



30 September 2022

Mr Josh Wilson MP
Member for Fremantle
Chair of Joint Standing Committee on Treaties
Parliament House
Canberra ACT 2600

By email: jsct@aph.gov.au

Dear Mr Wilson

Additional information requested on notice – Inquiry into the free trade agreement between Australia and the United Kingdom

Thank you for the opportunity to respond to your request for further information on the MCA's point of view on the circular economy at the committee hearing on 20 September 2022.

Question

Josh Wilson MP (ALP) Chair: I'll ask you to take this on notice simply because of the time. This committee was fortunate to meet with members of the European Parliament's international trade committee yesterday. One of the topics that came up was the circular economy and the recognition that as we move into the energy transition and there's greater use of energy metals in new ways, that there's enthusiasm that that happens in a way that is as circular as possible – not least because these resources are finite in themselves the demand for them is going to be enormous. So finding ways that we can use them and reuse them will be really important from a resource management point of view as much as from an environmental point of view. So if there's anything you can provide to the committee from the MCA's point of view on the circular economy and how the sector is approaching it would be useful, interesting for our absorption and reflection in time to come particularly as we go and look at the EU agreement down the track.

Tania Constable: Thank you chair we will certainly do that, we're very involved in the circular economy.

MCA response

Australian mining has a global reputation as a reliable, responsible supplier of minerals, metals and energy commodities to the world.

The industry's success, both now and in the future, depends upon its ability to operate in line with community expectations on environmental, social and governance (ESG) performance. This includes an emerging focus on minimising waste, reusing and recycling, and producing more with less – the circular economy.

The minerals industry is using technology to improve operational efficiencies, reduce consumption and produce more with less. A strong focus on minimising waste is supported by the development of the circular economy which is generating new opportunities to recycle and reuse the materials used and produced by the industry.

The industry is at the forefront of developing metals and minerals that used to be classed as 'waste'. This has unlocked the option of sampling waste dumps and tailings storage facilities, for example, to understand what elements are contained in waste storage areas and if these are now viable for extraction. A further opportunity that is currently under investigation is using waste materials that have carbon sequestration properties as a means of reducing Australia's net emissions.

The development of new technologies will improve operational efficiencies and the generation of mine waste (e.g. tailings). Sensor technology is allowing more selective mineral processing to improve metals recovery while reducing water, chemical and energy inputs, as well as maximising the lifespan of equipment.

Autonomous truck haulage and railway networks are improving productivity and fuel efficiency, while reducing greenhouse gas emissions.

Improving practices to minimise waste generation through increased recycling and repurposing of materials is reducing the environmental footprint of mining. The minerals industry often captures value from what might otherwise be considered waste, either as resource inputs (such as construction waste reused as road construction material) or alternatively waste to value activities (such as by-product valorisation).

The industry is working in partnership with research institutions and other sectors to enhance environmental management of wastes through their life cycle, avoiding or minimising landfill for mining consumables including waste oils and tyres. Increasingly there are emerging innovative examples such as procurement systems that provide optionality around the environmental, social and governance footprint of each item in procurement, landfill diversion companies that accept and repurpose waste, thus enabling the resource to have a next life while centrally servicing multiple mine sites in a region, and planning for nature positive closure or significant carbon sequestration assets.

While Australian mining is embracing circular principles, it must also be recognised that a circular economy cannot substantially replace the demand for mined products in the time frame required to transform the world's economies to net zero. There is a need to establish a critical mass of the metals needed for a renewable future before metals recycling can reduce the need for new mines.

Renewable energy systems are minerals intensive – for example, electric vehicles require four times as much copper as comparable models using internal combustion engines. In order to build renewable energy networks and electric transport systems on a global scale, the world will need significantly more investment in exploration and minerals development. The minerals industry has the opportunity to work collaboratively and engage across metals value chains to ensure that policy makers, product designers and finance providers recognise the inherent suitability of metals to a circular economy, and conditions are in place to prevent metal from becoming waste.

At the mine site closure stage, there is opportunity in materials re-use from deconstruction and decommissioning as well as a multitude of innovations including but not limited to pumped storage schemes, warm water to heat homes from old and disused mine shafts, 'battery' innovations from the gravitational energy in mine shafts and development of energy hub development on open pits at different elevation levels as part energy generation and storage. At the end of life, the land is left in a rehabilitated state and the agreed land use with appropriate social closure completed.

The MCA will have more to say on opportunities and efforts to further embed circular economy principles and practices in mining, and looks forward to opportunities to contribute constructively on this issue in the context of the future inquiries of the Joint Standing Committee on Treaties, including on a potential Australia-EU free trade agreement.

Yours sincerely

TANIA CONSTABLE
CHIEF EXECUTIVE OFFICER