mandatory versions. The Bill also contains measures to promote and reward companies for taking voluntary action on stewardship, including through the development of a new product stewardship logo "to help foster the product stewardship brand".

In our view any future product stewardship schemes should be encouraged to ensure uptake and oversight across relevant industries. These schemes should afford sufficient flexibility and opportunity for stakeholder input so that schemes are embraced by industry members and also take into account any involvement local councils will have in assisting with collections either through CRCs or kerbside collection services.

The Commonwealth's proposal to expand the NTCRS to cover broader waste electronic and electrical equipment (WEEE) is commended and should include all electronic items with a plug-in cord and small battery-operated electronic devices. The European Union introduced legislation in 2002 in the form of the WEEE Directive in 2002 (2002/96/EC) and revised this

a decade later to include photovoltaic cells (2012/19/EU). The WEEE legislation provided a harmonised approach across the European Union to deal with this waste stream. Although the WEEE legislation has proved successful in recycling e-waste and extracting useful components for reuse, recent research indicates that the minimum standards adopted has not encouraged the potential to increase product longevity, repair and reuse. Any similar legislation in Australia should ideally be rolled out in conjunction with sustainable design practices to encourage more reuse over recycling where practicable.<sup>vii</sup>

Extended product stewardship schemes for packaging across different industry sectors could also be prioritised either at a national or state level. For example, in France, producers must set up a collective product responsibility organisation (PRO) or manage their waste from their products through an equivalent scheme. Producers are required to pay a contribution, called an "eco contribution", to the PRO to fund the management of waste generated by their products. The fees paid depend on the weight of packaging per material type plus a flat unit fee based on the number of packaging units. The PRO does not collect or manage waste itself but funds existing services such as kerbside collection. Recently, France's packaging regulation has captured waste from online shopping sales as well to ensure collection is also financed. A similar scheme could be rolled out in NSW or indeed nationwide.

### **Review stockpiling limits based on onshore demand**

As the COAG export bans come into effect and markets for products with Australian-recycled content continue to develop, material processors and reprocessors are facing the difficult decision of transporting unsold materials interstate or landfilling them. In order to accommodate market development and transition, SSROC recommends reviewing stockpiling limits for certain key materials with a high prospect for onshore demand. This would still be conditional on environmental, health and safety, and contamination requirements, but would give industry more flexibility to find and create markets for waste-derived resources.

In addition, stockpiling limitations on certain key materials make it more difficult to test samples and limit availability of stockpiled materials not for immediate sale for use in pilots, which are crucial to innovating solutions to create and scale up markets and demand.

### **Develop standards for recyclability, recycled content, and reuse and repair, and regulate unevicenced claims**

SSROC recommends that the EPA work with Standards Australia or Good Environmental Choice Australia (GECA) to develop a standard for recyclability and reuse that can be applied to all eligible products and packaging.

While many brand owners and retailers claim that products and/or packaging are recyclable, the truth is that in many cases they are either not recyclable at all, not recyclable through each locale's collection and processing system, requiring a niche collection and processing system, or consumers are simply confused about whether and how products can be recycled. Moreover, as demand for sustainable value chains increase, industry attempts to greenwash their products and supply chains are on the rise, leading to uninformed consumer choices and limited actual end-of-life reuse or recycling options.

A standard on recyclability could consider all or a combination of product and packaging formats, materials, assembly, existing product stewardship schemes, available infrastructure, collection systems, proximity to processing facilities, and end markets.



A standard on recyclability, backed by EPA regulation of claims of recyclability and use of the Tidyman logo, would increase resource recovery and decrease contamination, improving the quality of material streams to be used as downstream feedstock.

Similarly, a standard for verification of recycled content would provide guidance and clarity for both producers and consumers, and prioritise Australian-recycled content. Meanwhile, standards for reuse and repair, aligned with Right to Repair legislation and product stewardship schemes, would begin to address a critical gap in the waste hierarchy to ensure products remain in use for longer, increasing landfill diversion, cutting carbon emissions, and shifting consumer culture.

### **Resource recovery and recycling are essential services & waste management and recycling infrastructure are essential infrastructure**

SSROC recommends that the *Essential Services Act 1988* (NSW) is updated to include resource recovery and recycling as essential services, and waste management and recycling infrastructure as essential infrastructure.

Growth in waste-related industries may require legislative change to broaden the existing concept of an "essential service" in NSW. Furthermore, the prevalence of natural disasters and emergencies due to climate change (such as fires, floods, drought) and external factors (fuel costs, geopolitical unrest, pandemics) creates serious and costly challenges to deal with waste at a time when people and resources are focused on enduring the emergency at hand.

Currently the provision of "garbage, sanitary cleaning or sewerage services" are identified as essential services for the purposes of the *Essential Services Act 1988* (NSW). Where services are likely to be disrupted – that is they are, or are likely to cease, be interrupted or reduced, be rendered insufficient for the community or are unable to meet the reasonable requirements of the community from any cause – the Governor is empowered to make regulations to take control of an essential service. The Governor can also declare that a state of emergency exists in respect of an essential service and special powers are provided to the relevant minister in respect of that service.

The Act was introduced to handle disruptions in the operation of essential services to safeguard these for the public interest. A "disruption" to an essential service is not defined. In a linear economic model "garbage disposal" is the key service provided to manage waste. However, in a circular economic model a broader range of services are crucial for the proper functioning of the economy.

Expanding essential services to include other waste processing, waste management and resource recovery and recycling services and activities is required to:

- secure the effective operation of this sector in the event of a threatened disruption, such as floods, fires, facility emergencies, and major public health disruptions. The COVID-19 public health emergency has highlighted the essential nature of all waste related services for the functioning of our society
- be up-to-date in times of crisis when they are called on
- ensure the Governor and/or Minister is empowered to ensure continuity of service. The Governor can include additional "essential services" by making a declaration under the Act.

Regarding waste infrastructure, in 2019 the Greater Sydney Commission published an open letter to then Minister for Energy and Environment Matt Kean<sup>viii</sup> encouraging the NSW

Government to set a long-term vision for reducing waste and driving sustainable recycling markets by considering all material flows into and out of the city, including waste, water and energy, with the potential to trend over time towards circularity. The letter's key ideas and actions for better outcomes in the waste sector included:

1. There is a role for policy and planning to assist in the identification of suitable locations for waste management; for their protection and to make them available to the private sector. The establishment of 'Waste Districts' is centred on the idea of large self-buffered urban services precincts distributed across the city. This idea would facilitate changes in the waste sector to deliver the following benefits:
  - i. Integrated management of all waste streams across a defined area or district;
  - ii. Co-location of similar waste management activities for the supply and delivery of recyclable materials for distribution.
2. Consideration should be given to the investigation and implementation of innovative waste management approaches that have been successful in other global cities. A strategic approach to the management of waste (at both Council and State level) with the opportunity and policy support to investigate innovative solutions may trigger new responses from the waste sector.
3. Develop strategic land use plans that support more effective district waste management, recycling and waste services. These services are critical urban infrastructure, and an essential part of our urban system. The future location of these services within our industrial and urban services lands needs to be planned to support good growth management with better waste management.

**4. What specific benefits would an 'end of waste' provision deliver that aren't already provided by the current framework?**

### Reduced risk for consumers of recovered products

In the Grafil case, the Court of Criminal Appeal made it clear that a consumer of a recovered product may breach a resource recovery exemption if the producer from which the recovered product is sourced has failed to comply with the terms of a corresponding resource recovery order. In other words, consumers may commit offences under the POEO Act, and assume responsibility for clean-up costs, because of a failure on the part of the producer. In comparison under the EOW Framework, it is the registered resource producer's responsibility to ensure that the resource meets the specified criteria and quality characteristics prior to supplying the resource to the user for approved use.

The consequences for consumers is significant:

- consumers cannot rely on certificates of compliance from producers to excuse them from their responsibility to comply with requirements regarding the chemical composition of the product they receive; and
- a failure to comply with a condition of the exemption (including those conditions which may be outside of the consumer's control) will mean that a holder cannot rely on that authority.

A certificate of compliance received from a producer should enable a consumer to use the material for the intended purpose without risk of recrimination. Requiring consumers to test recovered product to assure the chemical composition of that product places a considerable burden on those who rely on exemptions of this kind. If consumers of recovered product cannot rely on the certificates of compliance provided by the producer of that product, the resource recovery sector and the development of end markets are threatened. Such a

system is not fit for purpose. Industry requires certainty to develop these markets, which ultimately increases recycling and reuse and diverts waste from landfill.

As the Court's judgment is clear and binding, law reform is required to address this issue. We recommend that the POEO Act is amended to ensure that consumers can rely on certificates of compliance and are not liable for offences associated with non-compliances of the producer of that product.

We also recommend that the EPA establishes a register of producers which use resource recovery orders similar to the Queensland system. In Queensland, a producer must notify the Chief Executive of the Department of Environment and Science of that person's intention to become a registered resource producer.<sup>x</sup> Greater oversight results in an opportunity to conduct audits and inspections, and cancel or suspend a registration if the regulator believes the producer has failed to comply with a requirement of the EOW Code.<sup>x</sup> Users of the recovered product in Queensland are not required to be registered, although some EOW Codes specifically require a user to notify the Department of their intention to rely on the Code, before the resource is applied in the relevant way. NSW could benefit from a similar registration/notification system to encourage greater accountability for users of the system.

### **Less onerous documentation of waste-derived materials**

The current resource recovery order and exemption framework requires suppliers of waste-derived recycled materials – including when used as feedstock for downstream processes – to maintain documentation on these materials for up to 7 years. Suppliers of these materials have reported that this requirement is unnecessarily onerous as these materials must already meet established contamination and other specifications to be used or sold under this framework.

SSROC recommends that the documentation requirements for waste-derived materials be reviewed to ensure that only that which is truly necessary is required in future, since the current requirement hinders market development of waste-derived resources in the NSW economy.

### **Reframe the narrative of waste as a valuable resource**

SSROC recommends redefining 'waste' in the POEO Act to align with the objectives of the WARR Act and WaSM, and establishing an EOW framework. This would make a clear distinction between 'waste' and 'resources', set clear criteria for how waste can gain legal status as a resource, eliminate confusion and burdensome restrictions for suppliers and consumers, and effect a cultural change that prioritises Australian-recycled content.

**5. Are there resources being recovered or reused outside the current exemption framework that would benefit from greater regulatory clarity?**

### **Mandatory commercial source separation**

SSROC recommends that a mandatory source separation system for businesses of a particular size or which generate a particular volume of waste is established. To enforce the mandatory system we recommend that provisions be inserted creating new offences for failing to implement or comply with mandatory source separation programs. These offences



would be penalty infringement offences so that EPA officers could issue on-the-spot fines for non-compliance.

Any business captured by the mandatory scheme could be required to register with the EPA and submit annual certification/evidence that it has a current contract for recycling services for the coming year.

The particulars of any scheme would require consultation between state and local government and industry. Incentivising source separation is likely to be more complex. Incentives are often a feature of successful source separation systems overseas and so incentives should be subject to further consideration in the NSW system.

The “International Waste Sector Volume III: Benchmarking Review” report prepared by PWC and Sphere Infrastructure Partners for the EPA in April 2019 reviewed and analysed the waste management policies across seven jurisdictions worldwide. It observed that effective reduction in waste comes from strong legislative and regulatory policy levers as well as financial disincentives for non-compliant behaviour.

The nature of a more general diversion and recycling target means that it is difficult to enforce. Source separation supports the achievement of these targets and can be properly managed and enforced at a local level.

We recommend that a mandatory source separation system for businesses of a particular size or which generate a particular volume of waste is established much like the systems in California.<sup>xi</sup> This system could be introduced through amendments to the POEO Act or WARR Act.

### Product stewardship

See response under question 3 above.

## 6. How could the overall transparency and clarity of the resource recovery framework be improved?

### SSROC recommends:

- Guidance documents with FAQs on how the resource recovery order/exemption framework operates;
- Introduce appeal rights and timeframes for decision-making with respect to resource recovery order/exemption applications and introduce decision-making procedures with respect to important decisions made by the EPA including decisions to revoke an exemption or order;
- Ensure transparency and a greater ability to enforce by establishing a register of producers which use resource recovery orders similar to the Queensland system and also potentially users who rely on certain exemptions;
- Introduce transparent reviews of resource recovery orders/exemptions to ensure that they are fit-for-purpose;
- Ensure that consumers of recycled and recovered product can rely on a certificate of compliance from a producer and have certainty around the use of that product (see response to question 4 above);
- A fast-track or simplified process could be developed for pilot projects which can demonstrate minimal or no impact on human health or environment;

- Improve visibility of data throughout the value chain through a centralised data platform; and
- Order/exemption application templates could be developed to ensure clarity over necessary inputs and data, and avoid redundant or poorly written applications. This could also streamline the application process for both applicants and the assessor.

### Review of orders/exemptions

Many of the general resource recovery orders/exemptions issued have not been revised in years. There is an opportunity for the EPA to review and, wherever possible, simplify and update the content of existing resource recovery orders and exemptions. While the EPA needs to provide certainty that the terms of an order/exemption will not continually change, there is an opportunity to build in a transparent review mechanism. This will ensure that orders/exemptions reflect current available technologies, the latest testing regimes, as well as current and emerging markets. Appropriate timeframes for commencement of any new or revised orders/exemptions may be necessary to allow the industry to gradually transition (for example, to a new technology).

Transparent improvement and review should be a feature of this regulatory system much like transparent review of subordinate legislation, and include monitoring of material flows and inputs, compliance, data gaps and how end markets are developing to feedback into reprocessing and remanufacturing infrastructure. In addition, it is important for the EPA to take urgent reviews of any significant new risk to human health or the environment as soon as it arises to maintain consumer confidence.

We recommend the EPA appoint a dedicated technical advisory group to give advice on application matters, and to carry out transparent reviews of orders/exemptions in a timely manner. The group may also be called on to assist with reviews of individual applications for orders/exemptions if applicants are granted review and/or appeal rights. Any ultimate decision, however, should rest with the EPA.

### Approvals processes and right of reply

Applicants for resource recovery orders/exemptions in NSW experience significant delay and uncertainty in the application process, partly because there is no set time for decision-making, and no opportunity to request a review or appeal of an application. There is little transparency or accountability through the process.

Section 291 of the POEO Act already permits the regulations to make provision for appeals to the Land and Environment Court or the Local Court, against decisions made under those regulations. Relying on this section, a new division could be inserted into the Waste Regulation introducing an appeal system. An applicant for a resource recovery order/exemption could then appeal a decision made or accrue an appeal right if the EPA fails to determine the application within set statutory timeframes. An appeal to the Land and Environment Court would be a merits appeal, involving expert evidence and/or a court-appointed expert to assist the Court with technical matters. The legislation could introduce either an optional or mandatory review system which could precede a Court appeal. Similar to the *Environmental Planning and Assessment Act 1979* the decision-maker or their superior would review the deemed or actual decision made.

The implications of introducing a review and/or appeal process will need to be assessed in any potential reform, as will the consequences of expanding the jurisdiction of the Land and Environment Court. Appeals, however, may not be appropriate for those decisions which relate to generic resource recovery orders/exemptions. These are resource recovery

orders/exemptions which do not have an individual applicant or person who would naturally have standing to commence an appeal.

A fast-track or simplified process could be developed for pilot projects which can demonstrate to the satisfaction of the EPA or an independent expert panel (appointed by the EPA) that they have minimal or no impact on human health or the environment.

## 7. What tools, systems, data or methods could be used by the EPA to better understand the waste being utilised under the framework?

### Waste tracking

Consumers of waste-derived products often have poor visibility over material value chains due to poor traceability and commercial confidentiality, which introduces the risk that consumers are not receiving what they should be and also poses a barrier to organisation seeking to quantify and address scope 3 emissions.

Improving the chain of custody in relation to different recyclable waste streams could ensure that this waste stream is delivered to the intended destination and provides visibility that would better enable consumers to action environmental and social responsibility. The EPA has already established a specific waste tracking regime for asbestos waste through a platform known as "WasteLocate".

The WasteLocate application generates data on trackable consignments. A consignment can be created at the pick-up location by a user with a smart phone or desktop device. The waste receiving facility is also under an obligation to provide the EPA with a monthly record of all vehicles that have failed to scan the QR2id code. To the extent that this does not create an additional burden on councils, this waste tracking system could be expanded or a similar system developed to ensure that resource materials and other recyclable materials are tracked through a documented chain of custody to their destination and ensure this data is made available to councils.

### Blockchain

Blockchain is a digital ledger used to record transactions and store relevant transaction information (e.g. date, time and digital signature of those involved in a transaction), which could help trace the lifecycle of a product, or waste. Data can be uploaded to a platform for particular information management needs. Blockchain can use QR codes, RFID or other means of unique product identification.

In the context of waste management, this could include tracing material flows from consumption to re-manufacturing, which, like QR codes, could be used to improve product stewardship or reward positive behaviour. Blockchain offers traceability and accountability because every transaction is recorded and can be further verified and validated by peers. Public blockchain is an open-source platform that allows any individual to mine data, which could offer the public greater access to recycling information for particular goods. While this may be beneficial to the public, it may not be appealing to industry and they may favour a private blockchain where they can restrict access to commercially sensitivity data.

The best outcome for the waste industry as a whole may be a combination known as a consortium blockchain. This could mean that commercially sensitive data is managed by the organisation, with access granted to authorised third parties such as a panel of regulatory



agencies, shareholders or customers. This could offer greater data transparency for customers as well as facilitate audits by regulatory agencies.

There are various ways to use blockchain. In the French rail network, each bin station has a block which, with the help of Bluetooth, calculates the quantities of each type of waste, and reports who is collecting it and how. Bluetooth enables continuous updates on the amount of waste present in bins and improves waste management and optimises sorting.

Another example is Recereum, a blockchain-based platform that rewards people based on the amount of waste they have segregated, calculated by bins with RFID tags and sensors. Blockchain has been incorporated into a global recycling venture called Plastic Bank, founded in Canada to reduce plastic waste in developing countries. It works by providing blockchain-secured digital tokens that are earned when plastic is brought into recycling centres. The tokens can then be used to purchase items such as food. The plastic can then be recycled into new products.

The system is attractive because it improves the traceability of goods in the materials economy and offers greater data granularity to organisations and (potentially) the general public to facilitate commodity trading, tracing of recycling through the materials economy and improved certainty and timeliness in data.<sup>xii</sup>

### Centralised data portal

SSROC regional policy dictates that data identifies the problem and drives the solution. However, data is often limited because it is either not collected, not available to all stakeholders that need it due to commercial confidentiality, is managed differently and inconsistently across jurisdictions and levels of government, or even double or triple handled due to inadequate waste data protocols. The result is that stakeholders do not have visibility over material flow data to inform decisions.

SSROC recommends that the EPA devise and make available to all necessary value chain stakeholders a centralised data portal, aligned with the Department of Agriculture, Water and Environment, that warehouses all available data on material flows. As required by the POEO Act, facilities could be deidentified and data could be aggregated at sufficient scale to protect confidentiality while still providing stakeholders with the information they need to make, for example, procurement decisions about products with recycled content while minimising the risk of perverse outcomes, and sufficient traceability to address reputational risks associated with kerbside materials ending up in the wrong place.

### Consumer/producer surveys

SSROC suggests that the EPA conduct regular confidential qualitative surveys of the producers and consumers using materials covered by resource recovery orders and exemptions.

**8. What processes could the EPA put in place when determining whether existing orders and exemptions should be amended or revoked due to environmental or human health risks?**

### Regulatory impact study

SSROC recommends that the EPA undertake and publish a regulatory impact study as a key element to inform whether to amend or revoke an order or exemption. This should be

based on transparent criteria, including the environmental, health, and economic risks associated with any amendment or revocation. Even if environmental and health considerations receive greater weighting than economic considerations, it is important that the EPA has considered all potential impacts from regulatory change to be able to make a balanced and considered decision, and demonstrate to industry that decisions are not made in isolation from potential systemic impacts.

### Revocation of existing orders and exemptions

SSROC includes the following to exemplify some of the critical shortcomings of the current regime.

The EPA's decision to revoke the Mixed Waste Organic Outputs (MWOO) Resource Recovery Order and Resource Recovery Exemption in October 2018 highlights some key limitations of the current regulatory system. The order/exemption permitted recovery of organic matter from household waste to be used for soil amendment to agricultural land, in plantation forests and to rehabilitate mine sites. The EPA made its revocation decision after research that questioned the beneficial use of the material and indicated ongoing risks associated with physical and chemical contaminants.

The EPA revoked the order/exemption with 24 hours' notice given to industry members and affected NSW councils. It impacted a number of different industry participants:

- the end-users who rely on the product and have stockpiled MWOO material;
- the Alternative Waste Treatment (AWT) industry; and
- local councils who have contracted AWT businesses as a means of diverting waste from landfill, for terms that are often 10 years or more.

While the EPA's transitional funding packages (the AWT Local Council Transition Fund) have sought to ameliorate some of the immediate impacts of the revocation, the process undertaken has attracted harsh criticism from industry members and local government. Those reliant on the order/exemption were given little notice of the revocation and not given a formal opportunity to make submissions on the decision.

Industry has also criticised the EPA's failure to share information both in relation to the initial research and decision to grant the MWOO order/exemption and the later decision to revoke them. The research report upon which the decision was based did not become publicly available until many months after it was first published. All relevant information which affected the decision was not disclosed until much later.

The lack of transparency and the resultant uncertainty with respect to resource recovery orders and exemptions have undermined confidence amongst industry players, financial institutions, local government, end-users and the general public. While the EPA is empowered to make decisions to protect the environment and human health, decisions such as these adversely affect whole businesses and should be made in a timely manner with full participation or awareness of the industry. Moreover, the MWOO example also highlights the need for a rigorous scientific process in determining an order or exemption that could have an impact on the environment including process for separation of input waste streams. For any higher risk projects, it may be appropriate to have trial approvals and extended pilot projects.

Industry members may be reluctant to invest in alternative waste technologies or products if their licence to operate could be revoked overnight, especially given that amortisation of the capital costs of many facilities/projects infrastructure is calculated to take 10 years or more.

SSROC recommends that the POEO Act or Regulations are amended to include formal processes that the EPA must follow when making decisions that may potentially amend or revoke a resource recovery order or exemption. These procedures should include an opportunity for holders of affected orders or exemptions to make formal submissions, and these submissions be considered prior to decisions being formalised.

**9. How could the framework be strengthened to ensure responsibility along the whole supply chain – waste generator, transporter, processor, transporter and consumer?**

See response to question 7 above.

**10. What are the strengths, weaknesses and challenges of using the waste classification guidelines and definitions in the context of operating within the resource recover framework?**

The waste classification system was developed primarily to group wastes to manage their risks for disposal in landfill. However, as innovations in technology and collection systems continue to advance, and the NSW Government sets ever more ambitious targets for waste minimisation and resource recovery, SSROC recommends that the waste classification system be reviewed based on a resource risk-based approach, especially for materials which can be incentivised or required to be separated for recovery.

## Conclusion

Thank you for the opportunity to comment on the Resource Recovery Framework issues paper. SSROC acknowledges the importance of the regulation of processes for waste management and resource recovery. This review presents an opportunity to update the framework to make it fit for achieving a circular economy in a sustainable and economically beneficial way, bringing long-term benefits to NSW across all the facets of sustainable development.

## ATTACHMENTS

*Attachment 1: Legislative and Regulatory Reforms for Achieving a Circular Economy*, Clayton Utz (2021). Commissioned by SSROC.

*Attachment 2: Legislative and Regulatory Review Stakeholder Consultation Summary*, Elton Consulting (2019). Commissioned by SSROC.

*Attachment 3: Sydney Waste Data*, Arcadis (2021). Commissioned by SSROC.

## ENDNOTES

- <sup>i</sup> NSW Waste and Sustainable Materials Strategy: A guide to infrastructure needs, 2021. Accessed at: [https://www.dpie.nsw.gov.au/\\_\\_data/assets/pdf\\_file/0008/385730/NSW-Waste-and-Sustainable-Materials-Strategy-A-guide-to-infrastructure-needs.pdf](https://www.dpie.nsw.gov.au/__data/assets/pdf_file/0008/385730/NSW-Waste-and-Sustainable-Materials-Strategy-A-guide-to-infrastructure-needs.pdf)
- <sup>ii</sup> As reported by Sydney RID Squad via email in March 2022.
- <sup>iii</sup> *LGNSW Draft Submission on the Review of the Product Stewardship Act 2011, including Television and Computer Recycling Scheme*, June 2018.
- <sup>iv</sup> *ibid.*, p 8.
- <sup>v</sup> SSROC Submission on the *Review of the Product Stewardship Act 2011, including the National and Computer Recycling Scheme*, July 2018.
- <sup>vi</sup> Available at: <http://www.environment.gov.au/system/files/resources/3df56596-07f1-49e5-b48d-bf020b38fb2c/files/product-stewardship-act-review.pdf>.
- <sup>vii</sup> *An assessment of achievements of the WEEE Directive in promoting movement up the waste hierarchy: experiences in the UK*, Waste Management, 15 March 2019, Volume 87, pp 417-427, available at <https://www.sciencedirect.com/science/article/pii/S0956053X19300686>.
- <sup>viii</sup> [https://www.epa.nsw.gov.au/-/media/epa/corporate-site/resources/waste/20yws/gsc\\_submission\\_to\\_minister\\_s\\_august\\_2019\\_letter?la=en&hash=4FE0D4249EC3E9FE136A36845DEC93CA6A0DCA00](https://www.epa.nsw.gov.au/-/media/epa/corporate-site/resources/waste/20yws/gsc_submission_to_minister_s_august_2019_letter?la=en&hash=4FE0D4249EC3E9FE136A36845DEC93CA6A0DCA00)
- <sup>ix</sup> *Waste Reduction and Recycling Act 2011* (Qld), section 173B.
- <sup>x</sup> *Waste Reduction and Recycling Act 2011* (Qld), section 173C.
- <sup>xi</sup> California had a legislative target of achieving no less than 75% recycling, composting or source reduction of solid waste by 2020. To meet this objective legislation was introduced in 2011 to establish a mandatory commercial recycling program and in 2014 this program expanded to include organic waste. The legislation requires all businesses and large residential dwellings generating more than 4 cubic yards of commercial solid waste per week to arrange:
- i. to separate recyclable materials from solid waste and subscribe to a basic level of recycling service that includes collection, self-hauling or other arrangements for the pickup of the recyclable materials; or
  - ii. to subscribe to a recycling service that may include mixed waste processing that yields diversion results comparable to source separation.
- The state legislation requires each Californian jurisdiction to implement the two programs, include enforcement provisions, annual monitoring mechanisms to identify non-compliant businesses and a reporting system. These mandatory programs are in effect implemented in each city's respective municipal codes.
- <sup>xii</sup> *Sydney Waste Data Report*, Arcadis (2021). Commissioned by SSROC.