



Mr Tony Chapel
Chief Executive Officer
NSW EPA
Locked Bag 5022
Paramatta Square NSW 2124
By Email: sustainableconstructionpep@epa.nsw.gov.au

2 April 2025

Dear Mr Chapel

Re: Sustainable Construction Protection of the Environment Policy (PEP)

Thank you for the opportunity to provide feedback on the *Sustainable Construction Protection of the Environment Policy (PEP)*, and also for Ms Bronwyn Isaac's presentation to our NSW Resource Recovery and Market Development Working Group on 12 March 2025. The Waste Management and Resource Recovery Association of Australia (WMRR) is the national peak body representing Australia's \$17 billion waste and resource recovery (WARR) industry. With more than 2,300 members from over 410 entities nationwide, we represent the breadth and depth of the sector, including representation from business organisations, the three (3) tiers of government, universities, and Non-Government Organisations (NGOs), including research bodies. In NSW, WMRR represents over 750 individual members from more than 130 entities.

The NSW EPA and WMRR in theory, share the same vision of success wherein net zero targets are achieved, and emphasis is placed on beyond end-of-life material management and reinvestment of valuable resources back into the productive economy, in order that less can be used for longer and carbon impacts mitigated. As an industry that remanufactures, recycles, reprocesses and recovers energy and materials to reinvest back into the productive economy, diverting valuable materials from landfill, it is our strong view that the WARR sector is intertwined with all other industries, presenting a huge opportunity to assist in reducing Australia's carbon footprint and creating a safe circular economy. However, key to success is robust regulation and genuine government commitment to drive circularity and behavior change.

According to the most recent EPA data, NSW generates 22.4 million tonnes of waste each year with a resource recovery rate of 66%. As noted in the Centre for International Economics' Report *Protection of the Environment Policy (Sustainable Construction)*, the overall NSW recycling rate is primarily driven by a strong 80% recycling rate in the construction industry. Currently, the playing field for virgin and recycled content is not an even one (1)– with recycled and remanufactured content continuing to be considered as a 'waste' material under the existing *Resource Recovery Framework* leading to operational, regulatory and market constraints for those products sourced and remanufactured from recovered materials. This results in higher compliance and operational costs for resource recovery facilities, which can eventuate in the end-products not being cost effective when compared with virgin materials.

Mechanisms such as the *NSW Waste Levy* and the Australian Carbon Credit Unit (ACCU) Scheme can provide price signals to encourage recycling and recovery of resources rather than landfilling and to reduce carbon emissions. The *Decarbonising infrastructure Delivery Policy* provides guidance to NSW Government infrastructure delivery agencies on expectations for managing upfront carbon in public infrastructure projects. DCCEEW has 'capacity building' remit for government agencies to increase recycled content in public infrastructure projects. Besides the lack of urgency to tackle these challenges within NSW, what is also currently lacking in the broader system within NSW government are regulatory and economic incentives and enforceable requirements across all government agencies and projects to both demonstrate leadership and drive uptake of recovered or recycled materials over virgin materials.

Facilitating end markets should start with enforceable tender requirements

It is crucial that domestic markets for recycled products are developed, and that government at every level leads by example through a commitment to enforceable sustainable procurement processes and policies to facilitate recycled product innovation, expand market demand and demonstrate the capability of recycled materials to

meet specifications and be ‘fit for purpose’. State infrastructure projects provide a significant market for the use of some recycled and reused materials, and WMRR believes that the PEP and its supporting policies could have gone so much further and faster- in a similar vein to the Victorian model – to place positive obligations on *tenderers* to optimise the procurement of recycled and reused products at the bid stage, with those metrics then reported on. This is extremely evident when one considers the progress in Victoria since 2018 in tackling this challenge.

Uptake of recycled, reused, reprocessed and remanufactured materials is driven by decisions at the start of the procurement process for a project. However, the PEP does not place adequate significance on this and fails to place any positive requirements at this initial stage. Instead, a *Recycled Materials Plan* is required in Stage 2 of the project, and reference to procure recycled materials on an “if not, why not” basis simply gives weight to rationales that cite the use of recycled and reused materials as being too risky, unproven, too expensive or unavailable – particularly at this stage of the project when the contract has already been awarded and budgeted. It is too little too late and fails to drive the positive consideration and uptake of recycled materials that are key to reducing emissions.

A missed opportunity to mirror the success of the Victorian model

The overarching problem that the PEP seeks to address is that environmental impacts including greenhouse gas (GHG) emissions and waste generation are not fully accounted for in decisions about infrastructure projects and infrastructure policies made by NSW Government agencies. Whilst it is pleasing that the link between carbon and materials is made, in WMRR’s view, it is disappointing that the PEP focuses on monitoring and reporting the status quo, and does not incentivise or set clear requirements for the increased resource recovery or carbon abatement needed for NSW to achieve its stated desire of a circular economy.

It is not clear to WMRR why the PEP does not extend to requiring contractors – at the bid (or business case) stage – to meet recycled or reused content thresholds or demonstrate optimisation. Instead, the PEP gives effect to the *Waste and Sustainable Materials 2041 (WaSM)* Statement of Intent that requires agencies to preference the use of recycled materials on an ‘if not, why not?’ basis – which lends itself to defeat on grounds of costs efficiency and perceived product risk. This is very different to the Victorian government’s approach – to harness recovered resources and direct them into Victoria’s \$100 Billion Big Build of transport infrastructure - which demonstrates how government can move beyond simply monitoring and reporting, and drive changes in procurement behaviour by construction contractors through explicitly requiring the use of recycled materials from the outset.

The Victorian approach of *ecologiQ* and the *Recycled First* Policy has identified an area of opportunity – major transport infrastructure – and places requirements on all tenderers for those projects to optimise recycled and reused content, and report on it. This approach means that an incentive is placed on all tenderers in the transport construction space to seek out and develop new solutions for the market, which in turn, drives increased investment in innovative approaches and product development.

Since 2018 Victoria’s *Recycled First* Policy requires tenderers on Victorian major transport projects to demonstrate within their bid how they will optimise the use of recycled and reused materials at the levels allowed under current standards and specifications. Innovation is encouraged as tenderers can trial new innovative products or opportunities to boost recycled and reused material quantities within existing standards and specifications. Successful tenderers must report against their *Recycled First* commitments during delivery. This ensures recycled and reused materials are considered over virgin materials, whilst promoting continuous improvements to transport standards and specifications and research and development, to actively develop new markets for recovered products to be used, and proven, in transport infrastructure. Whilst the *Recycled First* policy requires tenderers on transport projects to optimise their use of reused and recycled materials, *ecologiQ* integrates recycled content across Victoria’s transport infrastructure projects, changing the approach to technical standards and specifications and pursuing market development opportunities for emerging materials. As this has developed, Victoria is now looking beyond transport projects to all government projects.

By contrast, the PEP (seven (7) years later) does not have any obligations placed on the construction industry to seek out new opportunities or invest in alternatives as part of the process of 'winning the work'. Inevitably, this has two (2) ramifications:

1. Recycled and re-used materials have an uphill battle to demonstrate convenience, value and quality when placed against 'business as usual' procured virgin materials (which are often procured at scale for multiple projects, making them cheaper). Those recycled materials that are already cost efficient, are likely to be used anyway, regardless of the PEP. The real question comes down to what projects are doing as standard, without the PEP. For example, The Clean Energy Finance Corporation (CEFC) in 2021 found that use of fly ash in concrete mixes and using higher shares of recycled materials in road pavement can reduce costs and reduce GHG emissions. The cost reduction makes it preferable, and the carbon benefit is secondary. To some extent these are likely to be standard for all projects even if they don't undertake carbon assessments, as contractors can reduce costs using these. WMRR believes the PEP would have more beneficial measurable impact on reducing GHG emissions and increasing circularity if it was coupled with mandatory thresholds or requirements to demonstrate optimised recycling and reuse of materials by tenderers, as per the Victorian model, and to be fair NSW has had many years to achieve this.
2. Smaller construction contractors will be burdened with reporting requirements for these large-scale projects. Unlike the Victorian model, which sets the requirements at tender stage, the NSW proposal may be seen to disadvantage the competitiveness of smaller construction contractors who will not be as well resourced as larger multinationals to meet the monitoring and reporting requirements.

The bigger picture

Given the pace at which NSW and Australia is progressing towards 2030 and 2050, it is not clear why driving end market uptake of recovered resources is not considered more pressing and addressed by the PEP. The targets recently set by [Australia's Circular Economy Framework – Doubling our circularity rate \(2024\)](#) expressly pursue the three (3) targets of reducing material footprint by 10%, lifting materials productivity by 30% and safely recovering 80% of our resources by 2035. In WMRR's view, the PEP does little to promote these targets, and instead, aims to measure 'circular economy outcomes' for existing residual waste streams from the WARR sector without doing anything to support market development or innovation - which will do nothing to help design out waste in the first place.

WMRR would welcome revising the policy and regulatory frameworks in NSW - including the PEP – to go beyond reporting and monitoring existing supply chains, and instead place positive obligations on government and its contractors to meaningfully participate in the circular economy by preferencing recycled and reused materials in order to drive demand for our valuable recovered resources and limit the use of virgin materials. There is also the opportunity to further mitigate carbon and create valuable end markets for recycled products if the PEP included mandatory thresholds for additional materials.

WMRR's responses to the consultation questions can be found at [Annexure A](#). Please contact the undersigned if you wish to further discuss WMRR's submission.

Yours sincerely



Gayle Sloan

Chief Executive Officer

Waste Management and Resource Recovery Association of Australia

WMRR Responses to the submission questions:

Draft PEP		
1	Do you agree that the PEP will have a beneficial impact on NSW, providing net environmental and economic benefits as outlined in the PEP Impact Statement?	Yes, the PEP will have the beneficial impact of requiring NSW Government agencies to formally consider the opportunities to use recycled and reused materials and reduce carbon where relevant in carrying out their functions but this will capture current practice and is unlikely to influence procurement decisions as no thresholds or targets are set. The EPA is already aware from consultation with infrastructure providers that costs and risk already play a deterring role in the use of recycled material by contractors. The PEP does not address this. Much more needs to be done to truly assist NSW transition to a more circular economy and towards achieving net zero emissions. The PEP should be part of a broader package of reforms that to date have not eventuated in NSW including reforms to procurement and specifications. As is, the reporting requirements under the PEP will at best, enable a centralised dataset to be created in order that a baseline can be established for future metrics and targets, arguably this should have occurred in 2018/19 when Environment Ministers nationally resolved to do this. The PEP does not mandate recycled thresholds or set a policy to require contractors to demonstrate how they can optimise recycled and reused content. In the absence of this it is not clear how the reporting requirements will assist in promoting the uptake of recycled materials, as many may feel it simply imposing another regulatory burden on contractors to supply monitoring data which is not required when using virgin materials. To ensure an equal playing field amongst contractors and to promote innovation, tenderers for major projects incentives should be incentivised at the point in the supply chain to drive market demand for recycled and reused materials in construction. This is the point in the supply chain that can influence their purchasing decisions to preference recycled or reused material over virgin materials. Placing mandatory requirements on all tenderers to meet minimum thresholds, or to optimise the use of recycled material and then report back on the achievement of these metrics if successful, would yield more positive and beneficial environmental outcomes than simply reporting on what is currently being done. This has been clearly demonstrated in other jurisdictions.
2	Do you agree with the scope of requirements in the draft PEP?	Accurate data is crucial in establishing and refining appropriate policy and regulatory settings. WMRR appreciates that introducing the PEP is expected to have the positive impacts of influencing the way projects may preference recycled content, improve compliance with the <i>Decarbonizing Infrastructure Policy</i> and provide baseline metrics for future reporting. The PEP centralizes reporting to the NSW EPA – it does not

		mandate that infrastructure providers use particular materials or meet particular upfront emissions standards. Rather, it requires that a public authority collates particular information and has a process to show that it has given consideration to upfront emissions and use of recycled materials. WMRR concedes that the requirements for reporting the status quo are satisfactory in terms of data gathering, but as per the previous comment, recommends that the policy requires tendering parties on projects to demonstrate at the bid stage how they will optimise the use of recycled and reused materials at the levels allowed under current standards and specifications (as per Victoria's <i>Recycled First</i> policy). This would ensure that costs to report and comply are covered by the tendered price and enable smaller contractors to compete for projects without the commercial disadvantage of not being able to cost in reporting requirements.
3	Do you support the proposed scope of agency infrastructure projects to be captured by the PEP requirements?	We note that the PEP applies to public infrastructure projects undertaken by, or on behalf of, a NSW Government agency with an estimated development cost of over \$50 million for building sector projects and over \$100 million for all other infrastructure projects with aggregates, aluminum, asphalt, concrete and steel identified as the recycled materials to be considered at the initial project 'business case' stage and later, reported on in Stages 2 (planning approval, design and procurement) and 3 (completion). WMRR appreciates the scope of projects has been set to help manage the significant reporting and administering costs for the NSW EPA, which in itself highlights the additional burden this approach could place on projects. It is extremely disappointing that projects below this threshold are not captured given the extreme volume of them, and highlights that the PEP will do little to drive overall behaviour change to 'normalise' the use of non- virgin materials. As stated above, WMRR believes the PEP does nothing to incentivise or encourage increased material productivity. It does not place minimum thresholds on the use of recycled content, nor is it driven by a requirement for tenderers to 'optimise' recycled or reused content (as per the Victorian <i>Recycled First</i> policy for transport infrastructure). WMRR would support the scope being extended to cover successful tenderers bidding for these projects to reporting on such commitments. This would drive market demand and confidence in recycled and reused construction materials.
4	Are there any other matters that the PEP should cover to promote the sustainable construction of public infrastructure projects?	It is surprising that the PEP does not include reporting requirements on the use of recycled organics. Major infrastructure projects inevitably require landscaping supplies, and whilst these materials may require ongoing supply beyond the initial 'upfront carbon' reporting stages, reporting on their successful use could have a positive effect on market demand and encourage increased procurement of recycled organics by all levels of

		government (including local councils). Given the FOGO mandate and targets to divert organics from landfill, this would be a complimentary approach to existing NSW policies and regulation.
5	Do you have any other suggestions for improving the draft PEP?	The CIE estimates that NSW Government infrastructure projects under construction have upfront carbon emissions of over four (4) million tonnes in 2023-24, and a cost of carbon emissions of over \$500 million. This is equivalent to more than three (3) per cent of total NSW GHG emissions. The total cost to NSW from landfilling building and construction materials, glass, and plastics in 2023-24 is \$121 million. Hence, there are clear government cost savings to be had by increasing uptake of recovered resources. WMRR again stresses that the governments need to prioritise decarbonising at the start of the supply chain - in the planning and tendering processes to drive market development, demonstrate product quality and performance, and influence purchasing and design decisions.
PEP reporting guidelines – upfront carbon		
6	Do you support the proposed approach for agencies to report on their compliance with the Decarbonising Infrastructure Delivery Policy?	As per WMRR's comments in this submission, there are benefits of capturing baseline metrics however, recording the status quo will not help promote resource recovery and circularity targets. The time and resources that have been utilized to this point in time in developing the PEP should have been spent on developing an integrated approach with practical tendering, actual targets and clear specifications developed to actually drive uptake.
7	Do you support the proposed frequency and timing of reporting for upfront carbon?	WMRR understands that reporting is required at the three (3) stages of the project lifecycle, noting that these stages align to when key decisions regarding the business case, planning, purchasing and construction takes place. WMRR would like to see reporting complimented by NSW policy requirements to optimise the capture of upfront carbon set at the tendering phase.
8	Would it be feasible and appropriate to collect as-built data on upfront carbon annually during construction (rather than only at project completion) as is proposed for the use of recycled materials?	NSW needs to consider the burden v the benefit it would gain from taking this approach, given that competition for construction is fierce between states and the cost of construction continues to escalate dramatically at this time.
9	Do you think that there is further guidance needed to support upfront carbon reporting? If yes, please describe what else is required.	WMRR would like to ensure that the direct link between the carbon abated by using recycled material (as opposed to virgin materials) is captured by the reporting. The PEP provides an opportunity to capture the benefits of recycling and reuse beyond the initial carbon abatement associated with the amount of material collected and diverted from landfill. For example, the benefits of using <i>reprocessed material</i> in terms of offsetting greenhouse gas emissions associated with processing and transporting a tonne of <i>virgin</i> material could also be captured.

PEP reporting guidelines – recycled materials		
10	Do you support the proposed approach for agencies to report on how they will preference recycled materials in public infrastructure projects?	WMRR notes that the PEP sets no requirements during the planning stage for projects, with a Recycled Materials Management Plan required at Stage 2 (construction). If uptake of recycled content is to be increased, the government needs to do much more to ensure that recycled content thresholds are included at the initial planning stages, as the use of these materials may impact the project budget and determining the availability of materials that can be supplied may impact project delivery. Arguably, bringing recycled materials reporting requirements into Stage 2 of a project creates increased possibilities for project contractors to find reasonable cost, availability and timing justifications for not choosing recycled. Hence, WMRR reiterates its earlier commentary that it would be more beneficial to circular outcomes if the PEP was complimented by integrated policy setting thresholds and requirements for tenderers in government infrastructure projects to optimise recycled and reused content at the bid phase.
11	Do you support the proposed approach for agencies to report on their use of recycled materials in public infrastructure projects?	To effect real change, and drive market demand for recycled materials, WMRR would like to see the NSW Government move forward with the next step of mandated recycled material thresholds into public infrastructure projects, and uptake of greater specifications that include non- virgin materials.
12	Do you support the proposed approach for agencies to report on the reuse of materials in public infrastructure projects?	Yes, as above.
13	Do you support the proposed frequency and timing of reporting for reused and recycled materials?	To some extent, noting WMRR's comments that emphasis should be placed on encouraging tenderers to meet reuse and recycled material targets at the bid phase.
14	Table 5 in the draft Sustainable Construction PEP Reporting Guidelines provides a list of product groups containing recycled materials for the purpose of reporting. Should we include the following additional product categories containing –	Yes. WMRR would support adding these additional groups, however it needs to go well beyond simply reporting on them. The National Waste Database reports on disposal by material type based on reported figures from the NSW demonstrate that building and demolition materials and metals already have a very high recycling rate, whilst plastics and textiles have some of the lowest recovery rates across all materials. It follows that the government should look to identify and promote opportunities to recover more of these valuable materials for reinvestment into infrastructure projects. Given the scope of end products that can be remanufactured from these streams that can be incorporated into infrastructure projects, it makes sense to include them. It would particularly make sense for organics to be included as a product group, noting the key metric under the 2030 targets for NSW to halve the amount of organics sent to landfill.

15	Are there any other product groups we should include for the purpose of reporting, and why do you think they should be included?	WMRR supports reporting and monitoring of all materials that have NSW Resource Recovery Orders and Exemptions in place, however this must be as seamless as possible. As NSW gains pace in moving towards increased circularity, it is hoped that new materials may soon be identified for reuse in construction settings – for example incinerator bottom ash aggregate (IBAA) from EfW Facilities. Reporting and monitoring opportunities for these materials within existing supply chains will be invaluable in driving markets for these recovered materials, particularly if coupled with recycled content thresholds in the procurement and tendering phase. In order to understand opportunities that exist there must also be a level of reporting of virgin materials, as well as an understanding of how much exists withing certain distances, for example it is a number of years since NSW investigated quarry material availability. If it was known that there was only a certain volume available in coming years, this would assist in future planning and investment of both the construction industry and the WARR industry.
16	Do you know of any publicly available sources, other than Environmental Product Declarations, that provide information on the recycled content of construction materials? If yes, what are they and where can they be found?	This question does not make sense. For example, aggregates purchased from licensed construction recyclers are 100% recycled content. Licensed recyclers and remanufacturers of all types make products to specifications depending on their inputs and warrant in accord with their specifications and sales.
17	What further guidance is needed to support recycled materials reporting?	WMRR queries if will we have virgin material reporting? The ongoing burden placed by government on those that recycle and not on those that extract and use virgin material is yet another barrier to levelling the playing field. What consideration has been done to assist in removing these burdens from recyclers to increase uptake? Placing responsibility and the burden of reporting on the end-user directly is likely to discourage uptake.
Other feedback		
20	Do you have any other feedback regarding the draft PEP, reporting guidelines, and/or impact statement?	As per WMRR's comments in the cover letter, the proposed PEP is a disappointing place to find ourselves after many years of knowing the challenge, it would have far more impact if it was coupled with a NSW Policy incentivising the optimised procurement of recycled and reused materials in construction projects – similar to the Victorian approach which has been well underway for a number of years and NSW could have developed also over the proceeding five (5) years. This would have an increased chance of achieving the beneficial impacts of fostering markets for recycled and reused materials in the construction sector, and product driving innovation.