

THE INCREASING IMPORTANCE OF CLIMATE ACTION IN MINERAL RESOURCE AND RESERVE REPORTING

The materiality of climate action in mineral resource and reserve reporting will surge in the decade ahead. Climate action is already of high interest to investors. The primary framework for discourse on climate action between companies and their investors is currently the recommendations of the Taskforce for Climate-Related Financial Disclosures (TCFD). Miners need to make disclosures in accordance with these recommendations. Identified risks and strategies, and associated targets and metrics, presented in TCFD disclosures should be assessed as part of the mineral resource and reserve reporting process.

Bold commitments, targets and strategies are emerging

Decarbonization is starting to feature in the operating strategies of mining companies, influencing acquisitions and divestments, as well choices of exploration targets, project-stage-gate decisions, investments in existing operations and closure planning. Today's investors demand more transparency and detail on these strategies and on how these are being accounted for in annual reports and financial models.

Many mining companies have committed to net zero Scope 1 and 2 emissions by 2050. The ICMM members' joint commitment to this in October 2021 means that at least one third of the industry has this commitment. Furthermore, most of the miners who have net-zero targets are working out ambitious interim targets for the next five or ten years. A few have already published targets for deep cuts in emissions by 2030 or earlier. Examples are Anglo American, AngloGold Ashanti, Barrick, BHP, Goldfields, Newmont, Polymetal, Resolute, Rio Tinto, Teck and Vale. Their targets relate to Scope 1 and 2 emissions and present cuts of 30% to 50% against company-specific baselines.

Such targets are not overblown. Net zero pledges have been made by over 130 countries. Most are for 2050 or sooner, but five countries have pledged net zero by 2060 (China, Russia, Indonesia, Saudi Arabia and Nigeria) and India has pledged to be net zero by 2070. The Glasgow Climate Pact reached at 2021 Climate Change Conference (COP26) commits countries to revisit and strengthen their pledges by the end of 2022, with the ambition of limiting surface warming of the planet to 1.5°C above its pre-industrial average by 2100. The 1.5°C goal can only be reached if carbon emissions are almost halved by 2030 and further cuts in emissions are sustained in the next two decades.

While decarbonization targets signal a commitment to climate action, they can only be viewed as robust if they are underpinned by measurements of greenhouse gas (GHG) emissions and science-based evaluations of the means to achieve the targets.

Benchmarking and legislation promoting decarbonization of metals add further pressure

Carbon metrics are used to benchmark the performance of mining companies and can influence access to capital and sales of mineral products. Carbon intensities of metals are being used to rank companies by investor-facing rating agencies. Coupled with this, governments are introducing legislation that distinguishes and promotes decarbonization of metals needed for the green economy. The European Union set precedents with the Taxonomy Regulation, imminent Carbon Border Adjustment Mechanism (CBAM) and proposed Battery Minerals Regulation. Laws and

standards are also becoming more precise about what constitutes effective climate action, limiting greenwashing. For example, the EU Taxonomy defines and classifies sustainable steel and aluminium production with reference to the carbon intensities of the metals.

Decarbonization requires deep thinking and capital

Decarbonization of mines requires radical thinking and substantial capital allocation. Offsets are not decarbonization solutions; they are only valid when applied to residual emissions, after actions have been taken to measure GHG emissions and substantially reduce these. Existing carbon intensive operations with a decade-or-so of life are difficult to decarbonize. This is particularly true where justification and implementation of a new lower-carbon power supply, retrofitting of plant and/or replacement of fleet is required.

In comparison, decarbonization of development projects is much easier, particularly at an early stage of planning when a diversity of options for this can still be tested. Options to avoid or reduce GHG emissions should be evaluated iteratively from the scoping stage of planning onwards. These should cover power and fuel supply, mining methods and mine designs, haulage and other transport methods and routes, methods of comminution and further processing, and heating and ventilation, if relevant.

Disclosures on climate action are rapidly increasing

Disclosures to investors on climate action are increasing. In the United Kingdom, mandatory TCFD reporting is being phased in across non-financial and financial sectors of the UK economy. Premium-listed companies on the London Stock Exchange are the first on the list and must do this linked to annual reporting, on a comply-or-explain basis, for financial years beginning on or after 1 January 2021.

The preferred framework for climate action disclosures is the TCFD recommendations. The TCFD disclosures are generally linked to annual reporting, although this framework may be tweaked in the next year. New Sustainability Disclosure Standards are to be developed in 2022 by the new International Sustainability Standards Board (ISSB) to meet investors' ESG information needs, as announced in November 2021 by the International Financial Reporting Standards (IFRS) Foundation¹. These will consolidate existing disclosure standards. The ISSB will work in close cooperation with the International Accounting Standards Board (IASB), ensuring connectivity and compatibility between the new standards and the IFRS Accounting Standards.

Climate-action disclosures are also being promoted by regulatory authorities in many other jurisdictions, with legal obligations for this under consideration in some². In 2021, the US Security Exchange Commission (SEC) consulted issuers and investors on strengthening the existing climate disclosure requirements, which dated back to 2010³. Based on this consultation, the SEC plans to issue new climate disclosure requirements⁴. Another example is the Hong Kong Stock Exchange (HKEX) incorporation of some recommendations of the TCFD into issuer reporting requirements. Further alignment with TCFD recommendations is under discussion. The HKEX has announced that it

¹ <https://www.ifrs.org/news-and-events/news/2021/11/ifrs-foundation-announces-issb-consolidation-with-cdsb-vrf-publication-of-prototypes/>

² <https://sseinitiative.org/wp-content/uploads/2021/06/Model-Guidance-on-Climate-Disclosure.pdf>

³ <https://www.sec.gov/sec-response-climate-and-esg-risks-and-opportunities>

⁴ <https://www.skadden.com/insights/publications/2022/01/2022-insights/litigation/climate-related-securities-suits>

will review its ESG reporting framework to further align with TCFD recommendations and will collaborate with other regulators to work on a roadmap to evaluate and potentially adopt the new standard(s) to be developed by the ISSB⁵.

Transitional risks and opportunities that companies are encouraged to think about as part of TCFD reporting relate to factors such as carbon pricing, increased costs of raw materials, shifts in consumer preferences, uncertainty in market signals, and access to capital.

Companies are encouraged to use internal carbon pricing as an exercise to prepare for and evaluate the effect of carbon pricing on business revenues. The exercise helps with appreciation of the materiality of carbon risk and motivates de-risking against future carbon pricing. Some companies go beyond shadow carbon pricing to application of an internal tax system, which is then used to raise funds for internal sustainability initiatives. Guidelines on internal carbon pricing are lacking and variations on prices used are wide. The United Nations Global Compact called on businesses to adopt an internal carbon price of at least USD100/tCO₂e by 2020⁶. Such a carbon price could be crippling to a marginal mine. Information on carbon pricing schemes and carbon prices across the globe is readily available on the World Bank Carbon Pricing Dashboard⁷.

Investors are interested in climate resilience too. The spotlight on climate adaptation risk is expected to increase in 2022 and will not just be framed from the perspective of physical risks and financial consequences, it will be framed in terms of impacts on humans, biodiversity and ecosystems and meeting the United Nations Sustainable Development Goals. The expectation is based on core themes of the next volume of the Intergovernmental Panel on Climate Change (IPCC) AR6 report, due in February 2022, and Egypt's proposals for COP27.

Attention to climate change resilience is set to increase

Risks from climate change and adaptation solutions are generally not getting the same level of attention as decarbonization. Perhaps this can be attributed to the site-level and multi-disciplinary input required to define the physical risks, to engineer climate adaptation solutions and to assess the adequacy and effectiveness of such actions.

Legislation and standards relevant to mine design and closure planning are steadily introducing requirements to predict how the setting of the mine will change during the life of a mine and post closure, in response to climate change, and the consequences for the mine and others that might arise. For example, climate change is identified as a key consideration in the Global Industry Standard on Tailings Management.

Investors are under pressure to make climate action disclosures too

When thinking of investor interests, it is important to appreciate that financial institutions are also under pressure to decarbonize and reduce physical climate risks in their portfolios and to disclose information on their climate action. The pressures don't just come from their stakeholders, but also from ranking and rating by public-facing agencies, emerging law and climate governance frameworks such as the Glasgow Financial Alliance for Net Zero (GFANZ).

⁵ https://www.hkex.com.hk/News/Regulatory-Announcements/2021/211105news?sc_lang=en

⁶ <https://carbonpricingdashboard.worldbank.org/what-carbon-pricing>

⁷ <https://carbonpricingdashboard.worldbank.org/>

Sustainable finance disclosure law is already in place in the EU and is imminent in the UK. The EU law, specifically the EU Sustainable Finance Disclosure Regulation and the EU Taxonomy Regulation, requires financial institutions to disclose how they integrate sustainability into their decision making and the percentage of their portfolios invested in sustainable economic activities. As part of this process, they need to obtain and disclose specific information from investees on principal adverse impacts, which include carbon emissions.

Greenwashing is a liability

Mining companies are being careful about making climate-action promises that cannot be fulfilled, recognising that these could create liabilities. Climate action is forward looking so disclosures need careful attention. There is much law that provides for legal contest of false or misleading ESG information, including consumer, contract and competition law. Both the EU and UK Market Abuse Regulations provide for this too. In October 2021, the UK Competition and Markets Authority (CMA) published a Green Claims Code that sets out six key checks for companies to make to ensure green claims are genuinely green.

What does this mean for mineral resource and reserve reporting?

Clearly, climate action needs to be addressed overtly in mineral resource and reserve reporting. Information that should be considered (if available) when determining reasonable prospects for eventual economic operation and converting resources to reserves includes:

- GHG emissions and the carbon intensity of mineral products for each of the assets (predictions for projects and actual measurement for existing operations);
- identified transitional risks and decarbonisation targets, which should be science-based;
- identified physical risks and adaptation solutions;
- the climate action strategy and financial provisions for this; and
- climate action progress and performance, ideally compared to that of peers and what has been promised by the company in past disclosures to stakeholders.