Submission regarding the proposed Blast Furnace 6 Reline Proposal SSI-22545215 by BlueScope Steel (AIS) Pty Ltd (BlueScope)

19 April 2022

Dear Minister,

I **strongly object** to BlueScope's proposal to reline their No.6 Blast Furnace for the following reasons:

1. I object because our world is in the middle of an ongoing climate emergency and an approval of this BF6 reline would embed coking-coal use and consequent GHG emissions for many years to come. We cannot afford these extra GHG emissions, and instead Australia should be banning all new fossil-fuel developments, expansions and explorations right now.

2. I object because the coking coal that would be used in the relined BF6 will come from somewhere and inevitably would be associated very descructive mining impacts. I am particularly concerned by underground coal mining in the Sydney Water Catchment (particularly in high water-infrastructure and high ecological/biodiversity valued legislated *Special Areas*), only because I have some knowledge of associated damages in this area. However, wherever the required coking coal comes from (in NSW or QLD or elsewhere) then there are going to be terrible impacts. Moreover, I am concerned that companies like South32 will use an approval of this BF6 reline to argue that their Dendrobium coal mine extension projects should also be approved, because they have already tried to claim it as necessary even though the Independent Planning Commission in assessing their SSD project concluded in February 2021 that that was not so.

3. I object because BlueScope's EIS only considers the four options (EIS, p iii)[1]:
   – *Option 1 - Cessation of iron and steelmaking at PKSW and moving toward an import model.*
   – *Option 2 - Reline of 5BF.*
   – *Option 3 - Reline of 6BF (the project).*
   – *Option 4 - The introduction of alternative low emissions ironmaking technologies such as DRI-EAF (Direct Reduced Iron – Electric Arc Furnace).*

   Given the central argument for the need for this project hinges on producing steel to enable the necessary transition to a net-zero emissions world (EIS, p iii, my highlights)[2]:

   Steel is the world's most widely-used metal and the second most abundant construction material in the world. It is used in nearly every aspect of life and is a vital part of a modern economy. Steel is infinitely recyclable and is the most recycled material on earth. Steel is essential in the transition to a net zero GHG emissions economy, as wind turbines, solar farms, pumped hydro, hydrogen production facilities, and the necessary electrical infrastructure to support them, all require steel for their production.

   Then why did their EIS not consider the following further alternative? Option 5 – New and/or improved/enhanced EAF systems to recycle recovered scrap iron/steel and focus on steelmilling operations (rather than on raw iron-making operations). According to the Department of Agriculture,

[1] GHD (2022) *Blast Furnace No.6 Reline Project Environmental Impact Statement BlueScope Steel (AIS) Pty Ltd* 07 March 2022. Main Report. Accessed at 12541101-REP_Bluescope EIS_Rev_1.docx (nsw.gov.au)
[2] As above.

Water and Environment[3], Australia has exported an average of 1.25 Mtonne of ferrous scrap and waste each year for the last four complete financial years. Why has BlueScope not considered the option of recycling this scrap iron/steel generated in Australia that is currently sold overseas? This would supplement iron-ore-steel supply generated by BF5 and stand BlueScope in good stead long into the future. Recycling iron/steel scrap is always going to be good for the environment and good for society and further the necessary development of a circular-materials economy. BlueScope's EIS itself highlights the infinite recyclability of steel, but does not seek to exploit it! The technology is already well developed and commercial, and in operation in many places around the world. There is no excuse for not doing this. As the Grattan Institute points out (Start with Steel, p 19)[4]:

> *It is relatively easy to make low-emissions recycled steel from scrap. No reductant is required, and so the main source of emissions is the electricity used to melt the steel (in an 'electric arc furnace'). Even using coal-based electricity, recycled steel produces about one quarter of the emissions of new 'ore-based' steel made using coal.*

So why does BlueScope not even consider steel recycling and exploit this potential for the public good? Given the increasing development of renewable energy, it could even be possible for BlueScope to recycle steel with close to zero emissions. I find the framing of the EIS quite disingenuous.

4. I object because if BlueScope was genuine about its social and corporate responsibilities in a climate-heating world, then it would itself be seeking to restrict sales of its GHG-intensive steel products to the minimum necessary, until such time as it can make steel more responsibly. That is, BlueScope would engage in discussions with the wider community about what are society's real steel **needs** in the near term, and only supply to meet those needs. That would allow for supply to manufacturers of renewable-energy infrastructure and social housing and the like. But surely it would not include supply of 19 km of steel roofing for frivolities such as the Sydney Stadium refurbishment![5] What is shameful about this is that this wastefulness was by the NSW government itself.

5. I object because as an ordinary taxpayer, if you approve this BF6 reline, then no doubt taxes I pay will be contributing to covering the costs of the project – to the tune of $700 million or even more – because BlueScope will be able to offset the costs. This is unfair to me and many many other ordinary tax-paying Australians! I understand that the majority of Australians want effective action to deal with climate heating, and yet our taxes subsidize our own destruction. Again, I say, this is unfair. We are only seeing more and more, the devastating effects on ordinary individuals and their families and communities in the form of floods, fires, inescapable unliveable heat. I note that BlueScope has paid no tax in the last seven financial years for which data is publicly available (2013/14 to 2019/20)[6]. Instead of approving this BF6 reline, instead I ask you as a NSW government minister to pressure your federal government MPs and Senators colleagues to institute tax reform that would see an urgent phasing out of the capacity of businesses/corporations to offset the costs of items or infrastructure that generate scope-1 GHG emissions (before 2025). In such a policy context BlueScope would likely not propose the reline of its BF6.

Minister, I ask that you **reject** this proposal. At the very least you need to take our climate crisis seriously. This means that if steel is to be in short supply in the near future, then government needs to work with community to prioritise and ration its use. Governments themselves should be thrifty and postpone non-

---

[3] Annual average exported ferrous waste and scrap amounts calculated based on 2017-18, 2018-19, 2019-20, 2020-21 reporting years using data from abs-export-data-collation-june2021.xlsx (live.com)

[4] Grattan Institute, Tony Wood & Guy Dundas (May 2020) *Start with Steel: a practical plan to support carbon workers and cut emissions.* https://grattan.edu.au/wp-content/uploads/2020/05/2020-06-Start-with-steel.pdf

[5] Allianz Stadium rebuild topped with 19km of western Sydney steel (smh.com.au)

[6] Based on data from https://data.gov.au/dataset/ds-dga-c2524c87-cea4-4636-acac-599a82048a26/details

urgent non-essential infrastructure. We need to live within our means, and learn to live within the real constraints imposed on us by our destabilised climate. I would support measures and policies that would assist BlueScope in accessing and ensuring scrap steel/iron supply (such as a ban on Australian metal exports). I would support tax incentives that would help BlueScope shift its operations to completely renewable-energy based sooner than it currently plans. But I very strong object to this proposal which seems to lack even a limit on how long and for producing how much steel, BlueScope could use their proposed relined BF6.

Thank you for considering my submission. I note that I have written it without considering all of the other adverse impacts related to air quality or water quality. It is not that I do not care about those as well, it is just that I have run out of time and capacity to write.

Dr Deidre Stuart
(resident of Wollongong)

OTHER NOTES:

From National Waste Report 2020 (awe.gov.au)

P17

Table 6 Indicative scrap commodity prices ($ per tonne, product leaving a material recovery facility)

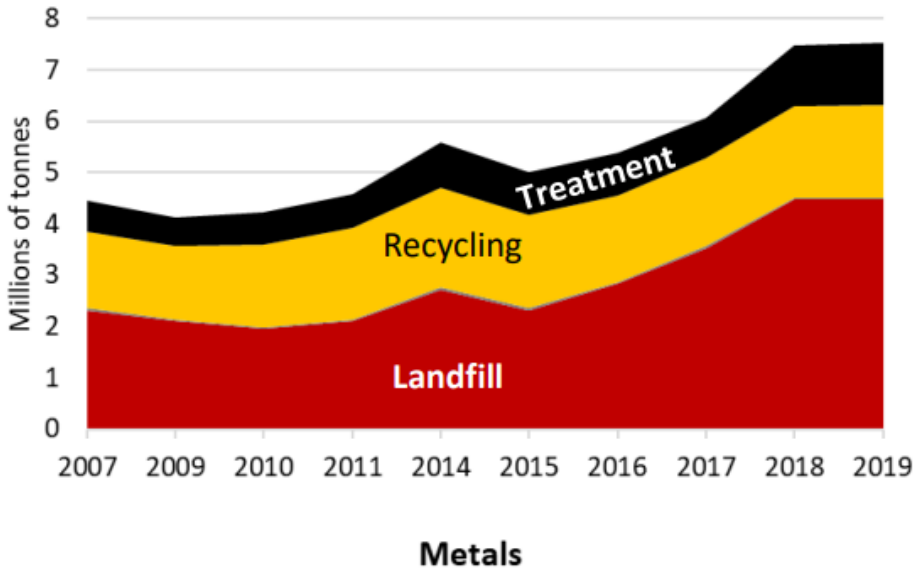
Commodity	June 2017	June 2019	June 2020
Green glass	not available	$30	$30
Green glass from container deposit schemes	not available	$100	$75
Mixed glass from material recovery facilities	$0	-$30	-$30
Steel	$216	$150	$97
Aluminium	$1,249	$1,100	$931
Mixed paper and cardboard	$124	$0	$0
Newsprint and magazines	not available	$187	$95
Old corrugated cardboard	$205	$196	$105
PET plastic (code 1)	$575	$400	$296
HDPE plastic (code 2)	$575	$500	$345
Mixed plastics (codes 1-7)	$325	$65	$47

Source: Envisage Works analysis based on various sources

P34

Figure 33 shows the trends in generation and management for some important material categories. These are addressed in the sections following. End-of-life tyres are generally included in the 'hazardous waste' category because of fire risk, but in this chapter they are addressed separately (Section 8.12) so are excluded from hazardous waste.

Figure 33 Trends in the generation and management methods of key material categories, Australia 2006-07 to 2018-19



P39

8.7 Metals

In 2018-19 about 5.60 Mt, or 223 kg per capita, of metal waste was generated (down from 5.71 Mt in 2016-17). The recycling rate of 90% was higher than any other material category. Metal recycling is well-established in every state and territory but the industry has suffered from falling global prices in recent years. The scrap metals industry depends on export markets – domestic reprocessing of aluminium and tin-plated steel is no longer occurring. Some toxic (e.g. cadmium and cobalt) or precious (e.g. gold and palladium) metals are landfilled in composite material products such as electronic waste.

Figure 33 (p.34) shows the trend in metals waste generation and management method from 2006-07 to 2018-19. Waste generation increased by about 39% and the recycling rate increased slightly from 86% to 90% (3.46 Mt to 5.04 Mt).

Metals material flow analysis

A pilot MFA was prepared to quantify the system processes and flows for metals. The results are illustrated in Figure 35.

Australia consumed about 8.09 Mt of metals in 2018-19, of which 86% was steel, 8% aluminium, and 6% all other metals. The estimated recycled content of metals into use was 37%.

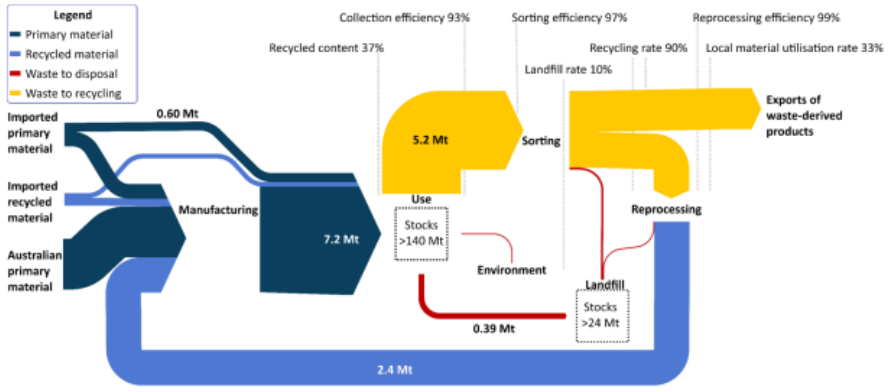
Stocks of metals in use were estimated at 143 Mt, of which 78% has accumulated in the built environment, 18% in transport, and the rest in other long-lived products.

Table 12 Circular economy indicators for metals, Australia 2018-19

Indicator	Value
Recycled content	37%
Collection efficiency	93%
Sorting efficiency	97%
Reprocessing efficiency	99%
Recycling rate	90%
Landfill rate	10%
Local material utilisation	33%

The collection efficiency (diversion to sorting from landfill) is high at 93%, reflecting extensive collection systems for steel, aluminium and copper. More than half this material is exported. System losses during sorting and reprocessing were low, at around 3% of collected metals in aggregate.

Figure 35 Metal flows in Australia, 2018-19



P40

Of the 90% of metals recycled, all of it was sent back to smelters and so re-enters the pool of metals in use. No significant diversion of metals into non-metal products was identified.

About 10% of metals entering the waste stream were disposed to landfill. Accumulated stocks of waste metals in landfill are at least 24 Mt nationally.

P124

Figure 17 Exports of core wastes by material category, Australia, 2006-07 to 2018-19

Material category (kt)	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	CAGR
Glass	2	2	2	2	2	3	2	2	2	11	15	23	16	21.3%
Metals	1,575	2,011	1,981	1,852	1,874	2,432	2,401	2,695	2,466	1,965	2,141	2,446	2,637	4.4%
Paper and cardboard	1,105	1,332	1,265	1,497	1,384	1,466	1,567	1,497	1,497	1,535	1,453	1,317	1,112	0.1%
Plastics	99	118	197	147	150	175	170	171	201	203	182	159	187	5.4%
Textiles	1	0	1	0	0	36	78	89	91	90	94	50	53	44.1%
Tyres	9	39	61	70	105	136	107	125	100	60	70	90	115	24.1%
Total	**2,789**	**3,502**	**3,507**	**3,568**	**3,516**	**4,247**	**4,324**	**4,579**	**4,357**	**3,863**	**3,955**	**4,084**	**4,120**	**3.3%**

Can calculate that for last five years in the table above for metal, EXPORT was 2331 kt on average each year.