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Dear Rami and Jennifer

### ACCC/ASIC

- 1. We act for Lock the Gate Alliance and the Plains Clan of the Wonnarua People (PCWP). Lock the Gate is a national grassroots organization made up of thousands of supporters and many local groups who are concerned about coal mining, coal seam gas and fracking. Their members come from all parts of Australia and include farmers, First Nations peoples, conservationists and urban residents. The Plains Clan of the Wonnarua People are authorised applicants on behalf of the Native Title Claim Group of the (Plains Clans of the Wonnarua People) and a Prescribed Body Corporate to manage any native title determinations or other lawful business lodged within our authorised boundaries (registration ICN number is 8700). We are bringing this complaint with the support and assistance of ClientEarth, an environmental charity that uses the law to protect the earth.
- 2. We are writing on behalf of Lock the Gate and PCWP to ask that you investigate statements made by Glencore PLC and reproduced on websites in Australia by Glencore Holdings Pty Ltd and its subsidiaries that are involved in the business of mining coal in Australia. **Annexure A** attaches the complex corporate structure of Glencore and its related companies worldwide.
- 3. In essence, Lock the Gate and the PWCP would like an investigation into whether Glencore PLC's statements reproduced on Glencore's Australian website comprise misleading or deceptive conduct. The relevant statements appear on its website and in climate reports and are *about its net zero commitments* made under s 18 of the *Australian Consumer Law* and/or s 1041H of the *Corporations Act 2001*. Specifically, they include a number of representations (set out in **Annexure B**) which, alone or in combination, convey that:

- (a) Glencore aims to be a net zero total emissions company by 2050;
- (b) Glencore is committed to align its targets and ambition with the goals of the Paris agreement and laying the foundations for a low carbon future;
- (c) Glencore is committed to a 15% reduction in emissions by 2026, and a 50% reduction in emissions by 2035, aligned with the 1.5C scenarios set out by the International Panel on Climate Change (IPCC) and the International Energy Agency (IEA).
- (d) Glencore's 2035 target is aligned with the IEA NZE 2050 roadmap scenario (IEA NZE 2050)<sup>1</sup> which is consistent with IPCC SSPI-1.9<sup>2</sup>;
- (e) Glencore will responsibly reduce or deplete its coal portfolio over time;
- (f) Glencore recognises the unique role indigenous people play in Australian culture and respect their customs, interests and rights, and seek to engage openly and honestly with community to address concerns and develop solutions.

### (together the Representations)

- 4. The representations are misleading or deceptive or likely to mislead and deceive consumers or investors in circumstances where:
  - (a) Glencore has no immediate plans to decarbonise in Australia and is in fact expanding its coal production in Australia which is likely to increase its emissions;
  - (b) Glencore's emissions do not appear to include all methane produced by their mines, and if included would require greater cuts to their emissions;
  - (c) Glencore's net zero strategy is not aligned with a 1.5 degree pathway outlined by the IPCC, as it uses IPCC figures relating to fossil fuels and other industries rather than coal, which is the main source of emissions in Glencore's business
  - (d) Glencore's net zero strategy is not aligned with IEA NZE 2050 as it envisages new coal production after 2021, nor are their emissions reductions aligned with IEA NZE 2050
  - (e) Glencore has not shown respect for Aboriginal culture, custom, interests and rights or sought to work openly and honestly with the Aboriginal community in developing solutions in relation to the Glendell open cut mine expansion plan (together the **Claims**)
- 5. In particular, Lock the Gate and PWCP is referring this matter to both regulators given your focus on green claims. The ACCC Compliance and Enforcement Priorities for 2022-2023 include "consumer and fair trading issues in relation to environmental claims and sustainability". We note the ACCC Chair Gina Cass-Gottleib recently in her speech to the National Consumer Congress stated: "This priority is aimed at addressing concerns that businesses are falsely promoting environmental or green credentials to unfairly capitalise on increasing consumer demand for products or services with these

<sup>&</sup>lt;sup>1</sup> IEA Net Zero by 2050: A Roadmap for the Energy Sector.

<sup>&</sup>lt;sup>2</sup> The IPCC's lowest emissions scenario, SSPI-1.9 represents the low end of future emissions pathways, leading to warming below 1.5°C in 2100 and limited temperature overshoot of 1.5°C over the course of the 21st century: <u>Working Group I contribution to the IPCC's Sixth Assessment Report (AR6) Technical Summary</u>, pg. 54.

benefits".<sup>3</sup> The ACCC has also referred to environmental claims that may impact on competition in markets.<sup>4</sup> Similar, ASIC's Chair Joe Longo has referred to ASIC's priorities in relation to climate disclosures and also said" Greenwashing is also very much in our sights".<sup>5</sup>

### Jurisdiction:

- 6. As you would be aware, for the purposes of the Australian Consumer Law and ASIC Act, representations must be made in trade or commerce. Glencore Operations Australia Pty Ltd and/or Glencore Coal Holdings Pty Ltd and their subsidiaries pursuant to the part of their coal business that sells coal for energy and some thermal coal for steelmaking locally in Australia, as well as exporting coal, are making the statements in trade and commerce. For example, the Collinsville and Mangoola open cut mine produces thermal and coking coal for both overseas and domestic markets.<sup>6</sup> Glencore acknowledge that around 15 % of their production is from sales in Australia which is confirmed by its recent production reports.<sup>7</sup>
- 7. Glencore PLC, the parent company is based in the UK and only listed on the London and Johannesburg Stock Exchanges, substantial amount of Glencore plc's shares are held by Australian entities. Therefore we have made this complaint jointly to both ASIC and ACCC due to the overlap between consumers of coal and investors.
- 8. Lock the Gate and PWCP are also concerned that Glencore Australia is reproducing the Glencore PLC net zero plans and statements without ensuring that the information complies with Australian legal requirements. We have outlined at paragraph 9-12 below further information about the Australian context. ASIC and the Financial Conduct Authority (**FCA**) have a Memorandum of Understanding in place to cooperate, including to share information with the other that gives rise to a suspicion of a breach, or anticipated breach of applicable laws, regulations and requirements. While this letter does not seek to assess whether misstatements or omissions are made in Glencore PLC's reporting pursuant to its obligations as an FCA-regulated firm and under English law, we have a provided a copy of this letter to the FCA for their information.

#### Misleading or deceptive conduct

9. Section 18 of the Australian Consumer Law (ACL) states:

A person must not, in trade or commerce, engage in conduct that is misleading or deceptive or is likely to mislead or deceive.

<sup>&</sup>lt;sup>3</sup> <u>ACCC Product Safety Priorities announced at National Consumer Congress.</u>

<sup>&</sup>lt;sup>4</sup> <u>ACCC says it's ready to pursue greenwashers</u>.

<sup>&</sup>lt;sup>5</sup> ASIC's corporate governance priorities and the year ahead.

<sup>&</sup>lt;sup>6</sup> <u>Glencore Current Operations Collinsville Open Cut; Glencore Current Operations Mangoola Open Cut</u>.

<sup>&</sup>lt;sup>7</sup> <u>Glencore Energy Coal, Coal in figures - 2020; Glencore Third Quarter 2021 Production Report.</u>

10. Similar provisions exist in section 1041H of Corporations Act 2001 (Cth):

A person must not, in this jurisdiction, engage in conduct, in relation to a financial product or a financial service, that is misleading or deceptive or is likely to mislead or deceive.

- 11. All of the Representations, save for Representation (f) relate to future matters as they relate to emissions reductions or other actions by future dates. Section 4(1) of the ACL creates a presumption that representations are misleading if they do not have any reasonable grounds to base the representation. According to Hutley SC and Hartford-Davis' April 2021 opinion, net zero commitments/targets are likely to be considered representations as to future matters.<sup>8</sup>
- 12. Conduct is misleading or deceptive or likely to mislead or deceive if "the impugned conduct viewed as a whole has a tendency to lead a person into error".<sup>9</sup> Lock the Gate and PWCP are concerned that the overall conduct of Glencore, via its Australian website, reproducing these representations creates the impression to consumers and investors that Glencore are concerned about climate change and are taking steps to reduce their emissions across their coal business, consistent with the Paris agreement and scientific information, when this is not obviously the case. In fact, Glencore expressly acknowledge investor concerns and expectation as to how Glencore should address climate change in their Climate Change Report 2021 where they state:

Our investors and other stakeholders want to understand both our contribution to climate change mitigation and the exposure of our business to these various types of climate related risks and opportunities...<sup>10</sup>

## They also note:

In addition to CA100+, many of our shareholders have expressed the importance that they attach to climate change and their expectation for Glencore to align its business strategy with the goals of the Paris Agreement.<sup>11</sup>

- 13. Taken together, Glencore's acknowledgement of the investor expectation that Glencore aligns its business strategy with the goals of the Paris Agreement, combined with Glencore's pledges, have a tendency to lead persons who consider those statements into error. The conduct is apt to mislead users of this information as to how much Glencore does care and or/is acting on climate change.
- 14. The recent launch of the advertising campaign by Glencore including in Australia that is headlined "<u>Advancing everyday life</u>". It similarly encourages the general impression that Glencore are committed to addressing climate change by promoting their mining of minerals used to produce renewable technologies. In particular, the campaign uses

<sup>&</sup>lt;sup>8</sup> <u>Climate Change and Directors' Duties, Further Supplementary Memorandum of Opinion</u>, para 37.

<sup>&</sup>lt;sup>9</sup> Campbell v Backoffice Investments Pty Ltd (2009) 238 CLR 304, 319 [25] (French CJ).

<sup>&</sup>lt;sup>10</sup> <u>Glencore Pathways to net zero 2021 Progress report, Climate Report 2021</u>, pg. 8.

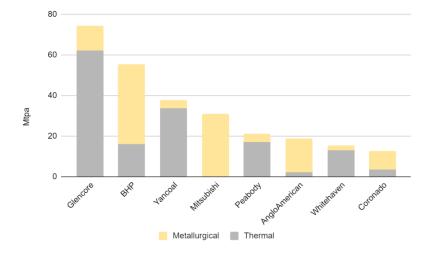
<sup>&</sup>lt;sup>11</sup> Glencore Pathways to net zero 2021 Progress report, Climate Report 2021, pg. 4.

the line "laying the foundations for a low carbon future", and yet is silent on their current production and investment in Australia being mostly related to coal, which is likely to lead to an increase in emissions. This is despite only around \$2 million currently invested in expanding production in nickel, cobalt, zinc, copper compared to \$259 million invested in expanding thermal coal in 2020 and 2021, plus an additional \$535M sustaining existing thermal coal operations.<sup>12</sup>

15. Given recent concern about greenhouse gas emissions (**GHG**), these statements form a strong overall impression of Glencore's commitment to addressing climate change to differentiate itself from its other mining competitors in important energy markets. Companies cannot cherry-pick the "green" part of their operations in advertising where it misleads consumers about the overall nature of their business by being silent on the plan so far as it relates to the more damaging aspects of their business: the mining and sale of fossil fuels such as coal. Nor it is appropriate to include a disclaimer around "with a supportive policy environment" in relation to their net zero total emissions by 2050 plan, as a basis on which to qualify the claim.

# Claim (a) Glencore has no immediate plans to decarbonise and is expanding coal operations in Australia

16. Glencore operates 17 coal mines in Australia. Glencore is Australia's largest coal producer and biggest contributor to emissions from coal mining (see chart from ACCR on Australia's Coal production by company in 2020<sup>13</sup>).

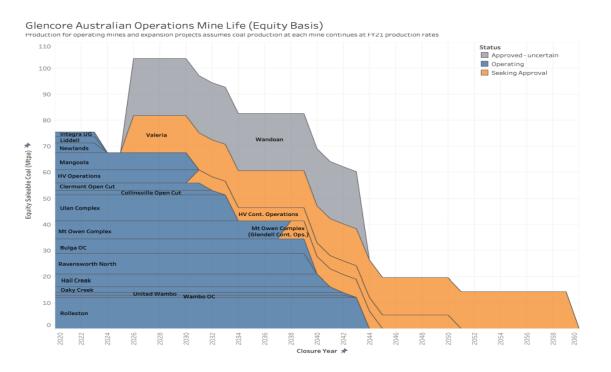


17. Coal generates the majority of Glencore's Greenhouse gas emissions (GHG) and in 2019, 91.7% of its scope 3 emissions and is a significant part of its overall business. The briefing by the ACCR which is attached at **Annexure H** outlines significant information that refutes most of Glencore's arguments that it can meet net zero emissions by 2050. Coal production is generally expanding rather than significantly reducing, with some proposed mines such as Valeria planning to operate until 2067 (see below ACCR's chart

<sup>&</sup>lt;sup>12</sup> Mining giant Glencore's Australian PR blitz forgets the coal driving the climate crisis.

<sup>&</sup>lt;sup>13</sup> Figure 4 of ACCR Submission at Annexure H.

# showing the expansions<sup>14</sup>). There are also significant concerns around fugitive methane emissions from their sites.



18. We are also concerned that Glencore is reproducing its global plan, without tailoring its message to the Australian market. In particular, there is only a small reference in a video about the Australian Coal business at.

https://www.glencore.com.au/sustainability/climate-change. In the video it says "While our global coal assets reach the end of their mine lives, our high quality Australian coal operations will continue employing thousands of people". In the circumstances, it is misleading or deceptive to suggest that the global net zero targets are necessarily reflected in Australia, and any disclaimer around this would need to be much more prominent to avoid misleading consumers and investors- see *Singtel Optus v ACCC* [2012] FCAFC 20. In any event, the global plan is also misleading or deceptive for the reasons outlined below.

- 19. Advertising a global decline, combined with the Representations which reproduce Glencore's global plan, inaccurately represents the steps Glencore is taking (and/or not taking) in Australia. A more tailored message would be clear about Glencore's expansion plans in Australia and the associated projected GHG emissions and would therefore demonstrate that Glencore has no plans to decarbonise in Australia and is in fact expanding its operations in the jurisdiction. We comment further on those expansion plans and projected emissions in paragraphs 25 to 34 below.
- 20. The Climate Action 100+Net Zero benchmark assesses whether targets are aligned with or below the company's relevant sector trajectory. The 2022 benchmark assessment

<sup>&</sup>lt;sup>14</sup> Figure 5 of ACCR Objection at Annexure H.

found Glencore only partially met criteria on short term targets, long term targets, capital allocation alignment, medium targets, decarbonisation strategy.<sup>15</sup> This is because the benchmark assessment found that Glencore's emissions reduction targets and capital expenditures were almost entirely not aligned with the Paris Agreement's objective of limiting global warming to 1.5°C.

- 21. The Investor Group on Climate Change (IGCC) has provided a guide that assists in determining key matters that it should examine in any net zero or transition plan.<sup>16</sup> It also refers to the need to provide immediate goals to decarbonise stating "restricting temperature increases to 1.5 degrees requires action to halve emissions by 2030". Glencore has set a 50% target that is achievable only some 5 years later in 2035 and no clear decarbonisation plans save for a broad statement about the decline in coal production by certain dates. The lack of detail or silence in relation to how this will work across Glencore's business is also of concern, as there are few qualifications made in relation to the statements. There are some general statements about reducing its coal portfolio over time. The targets show a significant difference between emissions cuts between 2026 and 2035, but again no clear information about how those cuts will occur, other than through reduced coal production. Nor is there any information on which particular operations are impacted. Given that Glencore's Australian website reproduces and links to these reports, this suggests that Glencore Australia is also following the same path across its 17 coal mines. In light of the expansion plans in Australia this is misleading or deceptive, as a significant cut would be required across all operations to ensure any targets were met. As the analysis at Annexure G shows- many of Glencore's operations are in fact currently increasing their scope 1 and 2 emissions. There is no replacement of high emission diesel trucks, nor green power agreement or use of solar panels at these sites.
- 22. Glencore's mining footprint in Australia is expanding at present with 7 coal mine expansion projects together with two greenfield mine sites being developed resulting in 129.5Mtpa of additional capacity. Two further sites are in the coal exploration stage. Most of these projects will continue into 2040-2050. In Glencore's 2021 Climate Change report it notes that there will be some closure of their assets in Australia at Liddell, Integra and Newlands.<sup>17</sup> The production from these mines is small around 13.5 million tonnes per annum, and Liddell does not close until 2028. A table outlining the projects and their estimated start and time frames is outlined at **Annexure D**. It is difficult to see how Glencore's expansion of its coal mining footprint can be consistent with its Representations as to how it says it is or will be reducing emissions, as decarbonisation in line with those targets requires more significant cuts to coal production.

# Claim (b) Glencore's emissions do not appear to include all of its methane emissions, and if included would require greater cuts to their emissions

<sup>&</sup>lt;sup>15</sup> <u>Company Assessment Glencore PLC</u>.

<sup>&</sup>lt;sup>16</sup> Corporate Climate Transition Plans: A Guide To Investor Expectations.

<sup>&</sup>lt;sup>17</sup> Glencore Pathways to net zero 2021 Progress report, Climate Report 2021, pg. 23.

- 23. In 2020 Glencore's Pathways to Net Zero report related only to CO2 combustion emissions.<sup>18</sup> It has been since updated to refer to all emissions. There are concerns however that Glencore may not be accurately reporting on all of the methane generated by their mines, nor considering methane emissions reductions requirements except on their underground operations.<sup>19</sup> A 2022 report by the International Energy Agency found global methane emissions from the energy sector are about 70% greater than the amount officially reported by national governments.<sup>20</sup>
- 24. A recent study of coal mine methane emissions in Australia led by the Netherlands Institute for Space Research (known as SRON) used two years of satellite observations to estimate the methane emissions from six coal mines in Queensland, the largest coal producing state in Australia. It estimates that Glencore's Hail Creek mine emitted more than 35 times the reconstructed bottom-up emissions<sup>21</sup> and 15% more than the reported methane emissions from all surface coal mines in Queensland combined.<sup>22</sup> The Hail Creek estimate accounts for 88% of Australia's total reported surface coal mine methane emissions. A recent report from Ember also confirms the underreporting at mines such as Hail Creek.<sup>23</sup>
- 25. If these reports on methane at Glencore sites are correct, it would suggest Glencore could have very significantly underreported its methane emissions for a number of sites. As the Ember report noted, underground mines directly measure methane, which makes it more accurate. However for open cut mines, even though methane represents the largest source of GHG emissions, Australia uses standardised emissions estimates linked to volume of coal produced. These factors do not take into account the variation in gas content between different coal seams, which means the uncertainty associated with estimates is very high, anywhere between ±50%, or a factor of two higher.<sup>24</sup>
- 26. This uncertainty around methane emissions has significant consequences for the emissions targets of Glencore as the largest coal producer in Australia. More accurate measurement of methane would also require Glencore to make substantially more emissions cuts and changes to its operations to ensure it complies with its net zero target. As Glencore provides only basic information about how it estimates its fugitive GHG it is difficult to determine whether these emissions have been under-estimated. It is clear though it has rejected the use of new technologies to better calculate emissions.<sup>25</sup> For example, at Glencore's Ulan mine, Glencore state that "It may be

<sup>&</sup>lt;sup>18</sup> <u>Glencore Pathway to net zero, Climate Report 2020</u>, Appendix Two, pg. 38.

<sup>&</sup>lt;sup>19</sup> <u>Glencore Methane emissions, Fact sheet</u>.

<sup>&</sup>lt;sup>20</sup> IEA Methane emissions from the energy sector are 70% higher than official figures.

<sup>&</sup>lt;sup>21</sup> A bottom-up reconstruction was used because mine-specific emissions data is not publicly available in Australia.

<sup>&</sup>lt;sup>22</sup> Methane Emissions from Super-emitting Coal Mines in Australia quantified using TROPOMI Satellite Observations, pg. 11.

<sup>&</sup>lt;sup>23</sup> <u>Tackling Australia's Coal Mine Methane Problem</u>.

<sup>&</sup>lt;sup>24</sup> <u>Tackling Australia's Coal Mine Methane Problem</u>, pg. 18.

<sup>&</sup>lt;sup>25</sup> <u>Glencore Methane emissions, Fact sheet</u>.

technically possible to install a thermal flow reversal reactor (TFRR) to oxidise low methane concentrations in the air flow exhausted from the underground ventilation system, however, an equivalent investment at a gassy site would generate a better GHG control outcome for GCAA and the environment." Despite Glencore's assessment that this technology could provide significant mitigation at a "gassy site", there is no evidence at all that Glencore are considering installing this system at any of their sites.

# Claim (c) Glencore's net zero strategy is not aligned with a 1.5 degree pathway outlined by the IPCC and IEA

27. Glencore in response to investor concerns:

"In line with the ambitions of the 1.5°C scenarios set out by the Intergovernmental Panel on Climate Change (IPCC), we target a short-term reduction target of 15% by 2026 and a medium-term 50% reduction of our total (Scope 1, 2 and 3) emissions by 2035 on 2019 levels."

"Our 2026 target lies within the range of IPCC's 1.5 degree scenarios and our 2035 target is aligned with the International Energy Agency's (IEA) Net Zero Emissions by 2050 Scenario (NZE 2050), which is consistent with IPCC SSP1-1.9."<sup>26</sup>

- 28. Under IPCC and IEA pathways, coal emissions are subject to significantly greater reductions than overall emissions or overall fossil fuel emissions. **Annexure C** compares the cuts required from different types of emissions. In particular the rows in dark blue show the required cuts if the emissions are primarily coal in comparison to other fossil fuel emissions.
- 29. Since the Climate Report was produced the IPCC has made further findings about the impacts of fossil fuels and reductions needed to stay on a path to 1.5<u>°C.</u>

"Estimates of future CO2 emissions from existing fossil fuel infrastructures already exceed remaining cumulative net CO2 emissions in pathways limiting warming to 1.5°C with no or limited overshoot (high confidence). Assuming variations in historic patterns of use and decommissioning, estimated future CO2 emissions from existing fossil fuel infrastructure alone are 660(460-890) GtCO2 and from existing and currently planned infrastructure 850 (600-1100) GtCO2. This compares to overall cumulative net CO2 emissions until reaching net zero CO2 of 510 (330-710) GtCO2 29 in pathways that limit warming to 1.5°C with no or limited overshoot, and 890 (640-1160) GtCO2 in 3 pathways that likely limit warming to 2°C (high confidence). While most future CO2 emissions from existing and currently planned fossil fuel infrastructure are situated in the power sector, most remaining fossil fuel CO2 emissions in pathways that likely limit warming to 2°C and below are from non-electric energy – most importantly from the industry and transportation sectors (high confidence). Decommissioning and reduced utilisation of existing fossil fuel installations in the power sector as well as

<sup>&</sup>lt;sup>26</sup> <u>Glencore Annual Report 2021</u>, pg. 19.

cancellation of new installations are required to align future CO2 emissions from the power sector with projections in these pathways (high confidence).<sup>27</sup>

- 30. Glencore's target of 50% reduction by 2035 is 20-30% off the reductions required by IPCC and IEA scenarios for coal. This is because Glencore seek to justify their climate target by reference to overall fossil fuel emissions pathways, despite the fact that coal is the vast majority of their emissions. **Annexure E** sets out the analysis of how much of Glencore's production relates to coal between 2019-2020 which is between 83%-91% of their emissions. Incidentally, Glencore's 11 March 2021 'Pathway to Net Zero' website statement states; "We expect our coal portfolio to produce no more than 85Mt by 2035, down 40% from 2019 levels."<sup>28</sup> Glencore therefore projects a coal production cut from 139.5Mt in 2019 to 85Mt in 2035 (40%), despite the expansion in its Australian projects. The Representation that Glencore's projected emissions reductions would actually bring its business in line with a 1.5 degree pathway is untenable.
- 31. International research in The Production Gap undertakes an analysis of the decline of coal, gas and oil production needed to stay consistent with 1.5 degrees set out by IPCC.<sup>29</sup> In particular, it emphasises the need for an immediate decline in global fossil fuel production to be consistent with 1.5 degrees. To be consistent with 1.5 degree pathways there is a need for an annual decline of 11% for coal, 4% for oil, and 3% of gas between 2020 and 2030. These different rates of decline reflect the higher emissions associated with coal production and use, and illustrate why Glencore's decision to select an overall 'fossil fuels and industry' emissions pathway comprises

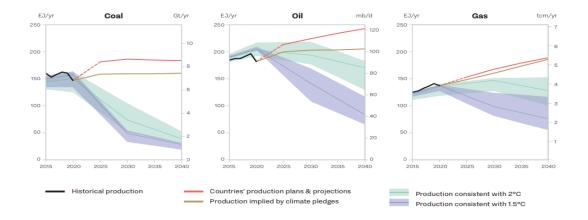
<sup>&</sup>lt;sup>27</sup> Working Group III contribution to the IPCC's Sixth Assessment Report (AR6), Technical Summary, pg. TS-26, Figure TS.8 {2.7.2, 2.7.3, Figure 2.26, Table 37 2.6, Table 2.7}.

 <sup>&</sup>lt;sup>28</sup> Link inactive: <u>https://www.glencore.com/investors/reports-results/2020-annual-report/net-zero</u>. Claim can be found here: <u>Glencore Responsibly Sourcing the Commodities that Advance Everyday Life</u>, pg. 16.
 <sup>29</sup> The Production Gap, Special Report 2020, pg. 15.

## misleading conduct. The details are set out in the figure below.

#### Figure 2.2

Global coal, oil, and gas production (exajoule or EJ per year) under four pathways, 2015–2040. This figure is adapted from the 2019 Report, updated to show actual and estimated 2015–2020 values (black lines). For the 1.5°C and 2°C pathways, the median (purple and green lines) and 25th to 75th percentile range (shaded areas) are shown. Note that the modelled pathways for production consistent with 1.5°C and 2°C have not been harmonized to recent actual data (black lines); consequently, the median values for the 1.5°C- and 2°C-consistent pathways appear above the estimated actual production for coal and oil in 2020. Physical units are displayed as secondary axes: billion tonnes per year (Gt/yr) for coal, million barrels per day (mb/d) for oil, and trillion cubic meters per year (tcm/yr) for gas.



32. Professor Penny Sackett recently provided evidence to the Independent Planning Commission about the carbon budget that Australia has left to meet its targets in the context of one of Glencore's expansions at the Glendell site.<sup>30</sup> Her findings explain the issues with the increased emissions from the project, comparing them both against Australia's 2030 target and NSW's 2030 target. In both cases the emissions from the project significantly impact on the targets in the wrong direction in terms of reductions required to align with the Paris Agreement. This is just an illustration of the problem at one of the Glencore mine sites.

<sup>&</sup>lt;sup>30</sup> Expert Report to the NSW IPC on the Greenhouse Gas and Climate Implications of the Glencore Glendell Continued Operations Coal Project.

	Annual Quantity	Glendell Extension Mod 4 Average Annual Contribution
Australia's projected 2021 direct emissions (Scope 1)*	484.06 Mt CO <sub>2</sub> -e	0.349 Mt CO <sub>2</sub> -e or 0.07% (Scopes 1 & 2)
AUS 2030 Target Annual <i>change</i> from 2022 required to meet 26% reduction on 2005 levels (624.2 MtCO <sub>2</sub> -e) by 2030	– 2.46 Mt CO <sub>2</sub> -e	0.271 CO <sub>2</sub> -e or +11.0% in the wrong direction
New South Wales projected 2021 direct emissions (Scope 1)*	124.91 Mt CO <sub>2</sub> -e	0.323 Mt CO <sub>2</sub> -e or 0.26% (Scope 1 only)
NSW 2030 Target Annual <i>change</i> from 2022 required to meet 50% reduction on 2005 levels (165.0 MtCO <sub>2</sub> -e) by 2030	– 4.71 Mt CO <sub>2</sub> -e	0.252 Mt CO <sub>2</sub> -e or + 5.3% in the wrong direction

#### Table 6: Average effect of Project on meeting 2030 emission reduction targets

\*Table 6 Note: Paragraph 291) explains how emissions were projected forward to 2021.

- 33. Lock the Gate have recently analysed the scope 1 and scope 2 emissions at Glencore sites in NSW from their annual reviews under their development consents. That analysis can be found at **Annexure G**. It reveals that in many cases, scope 1 and scope 2 emission are still increasing at the sites. Simple measures like using electric trucks and purchasing green power agreements and using solar panels on site, are yet to be undertaken at these mines.
- 34. Glencore's assumptions on which its cuts to emissions are based are in themselves misleading or deceptive, as they are not consistent with the pathways outlined by the IPCC or the IEA NZE 2050. There is no information to suggest that Glencore will be declining production consistent with the Production gap or IPCC figures between 2020 and 2030, particularly with its expansion program. On the contrary, information suggests they will be increasing production in Australia.

## Claim (d) Glencore's net zero strategy is not aligned with IEA NZE 2050 as it involves new coal production after 2021 and does not align with IEA NZE 2050 emission reductions

35. In addition to the numerical decline in coal emissions required for 1.5 degree scenario alignment according to the IPCC and IEA (see our comments above in relation to claim (c), the IEA NZE 2050 sets out key milestones it considers are required to achieve its pathway to net zero. Key milestones include:<sup>31</sup>

2021 - "No new unabated coal plants approved for development".

<sup>&</sup>lt;sup>31</sup> <u>IEA Net Zero Roadmap</u>, pg. 20.

- 2021 "no new coal mines or mine extensions".
- 2030 "Phase out of unabated coal in advanced economies".
- 2035 "Overall net-zero emissions electricity in advanced economies".
- 2040 "Phase out of all unabated coal and oil power plants".

#### The 2021 NZE2050 also states that:

"Unabated coal demand declines by 90% to just 1% of total energy use in 2050."<sup>32</sup>

"No new coal mines or extensions of existing ones are needed in the NZE as coal demand declines precipitously. Demand for coking coal falls at a slightly slower rate than for steam coal, but existing sources of production are sufficient to cover demand through to 2050. Such a decline in coal demand would have major consequences for employment in coal mining regions (see Chapter 4). There is a slowdown in the rate of decline in the 2040s as coal production facilities are increasingly equipped with CCUS: in the NZE, around 80% of coal produced in 2050 applies CCUS."<sup>33</sup>

36. At 2021 during the COP-26 climate summit in Glasgow, an agreement endorsed by nearly 200 nations pledged to begin curtailing coal from the energy mix. UN Secretary-General Antonio Guterres described coal as a "deadly addiction" and urged all governments, private companies and local authorities to "cancel all global coal projects in the pipeline".<sup>34</sup> Given the expansion plans outlined above, it is difficult to see how Glencore can be consistent with 2021 NZE2050, particularly given many of their expansion plans are yet to commence and will continue past 2030. The 2021 NZE2050 sets out a specific scenario to achieve net zero consistent with 1.5 degree pathway. Therefore the number of expansions that will occur after 2021 by Glencore is considerable and is not consistent that scenario. If Glencore seeks to meet its net zero targets by closing mines elsewhere in the world, it should also be clear and upfront that it will be continuing to mine in Australia, and its Australian operation cannot be classified as net zero by 2050 or 2021 NZE2050. In particular its expansion program in Australia will have significant impacts on Australia's ability to comply with its Paris agreement targets is illustrated by Professor Sackett in her evidence on just one of the Glencore's mines.

# Claim(e): Glencore has not respected the customs, interests and rights of indigenous people in the Glendell expansion project

37. Recognition and respect for the role of indigenous people and their interests and rights plays a prominent role on Glencore Australia's website, including a photo of

<sup>&</sup>lt;sup>32</sup> IEA Net Zero Roadmap, pg. 21.

<sup>&</sup>lt;sup>33</sup> <u>IEA Net Zero Roadmap</u>, pg. 103.

<sup>&</sup>lt;sup>34</sup> World must break its deadly addiction to coal says, UN Chief.

indigenous Australian's working with Glencore staff. However, Glencore Coal Australia Pty Limited has recently placed an advertisement in the local paper to attack the PCWP and the Chair and member of PCWP for opposing their expansion operation at Glendell in the Hunter Valley. A copy of the advertisement is reproduced at **Annexure F**. The PCWP is an Aboriginal corporation established for the protection of Native title rights and the only formally registered body to represent Wonnarua people via the native title legislation. As part of its role in native title, members of Wonnarua people at a public advertised native title meeting authorised Mr Franks and Mr Lester (who is Chair of the PCWP) under s61 of the *Native Title Act 1993* to make a native title determination application. In this capacity they had previously negotiated with Glencore in relation to mining activities at Hunter Valley Operations.

- 38. The advertisement accused PCWP and Mr Franks and Mr Lester through exercising their rights to protect a significant cultural heritage site of having made an application to "stop mining and other industry activities across a 156km2 area in the Hunter Valley". It implies that because only Mr Franks and Mr Lester in the indigenous community are raising these concerns that they are in essence not genuine. It fails to acknowledge their standing as spokespeople selected to speak on behalf of the Plains Clan of the Wonnarua People. It also fails to recognise that both Mr Franks and Mr Lester are legally entitled to make an application under the *Aboriginal and Torres Strait Islander Heritage Protection Act 1984* (Cth) (**ATSIHP Act**) to protect an area that is culturally significant to them, to other members of the Plains Claim of Wonnarua People, and to other Wonnarua groups. Their role as Elders includes the need to speak up to protect country from threats such as mining that may impact on cultural heritage in accordance with Aboriginal "lore".
- 39. The advertisement also states that Scott Franks and Robert Lester representing the PCWP are making inaccurate claims about the sites impacted by the mine expansion. Notably, the Heritage Council of NSW said it considers that '*Ravensworth Homestead and its surrounding cultural landscape is likely to be of state heritage significance*'<sup>35</sup> First Nations peoples in Australia have legal rights to seek protection of culturally significant sites under the ATSIPH Act. Glencore also took action in the Federal Court in relation to Mr Franks and Mr Lester, including seeking costs against them personally, in *Glencore Coal Pty Limited v Franks* [2020] FCA 1801 and *Glencore Coal Pty Limited v Franks* [2021] FCAFC 61. Glencore in those proceedings sought to use a genealogical report from a previous native title case in refuting the s10 ATSIPH Act application and be released from its undertaking to otherwise keep that report confidential. Those proceedings and an appeal against the original decision, which found against Glencore was ordered to pay costs.

<sup>&</sup>lt;sup>35</sup> <u>Ravensworth Homestead Complex – Glendell Continued Operations Project – Heritage Council comments on</u> <u>Response to Submissions Report</u>.

40. Lock the Gate and PWCP are concerned that the approach taken on Glencore Australia's website is not consistent with their advertised approach to indigenous engagement in publicly attacking Aboriginal Elders for protecting their cultural heritage. Nor does it demonstrate that Glencore are respectfully seeking to explore solutions to the dispute.

### Recent decisions in the Advertising context about similar advertising

- 41. As noted above, Glencore has begun an advertising campaign to promote their role in mining of essential minerals that are "laying the foundations for a low carbon future". There have been some rulings albeit in the advertising space finding consumers are misled about the overall nature of a business who is silent on their continued use of fossil fuels such as coal.
- 42. We understand from media reports that the UK Ad Standards may be in fact ruling on a greenwashing by omission claim against HSBC bank, where the bank promoted its lending to companies to transition to net zero and pledged to plant 2 million trees. The report quoted:

In a draft seen by the paper, the ASA said people seeing the ads would assume the bank to be making "a positive overall environmental contribution as a company" while in fact the bank funded £14.3bn of fossil fuels last year, according to the Rainforest Action Network.<sup>36</sup>

43. The Dutch Advertising Standards has also ruled on a similar advertisement by Shell where is advertised it was "the driver of the energy transition" and "we're changing". They found the Shell adds to be misleading:

The Commission considers it plausible that the average consumer will interpret the contested statement in such a way that Shell is currently undergoing a process of change in which it is changing its core strategic activity, also known as its core business, and is already investing to a significant extent in renewable energy at the expense of fossil fuels. After all, the announcement that Shell is turning into one of the biggest drivers of the energy transition implies that this process has already started and that a real change in the core business is taking place. However, as acknowledged, it has been established that, in addition to investing in transition projects, Shell is currently maintaining its investments in fossil fuels and is only phasing out very slowly. In that situation, the Commission considers it unjustifiable for Shell to refer to itself as "one of the biggest drivers of the energy transition", giving the impression that it is an initiator and accelerator of the transition.<sup>37</sup>

44. BP also removed it advertising campaign "Possibilities everywhere" about them "working to make energy cleaner", promoting their role with renewables and reduce their carbon footprint while being silent on the fact that 96% of BP's annual spend is still on oil or gas. This was in a response to a complaint by Client Earth to the OECD

<sup>&</sup>lt;sup>36</sup> <u>Could HSBC ad warning set an industry precedent?</u>.

<sup>&</sup>lt;sup>37</sup> Shell may not call itself "driver of the energy transition", rules Dutch ad watchdog.

national contact point for OECD Guidelines for Multinational Enterprises where a complaint would have been accepted but for the advertising being pulled by BP.<sup>38</sup> Glencore's claims are comparable to BP and Shell's in that the Representations similarly give a false impression as to how Glencore's business is acting on, or prepared to achieve, the transition. This is particularly prescient from Glencore's additional statements beyond the advertising campaign, that it is "playing a leading role in the green energy transition and securing our ambition of being a net zero total emissions company by 2050" (see page 22, Annex B to this complaint)", and that its emission reduction targets are described as Glencore "making a meaningful contribution to reducing global emissions" (see page 19, Annex B), for example. Taken together, these representations could be construed as Glencore actually leading the transition and making a meaningful contribution, which as we demonstrate is not the case.

#### **Conclusion:**

45. This matter also highlights the need for the ACCC to provide greater guidance to companies about their net zero climate claims, similar to the work done by the ACCC in relation to "carbon neutral" claims with the General Motors (SAAB) and Supercars enforceable undertakings. In particular, the ACCC's Guide to Green marketing does not currently address net zero or emission reduction claims. Please let us know if you need any further information about this complaint by phone 0406 288 599 or email on <u>kirsty.ruddock@edo.org.au</u>.

Yours faithfully

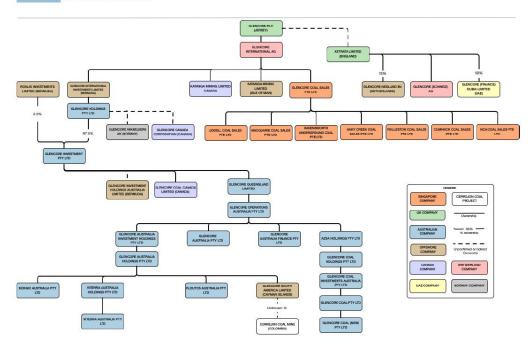
**Environmental Defenders Office** 

**Kirsty Ruddock** Managing Lawyer Safe Climate (Corporate & Commercial)

<sup>&</sup>lt;sup>38</sup> <u>BP greenwashing complaint sets precedent for action on misleading ad campaigns; An update on BP's climate ads</u>.

### Annexure A

Ownership of Glencore Australia



Source: Tax Justice Network Australia, Centre for International Corporate Tax Accountability and Research, Publish what you Pay Australia, "Broke: Coal Mining Giant Games Global Tax System...the World Loses" at <u>Broke: Coal Mining Giant Games Global Tax</u> <u>System</u>.

## ANNEXURE B-Glencore representations

DATE	DOCUMENT NAME	RELEVANT EXTRACTS	TARGET AUDIENCE	LINK
DECEMBER 2020	Climate Change Factsheet Australia (Australian website)	<ul> <li>"Our position on climate change [] We recognise</li> <li>Global climate change science set out by the Intergovernmental Panel on Climate Change (IPCC).</li> <li>Under all credible scenarios, fossil fuels (oil, gas and coal) will continue to be a large part of the global energy mix for decades." (pg. 1)</li> <li>"Our commitment 1. Reduce our total emissions* by 40% by 2035. 2. Achieve with a supportive policy environment an ambition of net zero total emissions by 2050." (pg. 1)</li> <li>"(1) IPCC 1.5c aligned for fossil fuels sector by 2035. (2) Net zero ambition exceeds the pathway for IPCC 1.5°C. (3) Post 2035, we have set ourselves the ambition to achieve, with a supportive policy environment, net zero total emissions by 2050." (footnotes 1 – 3, pg. 1)</li> </ul>	(ASSUMED) Investors in Australia	Climate Change Factsheet Australia
DECEMBER 2021	Pathway to net zero 2021 progress report (Global website, Glencore Australia also links to report).	<ul> <li>"Emissions reductions targets are considered 'science-based' if they are in line with the level of decarbonisation required to keep global temperature increase below two degrees compared to pre-industrial temperatures, as described in the Fifth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC)". (pg. 6)</li> <li>"Short-term: 2026 Target of 15% reduction in total CO2 e emissions" "Medium-term: 2035 Target of 50% reduction in total CO2 e emissions" "By 2050 we have set ourselves the ambition of achieving net zero total CO2 e emissions<sup>2</sup>". (pg. 1) Footnote 2 Glencore states that gov policies &amp; market based regulations critical for achievement of this target. (pg. 1, 6)</li> <li>"The metals and minerals we produce enable the transition to a low-carbon economy." (pg. 3)</li> </ul>	Investors (generally)	Pathway to net zero 2021 progress report

APRIL 2022	2021 Sustainability Report	"Targeted reductions in total emissions 50% by 2035." (pg. 03)	Investors (generally)	<u>2021</u> <u>Sustainabil</u> ity Report
		"We are committed to reducing our total emissions (Scope 1, 2 and 3) by 15% by 2026 and 50% by 2035, both on 2019 levels. Post 2035, our ambition is to achieve net zero total emissions by 2050, with a supportive policy environment." (pg. 3) "We are committed to reducing our total emissions (Scope 1, 2 and 3) by: • 15% by 2026 on 2019 levels; and • 50% by 2035 on 2019 levels <sup>1</sup> We use the IPCC scenarios to illustrate our compliance with the net zero ambition. Our 2026 target lies within the range of IPCC 1.5 degree scenarios <sup>2</sup> and our 2035 target is aligned to the IEA NZE 2050 scenario, which is consistent with IPCC SSP1-1.9 <sup>3</sup> ." (pgs. 5, 6) "Reducing Scope 3 emissions: Our diverse portfolio uniquely allows us to address this portion of our footprint through investing in our metals portfolio, reducing our coal production and supporting deployment of low emission technologies." (pg. 13) "Based on this data, we have adopted a target of 50% Scope 1, 2 and 3 emissions reduction by 2035. The short term target of 15% Scope 1, 2 and 3 emissions reduction by 2026 is interpolated from the 2035 emissions reduction target and is within the 1.5 degree target range as defined by the IPCC scenarios. Our net zero Scope 1, 2 and 3 emissions ambition in 2050 is substantially greater than the fossil fuel combustion emissions reduction range defined by the IPCC and well below the IEA's NZE2050" (pg. 40) "For the extractive sector, Scope 3 emissions tend to be the largest proportion of total emissions. For Glencore, these emissions represent over 90% of our total carbon footprint and including a reduction in Scope 3 emissions is essential" (pg. 20)		

Strengthening	"Total Scope 1, 2 – Location based and 3 (Mt GHG)	
our performance (Global website, Glencore Australia also	We are committed to reducing our total emissions (Scope 1, 2 and 3) by 15% by 2026 and 50% by 2035, both on 2019 levels. Post 2035, our ambition is to achieve net zero total emissions by 2050, with a supportive policy environment." (pg. 04,	
links to report)	32)	
	"We recognise that for many extractive companies Scope 3 emissions make up the largest proportion of total emissions. For Glencore, these emissions represent over 90% of our total carbon footprint. Including a reduction in Scope 3 emissions is essential for making a meaningful contribution to reducing global emissions." (pgs. 05, 31)	
	"Our 1.5°C-aligned target of an absolute 50% reduction of total emissions by 2035 on 2019 levels, is supported by a 15% reduction of total emissions by 2026. Post-2035, our ambition is to achieve a net zero total emissions footprint by 2050". (pg. 29)	
	"We recognise climate change science as set out by the United Nations Intergovernmental Panel on Climate Change (IPCC). We support the global climate change goals outlined in the United Nations Framework Convention on Climate Change (UNFCCC) and the Paris Agreement." (pg. 30)	
	"Short term: 2026 Target of 15% reduction in total CO2e emissions Medium term: 2035 Target of 50% reduction in total CO2e emissions We have set ourselves the ambition of achieving net zero total CO2e emissions <sup>1</sup> by 2050." (pg. 30) Footnote 1 Glencore states that gov policies & market based regulations critical for achievement of this target.	
	"We also introduced a new short-term target and revised our medium-term emissions reduction target. We are committed to reducing our total emissions (Scope 1, 2 and 3) by 15% by 2026 and 50% by 2035, both on 2019 levels. Post-2035, our ambition is to achieve net zero total emissions by 2050, with a supportive policy environment." (pg. 31)	

		"The GHG Protocol informs our approach to Scope 3 emissions reporting." (pg. 32)		
APRIL 2022	AGM Presentation (Global website, Glencore Australia also links to report)	"Committed in 2021 to incremental total emissions reductions <sup>(1)</sup> : • new short-term target of a 15% (c.55Mt) reduction by 2026 • medium-term target up 10% to a 50% (c.184Mt) reduction by 2035 • Net zero ambition by 2050 (c.368Mt CO2e reduction)" (slide 4) "Scope 3 emissions: responsibly declining coal production commitments, including increased reduction targets announced in 2021" (slide 5)	Investors (generally)	
21 APRIL 2022	Glencore publishes 2021 Sustainability Report (Global website, news)	<ul> <li>"During 2021, we strengthened our commitment to reducing our total emissions footprint (Scope 1, 2 and 3), which underpins our ambition to be a net-zero total emissions company by 2050. Our revised targets are: <ul> <li>15% reduction by 2026 on 2019 levels; and</li> <li>50% reduction by 2035 on 2019 levels</li> </ul> </li> <li>"We use the Intergovernmental Panel on Climate Change (IPCC) scenarios to illustrate our compliance with the net zero ambition. Our 2026 target lies within the range of IPCC 1.5-degree scenarios (IPCC SR1.5) and our 2035 target is aligned to the IEA NZE 2050 scenario, which is consistent with IPCC SSP1-1.9 (IPCC AR6WGI)."</li> </ul>	Investors (generally)	<u>Glencore</u> <u>publishes</u> <u>2021</u> <u>Sustainabil</u> <u>ity Report</u>
15 FEBRUARY 2022	Preliminary Results 2021 (Global website, news)	<ul> <li>"Mining sector-leading climate strategy</li> <li>Committed in 2021 to more aggressive total emissions reductions with a new short-term target of a 15% reduction by 2026, and a 10% increase in our mediumterm target to a 50% reduction by 2035. Net zero ambition by 2050</li> <li>Responsible decline of our coal portfolio will help meet critical regional energy needs and affordability as decarbonisation pathways will be nonlinear across time and geography"</li> </ul>	Investors (generally)	Preliminar y Results 2021
2 DECEMBER 2021	Glencore publishes 2021 Climate Report	"During 2021, we strengthened our commitment to reducing our total emissions footprint – Scope 1, 2 and 3 – which underpins our ambition to be a	Investors (generally)	<u>Glencore</u> publishes 2021

	(Global website, news)	<ul> <li>net-zero emissions company by 2050. Our revised targets are:</li> <li>15% by 2026 on 2019 levels; and 50% by 2035 on 2019 levels"</li> <li>"Our targets and ambition reflect our commitment to align our business strategy with the goals of the Paris Agreement"</li> <li>2. Reducing Scope 3 emissions: our diverse portfolio uniquely allows us to address this portion of our footprint through investing in our metals portfolio, reducing our coal production and supporting deployment of low emission technologies. During the year, we committed to more aggressive total emission reductions with a new short-term 2026 target and a 10% increase in our 2035 target to 50% emissions reduction."</li> </ul>		<u>Climate</u> <u>Report</u>
MARCH 2022	Annual Report 2021 (Global website, Glencore Australia also links to report)	<ul> <li>"We are now committed to reducing total emissions (Scope 1+2+3) by 15% by 2026 and 50% by 2035, both on 2019 levels. Post 2035, our ambition remains to achieve net zero total emissions by 2050 with a supporting policy environment."</li> <li>"Our 2026 target lies within the range of IPCC 1.5°C scenarios and our 2035 target is aligned with the IEA NZE 2050 scenario, itself consistent with IPCC." (pg. 06)</li> <li>"playing a leading role in the green energy transition and securing our ambition of being a net zero total emissions company by 2050." (pg.07)</li> <li>"Leading climate strategy: targeting total Scope 1, 2 and 3 reductions relative to 2019 of 15% by 2026 and 50% by 2035, alongside a total emissions net zero ambition by 2050" (pg. 08)</li> <li>"• Against a 2019 base line, we are committing to decline our total emissions (Scope 1+2+3) 15% by 2026, 50% by 2035 and we have an ambition of net zero by 2050." (pg. 10)</li> </ul>	Investors (generally)	Annual Report 2021

"We recognise our responsibility to contribute to the global effort to achieve the goals of the Paris Agreement by decarbonising our own operational emissions footprint and responsibly managing the depletion of our fossil fuels portfolio. In line with the ambitions of the 1.5-degree Celsius (°C) scenarios set out by the Intergovernmental Panel on Climate Change (IPCC), against a 2019 baseline, we have set ourselves the target of reducing our total (Scope 1, 2 and 3) emissions in the shorter term by 15% by 2026, and in the medium term by 50% by 2035. Post-2035, our ambition is to achieve, with a supportive policy environment, net zero total emissions by 2050." (pg. 13)	
"In line with the ambitions of the 1.5-degree Celsius scenarios set out by the IPCC, against a 2019 baseline, we have set ourselves the target of reducing our total (Scope 1, 2 and 3) emissions in the short-term by 15% by 2026, and in the medium term by 50% by 2035. Post 2035, our ambition is to achieve, with a supportive policy environment, net zero total emissions by 2050." (pg. 16)	
"recognising that a meaningful contribution to addressing climate change is only possible through total (Scope 1, 2 and 3) emissions reductions." (pg. 19)	
"The global response to climate change should pursue twin objectives: limiting temperatures in line with the goals of the Paris Agreement and supporting the United Nations Sustainable Development Goals." (pg. 20)	
"We welcome the Glasgow Climate Pact that was agreed during the COP26 proceedings in November 2021. The Pact signals a continued ambition to keep the average rise in global temperatures to below 1.5°C. Our existing strategy of responsibly depleting our coal portfolio over time, as we prioritise investment in metals needed for the transition, is consistent with the Pact's commitment to phase down the use of fossil fuels." (pg. 24)	
Targets restated pgs. 19, 29, 83, 85, 110.	

2021	Glencore's ESG A-Z Climate Change webpage (Global website, Glencore Australia also links to report)	"In line with the ambitions of the 1.5°C scenarios set out by the Intergovernmental Panel on Climate Change (IPCC), we target a short-term reduction target of 15% by 2026 and a medium- term 50% reduction of our total (Scope 1, 2 and 3) emissions by 2035 on 2019 levels. Post-2035, our ambition is to achieve, with a supportive policy environment, net zero total emissions by 2050." "Managing our footprint [] 2.Reducing Scope 3 emissions: Our diverse portfolio uniquely allows us to address this portion of our footprint through investing in our metals portfolio, reducing our coal production and supporting deployment of low emission technologies."	Investors (generally)	ESG A-Z Climate Change
2021	Glencore sustainability (Australian website)	"Our operating regions have been inhabited by Indigenous people for centuries. We recognise the unique role Indigenous people play in Australian culture and respect their customs, interests and rights". "We seek to engage openly and honestly, address concerns and involve the community in developing solutions"	Investors and community	Glencore Website
JULY 2022	Glencore methane emissions "factsheet" (Australian website)	<ul> <li>" Glencore has committed to a decarbonisation pathway across its global mining business and seeks to achieve net zero total CO2-e emissions by 2050</li> <li>In the short and medium term, Glencore is targeting a 15% emission reduction by 2026 and a 50% reduction in emissions by 2035 across its global mining business.</li> <li>This includes: <ul> <li>Scope 1 emissions that are the direct result of our activities, such as fugitive methane emissions from our mines or the consumption of diesel fuel in heavy mobile equipment.</li> <li>Scope 2 emissions are indirect emissions generated by the electricity purchased to power our businesses.</li> </ul> </li> </ul>		Methane Factsheet

		<ul> <li>Scope 3 emissions, are all other indirect emissions linked to our operations including the consumption of our product.</li> <li>All of our Australian mining operations and future</li> </ul>		
		projects have been factored into out emissions reduction targets." (Pg.2)		
July 2022	Glencore (Australia website and YouTube)	"Glencore is laying the foundations for low carbon future" and "Advancing everyday life"	Consumers	Advancing Everyday Life

#### Annexure C

Description	2019	2030	2035	2040	2050
Glencore figures					
Glencore overall emissions and	351.7mtCO2e		- 40%		
target			updated		
			to 50% in		
			mid 2021		
Glencore coal production	139.5mt		-83mt		
			-40%		
IPCC overall CO2 emissions figu	res for 1.5C pathwa	<b>ys</b> <sup>39</sup>			
IPCC (P1-P3, 'no/ltd		-40% to -58%			-94% to -107%
overshoot'):					
overall CO2 emissions vs 2010					
IPCC (P4, 'higher overshoot'):		+4%40			-97%
overall CO2 emissions vs 2010					
IPCC fossil fuel and industry em	issions figures for 1	.5C pathways (midp	oint used by	Glencore)	
IPCC (gross fossil fuel and					
industry) vs 2020 (CE calc) <sup>41</sup>					
below 1.5		33-15 (-45%)			
1.5-low-OS		35.1-13 (-37%)			
1.5 no or limited OS		34.5-13 (-37%)			
1.5 high OS		35.8-8 (-22%)			
IPCC and IEA <u>coal</u> energy share a	for 1.5C pathways <sup>42</sup>	2			
IPCC (P1, P2, P3, 'no/ltd		-59% to -78%			-74% to -95%
overshoot'):					
Coal energy share vs 2010					
IPCC 1. (P4 'higher overshoot'):		-59%			-97%
coal energy share vs 2010					

<sup>&</sup>lt;sup>39</sup> See Annex 3 for IPCC table, Figure SPM.3a, of four illustrative pathways.

<sup>&</sup>lt;sup>40</sup> The *increase* in CO2 emissions under P4 is because this pathway has emissions reductions coming later largely through carbon removal technologies. Even in this scenario, coal must reduce 59% by 2030. See Annex 3 for IPCC table of four illustrative pathways which explains this.

<sup>&</sup>lt;sup>41</sup> Numbers calculated from the GtCO2/yr. figures in Table 2.4 IPCC SR 1.5 Full Report pg. 119, through the addition of the 2030 absolute figure together with 10x the absolute annual change 2020-2030, for each type of scenario.

<sup>&</sup>lt;sup>42</sup> See Annex 3 for IPCC table, Figure SPM.3a, of four illustrative pathways.

IEA Net Zero Roadmap thermal	14,660mt	5,915mt	Estd. <sup>44</sup>	1,299mt
and coking coal combustion		(-60%)	3,607mt	(-91%)
emissions <sup>43</sup>			(-75%)	

<sup>&</sup>lt;sup>43</sup> See Table A.4 at pg. 199 of the <u>IEA NZE Roadmap</u>. Table A.4 lists CAAGR (Compounded Average Annual Growth Rate) rates per annum for coal combustion CO2 emissions of -8.3 for 2020-2030, and -13 for 2020-2050. The % figures listed are from a calculation of the absolute amounts of coal combustion figures given in Table A.4 (i.e., 14,660mt in 2019 to 5,915mt in 2030 is a drop of 60%, etc.).

<sup>&</sup>lt;sup>44</sup> As IEA Roadmap Table A.4 only gives 2030 and 2040 numbers, to get a 2035 figure, this is a calculation of the average (mean) of 2030 and 2040 amounts – i.e., assuming a steady linear decline.

#### **ANNEXURE D:**

		Estimated Start	Estimated End		New capacity
Glencore Projects	Status	Date*	Date**	Duration	per annum
	Approved				10 MT
<b>Bulga Optimisation</b>	(2020)	31/12/2023	31/12/2039	16	
<b>Glendell Continued</b>	Being				10MT
<b>Operations</b>	Assessed	31/12/2022	31/12/2044	22	
Mangoola Continued	Approved				5MT
<u>Operations</u>	(2021)	31/12/2023	31/12/2030	7	
Mt Owen Continued	Approved				14MT
<b>Operations</b>	(2019)	31/12/2020	31/12/2037	17	
	Approved				6.5MT
United Wambo	(2019)	31/12/2020	31/08/2042	21	
	Being				20MT
<u>HVO North</u>	Assessed	31/12/2025	31/12/2050	25	
	Being				22MT
HVO South	Assessed	31/12/2025	31/12/2045	20	
	Being				20MT
<u>Valeria</u>	Assessed	31/12/2027	31/12/2062	35	
	Approved				22MT
<u>Wandoan</u>	(2017)	31/12/2026	31/12/2056	30	

## **Additional Projects**

<u>Ulan Coal</u>

Exploration Application

<u>Ashton-Ravensworth</u> <u>Integration Modification</u> Being Assessed

Т

To expand until 2032

<u>Hail Creek</u>

Exploration Application

#### **ANNEXURE E**

#### 2019 production figures

- Glencore's emissions footprint in 2019 (the 'base year' for their target) are overwhelmingly Scope 3 emissions. They comprise Scope 1: 18.2 mtCO2e, Scope 2: 10.9 mtCO2e and Scope 3: 343.3 mtCO2e.<sup>45</sup> The total disclosed GHG emissions footprint (the sum of these figures) is 351.7 mtCO2e.
- The vast majority of these Scope 3 emissions are from coal:
  - Glencore's 343.3mtCO2e Scope 3 emissions<sup>46</sup> mostly comprise the category 'use of sold products', which Glencore describe as "the use of saleable fossil fuels (coal and oil), produced by industrial operations under Glencore operational control": 325 mtCO2e
    - These Scope 3 emissions have grown significantly year on year: 2017: 273 mt CO2e, 2018: 296 mt CO2e, 2019: 325 mtCO2e. This reflects the growth in Glencore's coal production from 128.4 mt in 2018 to 139.5 mt in 2019.
  - How much is coal and how much is oil? Glencore's 2019 Production Report shows that it produced 139.5 mt of coal in 2019, of which 9.2 (6.6%) is 'coking' or metallurgical coal. Glencore has a small oil operation, producing 5,518 kbbl (on an entitlement interest basis) in 2019.<sup>47</sup> Estimating the Scope 3 emissions of its oil production by <u>assuming</u> 0.43 tonnes CO2 per barrel of oil, results in 2.4 mt CO2e. The remainder, an estimated **322.6 mtCO2e**, is from the use of coal which Glencore sold in 2019.
- Glencore's Scope 3 'use of products' coal emissions of 322.6 mtCO2e is **91.7%** of Glencore's total disclosed GHG emissions footprint of 351.7 mtCO2e.

#### 2020 production figures:

- Glencore's emissions footprint in 2020 are overwhelmingly Scope 3 emissions. They comprise Scope 1 and 2: 25.724 mtCO2e, and Scope 3: 253.908. mtCO2e.<sup>48</sup> The total disclosed GHG emissions footprint (the sum of these figures) is **279.632 mtCO2e**.
- The vast majority of these Scope 3 emissions are from coal:
  - Glencore's 253.908 mtCO2e Scope 3 emissions<sup>49</sup> mostly comprise the category 'use of sold products', which Glencore describe as "*the use of saleable fossil fuels (coal*

<sup>&</sup>lt;sup>45</sup> <u>Glencore Pathway to net zero, Climate Report 2020</u>, pg. 35.

<sup>&</sup>lt;sup>46</sup> Operational control basis of measurement is used.

<sup>&</sup>lt;sup>47</sup> <u>Glencore Full Year 2019 Production Report</u>.

<sup>&</sup>lt;sup>48</sup> <u>Glencore Strengthening our performance, Sustainability Report 2021</u>, pg. 99.

<sup>&</sup>lt;sup>49</sup> Operational control basis of measurement is used.

# and oil), produced by industrial operations under Glencore operational control": 236.701 mtCO2e<sup>50</sup>

- These Scope 3 emissions have grown significantly year on year: 2017: 273 mt CO2e, 2018: 296 mt CO2e, 2019: 325 mtCO2e. This reflects the growth in Glencore's coal production from 128.4 mt in 2018 to 139.5 mt in 2019.
- But have reduced significantly since 2019, likely owing to COVID. So coal production went down to 106.2 mt in 2020 and 103.3 mt in 2021.<sup>51</sup>
- How much is coal and how much is oil? Glencore's 2021 Production Report shows that it produced 103.3 mt of coal in 2021, of which 9.1 (8.8%) is 'coking' or metallurgical coal. Glencore has a small oil operation, producing 5,274 kbbl (on an entitlement interest basis) in 2019.<sup>52</sup> Estimating the Scope 3 emissions of its oil production by <u>assuming</u> 0.43 tonnes CO2 per barrel of oil, results in 2.267 mt CO2e. The remainder of the coal and oil Scope 3 emissions disclosed, an estimated (236.701-2.267) **234.4332 mtCO2e**, is from the use of coal which Glencore sold in 2019.
- Glencore's Scope 3 'use of products' coal emissions of **234.4332** mtCO2e is **83.8%** of Glencore's total disclosed GHG emissions footprint of **279.632** mtCO2e.

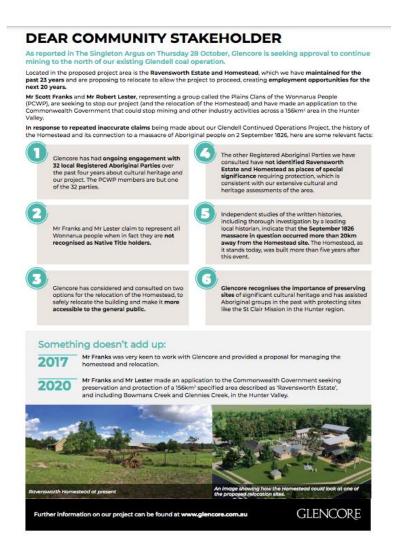
<sup>&</sup>lt;sup>50</sup> <u>Glencore Strengthening our performance, Sustainability Report 2021</u>, pg. 101.

<sup>&</sup>lt;sup>51</sup> <u>Glencore Full Year 2021 Production Report</u>, pg. 1.

<sup>&</sup>lt;sup>52</sup> <u>Glencore Full Year 2021 Production Report</u>, pg.1.

#### Annexure F- Advertisement in Hunter Valley Times-

https://hunterrivertimes.com.au/index.php/2021/11/05/issue-36-november-5/



#### ANNEXURE G-Glencore's coal mines in NSW: Scope 1 and 2 emissions as at August 2022

#### Total Scope 1 and 2 emissions

• In the last FY, Glencore was responsible for emitting **3,143,638 t-CO2e** of Scope 1 and 2 GHG emissions to extract and process coal in NSW (this is almost double the ACT's entire emissions in 2020-21 of 1,685,000 t-CO2-e). These figures are compiled from their Annual reviews (where available). This includes two mothballed Glencore sites, Bulga Underground Operations emitted 147,323 t CO2-e and Ravensworth Underground emitted 160,904 t CO2-e in Scope 1 and 2 emissions (308,227 t CO2-e in total).

	FY2020/21				
	Total Scope 1 and 2 emissions (tCO2-e)	Electricity emissions (tCO2-e)	Diesel emissions (tCO2-e)	Fugitive emissions (tCO2-e)	ROM coal mined
Bulga Open Cut	411,711	42,369	204,334	165,008	10,986,664
Bulga Underground	147,323	51	0	147,272	0
Hunter Valley Operations	658,090	94,930	261,300	301,800	14,410,000
Integra Underground	597,193	43,984	2,707	550,411	3,042,365
Liddell	190,000	20000*	no data	no data	4,986,000
Mangoola	135,015	37,044	91,030	6,941	8,028,889
Mt Owen	193,949	34,065	118,504	41,380	7,780,000
Glendell	121,846	1,945	92,660	26,440	3,300,000
Ravensworth Underground	160,904	4,911	0	155,993	0
Ravensworth Open Cut	334,894	10,690	no data	no data	12,863,000
Ulan	192,713	151,559	no data	no data	12,511,000
	3,143,638	421,548	?	?	77,907,918

#### Ways to reduce Scope 1 and Scope 2 emissions

- By purchasing 100% renewable energy immediately to power its 10 coal mines in NSW, Glencore could reduce Scope 2 emissions to zero.
- A 100% renewable energy buy would reduce direct emissions (total Scope 1 and 2 emissions) at the groups' 10 NSW coal mines by ~14% (~441,548 t CO2-e per annum). This measure alone, would abate ~3,532,384 t CO2-e between now and 2030 if implemented across Glencore's portfolio of coal mines in NSW.
- Glencore could also consider existing fleet electrification technologies at their large open cut operations. While they are considering this issue in their Pathway to net zero 2021 Progress report, there is no evidence that they have in fact converted any of their trucking fleets to electric vehicles.

#### Summaries of emissions at each Glencore Site

#### Bulga Open Cut

- No evidence that renewable energy being considered or purchased to lower Scope 2 emissions
- No indication that biofuels or electrification of vehicles under consideration to improve diesel emissions

Overall there was an improvement in emissions intensity, although the latest annual review for this mine does not attribute the improvement to mitigation measures. This improvement occurred as fugitive emissions reduced as a result of mining coal in "areas of the mine which have lower gas zones compared to the 2019/2020 period". This lead to a decrease in emissions of approximately 30%.<sup>53</sup>

	2018/19	2019/20	2020/21
Bulga Open Cut			
Scope 1 (tCO2-e)	650,813	534,707	369,342
Scope 1 diesel	210,690	219,659	204,334
Scope 1 fugitive (post mining)	440,123	315,048	165,008
Scope 2 (tCO2-e) - electricity from grid	64,321	51,323	42,369
Total (Scope 1 and 2)	715,134	586,030	411,711
ROM coal production(t)	12,200,000	10,064,175	10,986,664
Emissions intensity per t ROM coal	0.059	0.058	0.037

#### **Bulga Underground Operations**

"Emissions from Bulga Underground Operations were approximately 31% lower during 2020/2021 when compared to the previous reporting period. This is due to the cessation of Bulga Underground mining in 2018 which has resulted in a continued reduction in flaring and dissipation of gases."<sup>54</sup>

Bulga Coal Annual Review 2021

	2018/19	2019/20	2020/21
Bulga Underground (ceased mining in 2018)			
Scope 1 (tCO2-e)	335,494	212,798	147,272
Scope 1 "decommissioned mine"	123,766	70,765	53,738
Scope 1 fugitive (coal extraction, flaring, electricity generation)	211,722	142,027	93,528
Scope 2 (tCO2-e) - electricity from grid	328	350	51
Total (Scope 1 and 2)	335,876	213,148	147,323
ROM coal production	0	0	0
Emissions intensity per t ROM coal	N/A	N/A	N/A

#### **Hunter Valley Operations**

This is a JV, with majority ownership by Yancoal (51%) / Glencore (49%) which is independently managed on behalf of the JV partners.

- No evidence that renewable energy being considered or purchased to lower Scope 2 emissions
- Fugitive emissions are increasing "as the mine exposes deeper coal seams" in a context where ROM coal production is decreasing

<sup>&</sup>lt;sup>53</sup> <u>Glencore Bulga Coal Annual Review 2021</u>.

<sup>&</sup>lt;sup>54</sup> <u>Glencore Bulga Coal Annual Review 2021</u>.

- No indication that biofuels or electrification of vehicles under consideration to improve diesel emissions
- Emissions intensity has increased year on year for the last three years in a row

"Total emissions in 2021/2022 reporting year decreased slightly from the previous reporting year. This is largely reflected by a reduction in fuel usage emissions and electricity consumption. Increasing fugitive emissions is due to new coal seam gas estimates as the mine exposes deeper coal seams."<sup>55</sup>

	2018/19	2019/20	2020/21
Hunter Valley Operations			
Scope 1 (tCO2-e)	574,870	562,450	563,100
scope 1 fuel	312,240	315,130	261,300
scope 1 fugitive	262,670	247,320	301,800
Scope 2 (tCO2-e)	112,660	111,920	94,930
Total (Scope 1 and 2)	687,530	674,370	658,090
ROM coal production	18,050,000	16,830,000	14,410,000
Emissions intensity per t ROM coal	0.038	0.040	0.046

#### Integra Underground

#### Summary

- No evidence that renewable energy being considered or purchased to lower Scope 2 emissions.
- Despite 447,159 t CO2-e of methane being vented to the atmosphere in 2021, there is no evidence at all in the latest Annual Review or the <u>2021 AQGHG management plan</u> that Glencore is assessing or considering installing a VAM abatement system
- Overall, emissions intensity has improved. There is no explanation for this in the AR, however it may be attributable to increased gas extraction from 24,073,177 m<sup>3</sup> In 2018/19 to 29,735,855 m<sup>3</sup> in 2020/21

"The methane emitted from Integra Underground is discharged via goaf gas drainage boreholes to either the Glennie's Creek Power Station, the flare site on Forest Road or through mine ventilation. A number of goaf gas drainage boreholes are connected to the Glennie's Creek Power Station, which utilises the gas to generate electricity for distribution in the NSW power grid."<sup>56</sup>

	2018/19	2019/20	2020/21
Integra Underground			
Scope 1 (tCO2-e)	601601	601244	553,209
scope 1 diesel	5,126	3,205	2,707
scope 1 fugitive	596,475	598,039	550,411
Scope 2 (tCO2-e)	38,673	44,038	43,984
Total (Scope 1 and 2)	640,274	645,282	597,193
ROM coal production	2,629,615	2,758,160	3,042,365
Emissions intensity per t ROM coal	0.243	0.234	0.196

<sup>&</sup>lt;sup>55</sup> 2021 Annual Environmental Review.

<sup>&</sup>lt;sup>56</sup> Integra Underground 2021 Annual Review 1 January to 31 December.

#### Liddell Coal Operations

#### Summary

- No evidence that renewable energy is being considered or purchased to lower Scope 2 emissions.
- Glencore failed to publish any information about GHG emissions or the performance of mitigation measures at this mine in the <u>Liddell Annual Review 2021</u>.
- Emissions intensity is increasing (based on ROM coal production divided by Scope 1 emissions).

As Liddell does not publicly report its GHG emissions, Lock the Gate has not been able to calculate emissions intensity in 2020/21 based Scope 1 and 2 emissions. The Scope 1 emissions intensity calculations in the table below are based on data that was obtained via a CER FOI (aqua) and from the CER's 'Safeguard Facilities' web page (green).

	2018/19	2019/20	2020/21
Liddell			AR has no GHG results 14/7/22
Scope 1 (tCO2-e)			
Scope 2 (tCO2-e)			
Scope 1 (tCO2-e) - CER data	186,233	174,805	168,540
Scope 2 (tCO2-e) - CER data	21,837	23,970	
Total (Scope 1 and 2)	208,070	198,775	
ROM coal production	5,863,647	5,746,444	4,986,000
Emissions intensity per t ROM coal (Scope 1 only)	0.032	0.030	0.034

#### Mangoola Open Cut

- Emissions intensity is increasing (diesel use which accounts for most of the Scope 1 emissions is expected to continue to increase)
- There is no evidence at all in Annual Reviews, the AQGHG Management Plan nor in the ESAP that renewable energy is being considered or purchased to lower Scope 2 emissions.
- No indication that biofuels or electrification of vehicles are under consideration to improve diesel emissions and diesel use is expected to increase as mine progresses away from infrastructure.<sup>57</sup>

	2018/19	2019/20	2020/21
Mangoola			
Scope 1 (tCO2-e)	125,072	109,110	97,971
Scope 1 diesel	113,301	99,900	91,030
Scope 1 fugitive	11,053	8,575	<mark>6,941</mark>
Scope 2 (tCO2-e)	53,053	39,446	37,044
Total (Scope 1 and 2)	178,125	148,556	135,015
ROM coal production (t)	12,920,522	9,373,538	8,028,889
Emissions intensity per t ROM coal	0.014	0.016	0.017

<sup>&</sup>lt;sup>57</sup> Energy Savings Action Plan.

#### Mt Owen

#### Summary

- No evidence that renewable energy is being considered or purchased to lower Scope 2 emissions. MGO claim in their GHG plan that these emissions are "not under the direct operational control of MGO".
- Emissions intensity has increased per tonne of ROM coal mined
- Despite diesel being "responsible for the majority of MGO's energy use", there is no indication that biofuels or electrification of vehicles is under consideration to improve diesel emissions

	2018/19	2019/20	2020/21
Mt Owen Mine			
Scope 1 (tCO2-e)	155,363	175,794	159,884
Scope 1 diesel	134,400	133,950	118,504
Scope 1 Fugitive	20,963	41,844	41,380
Scope 2 (tCO2-e)	42,238	0	34,065
Total (Scope 1 and 2)	197,601	175,794	193,949
ROM coal production	8,930,000	8,060,000	7,780,000
Emissions intensity per t ROM coal (Scope 1 and 2)	0.022	0.022	0.025

#### Glendell

#### Summary

- No evidence that renewable energy is being considered or purchased to lower Scope 2 emissions. MGO claim in their GHG plan that these emissions are "not under the direct operational control of MGO".
- Despite diesel being "responsible for the majority of MGO's energy use", there is no indication that biofuels or electrification of vehicles is under consideration to improve diesel emissions.

	2018/19	2019/20	2020/21
Glendell			Jan to Dec 2021
Scope 1 (tCO2-e)	154,414	158,721	119,101
Scope 1 diesel	107,776	111,377	92,660
Scope 1 Fugitive	46,632	47,344	26,440
Scope 2 (tCO2-e)	1,587	43,444	1,945
Total (Scope 1 and 2)	156,001	202,165	121,846
ROM coal production	4,240,000	3,560,000	3,300,000
Emissions intensity per t ROM coal (Scope 1 and 2)	0.037	0.057	0.037

#### Ravensworth Open Cut and Ravensworth Underground

- Over the last three years, the mothballed Ravensworth Underground mine emitted 493,467 t CO2-e without producing a single tonne of coal.
- There is no evidence that renewable energy is being considered or purchased to lower Scope 2 emissions attributable to Ravensworth Open Cut.

- There is no indication that biofuels or electrification of vehicles is under consideration to improve diesel emissions at Ravensworth Open Cut.
- Total Scope 1 emissions at Ravensworth Open Cut increased despite coal production decreasing.

#### Ravensworth Complex Annual Review 2021:

- "The combined Ravensworth Open Cut and Ravensworth Underground ... GHG emissions for 2021 were 495,798T C02-e."
- "There were no significant issues regarding GHG throughout the reporting period.
- At S 6.15.4 of the 2021 Annual Review, under 'Proposed Improvements, Glencore state: "There are no proposed improvements for greenhouse gas management in 2022."

Ravensworth Open Cut	2019	2020	2021
Scope 1 (tCO2-e)	311,740	302,225	324,204
Scope 2 (tCO2-e)	11,567	58,409	10,690
Total (Scope 1 and 2)	323,307	360,634	334,894
ROM coal production	14,922,000	13,324,000	12,863,000
Emissions intensity per t ROM coal	0.022	0.027	0.026

Ravensworth Underground	2019	2020	2021
Scope 1 (tCO2-e)	161,513	161,527	155,993
Scope 2 (tCO2-e)	4,638	4,885	4,911
Total (Scope 1 and 2)	166,151	166,412	160,904
ROM coal production	0	0	0
Emissions intensity per t ROM coal	N/A	N/A	N/A

### Ulan Coal

Ulan Coal Mines Pty Limited (UCMPL) operates the mine as a joint venture, managed by Glencore Coal Assets Australia (GCAA).

- Ulan Coal appears to have the 2nd highest Scope 2 emissions of any coal mine in NSW (2nd only to South32's Bulli Seams / Appin mine), although they argue it is less than the industry average.
- There is no evidence that renewable energy is being considered or purchased to lower Scope 2 emissions.
- The Plans suggest some small improvements to their bulldozers to increase fuel efficiency.<sup>58</sup>
- "Common fugitive emission management controls such as flaring, methane capture and energy production have been considered for the Ulan Mine Complex; however, internal evaluation has either deemed the technologies technically unfeasible or very low priority due to their relative cost of abatement."
- "The Ulan Mine Complex underground workings do not require pre-drainage to manage methane levels. Without a pre-drainage system supplying high concentrations of methane

<sup>&</sup>lt;sup>58</sup> <u>Ulan Coal Air Quality and Greenhouse Gas Management Plan</u>.

it is not technically feasible to flare methane and/or capture methane for energy production. It may be technically possible to install a thermal flow reversal reactor (TFRR) to oxidise low methane concentrations in the air flow exhausted from the underground ventilation system, however, an equivalent investment at a gassy site would generate a better greenhouse gas control outcome for GCAA and the environment."<sup>59</sup>

Ulan Coal Mines - underground and open cut	2018/19	2019/20	2020/21
Scope 1 (tCO2-e)	59,829	36,147	41,154
Scope 2 (tCO2-e)	133,908	147,057	151,559
Total (Scope 1 and 2)	201,825	183,205	192,713
ROM coal production	12,623,841	11,166,859	12,511,000
Emissions intensity per t ROM coal	0.016	0.016	0.015

<sup>&</sup>lt;sup>59</sup> <u>Ulan Coal Air Quality and Greenhouse Gas Management Plan</u>.