



2 March 2023

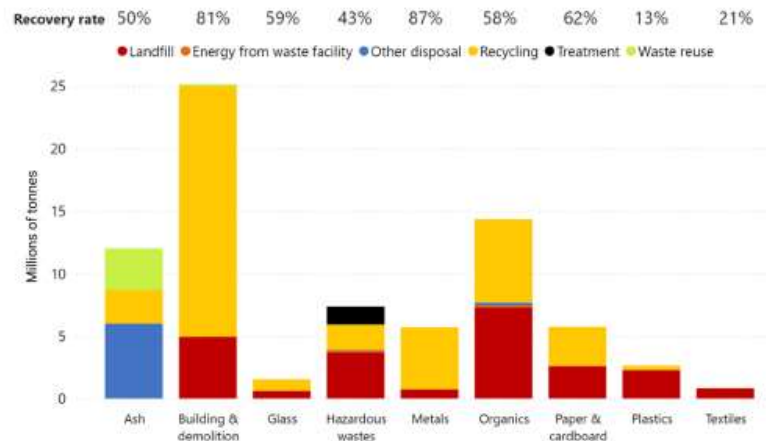
To Whom It May Concern

RE: Response to *Going circular in clean energy issues paper*

Thank you for the opportunity to inform the development of a circular economy plan for the clean energy sector in New South Wales (NSW).

The transition to a more circular or closed loop economy in Australia has been slow, and it therefore pleasing to see planning towards this for the clean energy sector in NSW. However, it is important to note that the vast majority of waste in Australia is construction and demolition waste, followed by organics (*National Waste Report 2022*, see below). Plastic is also a big issue; the below figures measure waste by weight, and therefore the volume of plastic is much larger than it appears in comparison. While it is admirable to plan for end-of-life for clean energy technologies, end of life is decades in the future for many of these assets – and should also be prolonged as I will argue in this submission. It is far more critical to tackle waste streams such as plastic and organics in the short term, as they are more voluminous, harder to reuse or treat, and create environmental damage and greenhouse gas emissions.

Figure 31 Waste generation and management method by material category, Australia 2020–21



Source: National Waste Report 2022¹

¹ National Waste Report 2022, DCCEEW, 10 February 2023 p. 42.
<https://www.dcceew.gov.au/sites/default/files/documents/national-waste-report-2022.pdf>

In response to the issues paper and the question of how NSW could improve the sustainability of the clean energy transition, I would like to make three key points:

- At the top of the waste hierarchy is the principle of waste avoidance – this encompasses design for durability and repair, and actions to extend the life of a product. It also includes the concept of ‘making do’. This concept should be adopted in planning for NSW’s clean energy transition – making the most of what we already have, and extending the life of existing assets rather than throwing away resources to switch to something new. This includes consumer products, as well as the network. On the consumer side, for example, the concept of ‘electrify everything’ does not consider the resource impact and implications of millions of new assets and the tonnes of materials required for sufficient supporting infrastructure, or the waste created by mass dumping of old assets. On the network side, this will include smart ways to extend the capability of our current network, such as BSGIP’s award-winning dynamic operating envelope (DOE) technology. This technology is a cost-effective way to increase network hosting capacity through the orchestration and co-ordination of smart software rather than by building more poles and wires.²
- The key to diverting resources from waste streams is value – NSW must be prepared to intervene in the market to ensure there is an economic driver towards responsible treatment of assets. In practice, this may mean regulating to tip the cost-benefit equation away from disposal and replacement towards longer-term investment in more durable, better quality, repairable technology. This can be achieved, in consultation with industry, through levies (including on landfill) and procurement policies, as well as clear regulation to identify re-used or recycled resources as preferential. Looking at the table on the previous page, metals are an excellent example of what happens when a material is valued – it does not enter the waste stream in high volumes, and when it does, it achieves high levels of recycling. Plastics are at the other end of this spectrum – new plastic is cheap and it therefore has low value as a material, and ends up in landfill.
- NSW also has an opportunity with this strategy to identify desirable qualities in the infrastructure, assets and products that support the clean energy transition in that state. By specifying that products must be designed for durability, repair and disassembly, NSW can signal that it is not interested in ‘race to the bottom’ procurement (cheapest option), but values good quality, well-made products. In doing so NSW can also help to support the growth of Australian-made products that meet these criteria, and foster a manufacturing industry that brings jobs and skills.

Once again, I appreciate the opportunity to respond to this consultation and if you would like any further information about this submission, please feel welcome to contact me.

Kind regards
Alix Ziebell

² BSGIP evolve project: <https://bsgip.com/research/evolve/>