Taking ESG seriously: The crucial role of mining investors in the energy transition

Taking ESG matters seriously improves business performance; ESG best practice must become integral to the business and should be a "given" in any mining project as White & Case partners **Kamran Ahmad** and **Rebecca Campbell** explain.

In November, world leaders, policy makers and climate scientists meet in Glasgow for the UN Climate Change Conference (COP26) in the wake of the landmark *Intergovernmental Panel on Climate Change (IPCC)* report published in August 2021.

The *IPCC* report, a "code red for humanity" according to the UN Secretary General, contains stark warnings and a call on the international community to do more in response to climate change.

Given the sobering assessment of the *IPCC*, the pressure to agree coordinated measures to mitigate climate change is expected to grow at COP26 and beyond.

Lenders to, and investors in, mining projects will play a crucial role in the energy transition through providing the capital that is required to mine the minerals that will drive the transition to net-zero. The mining sector is already familiar with the challenges presented by increasingly urgent carbon reduction targets and the opportunities arising from the mining of minerals required to deliver the clean energy transition.

However, unlike commodity booms of old, there will be no race to the bottom on environmental, social and governance (ESG) or sustainability considerations. To be bankable, these mine development projects will need to take into account ESG and sustainability best practice at every stage, from inception to mine decommissioning, and throughout the supply chain.

Energy transition driving demand for minerals

Over the past decade, wind and solar power have become among the cheapest sources of energy. The cost of lithium-ion batteries has dropped by more than 80 percent in the same period. Battery storage deployment has increased fivefold since 2017, meaning renewable sources of energy can transition from variable and intermittent sources of power to baseload.

In addition, the size and capacity of wind turbines, solar farms and battery storage have all increased dramatically over recent years. These developments mean battery storage and wind and solar farms will consume ever-greater quantities of minerals.

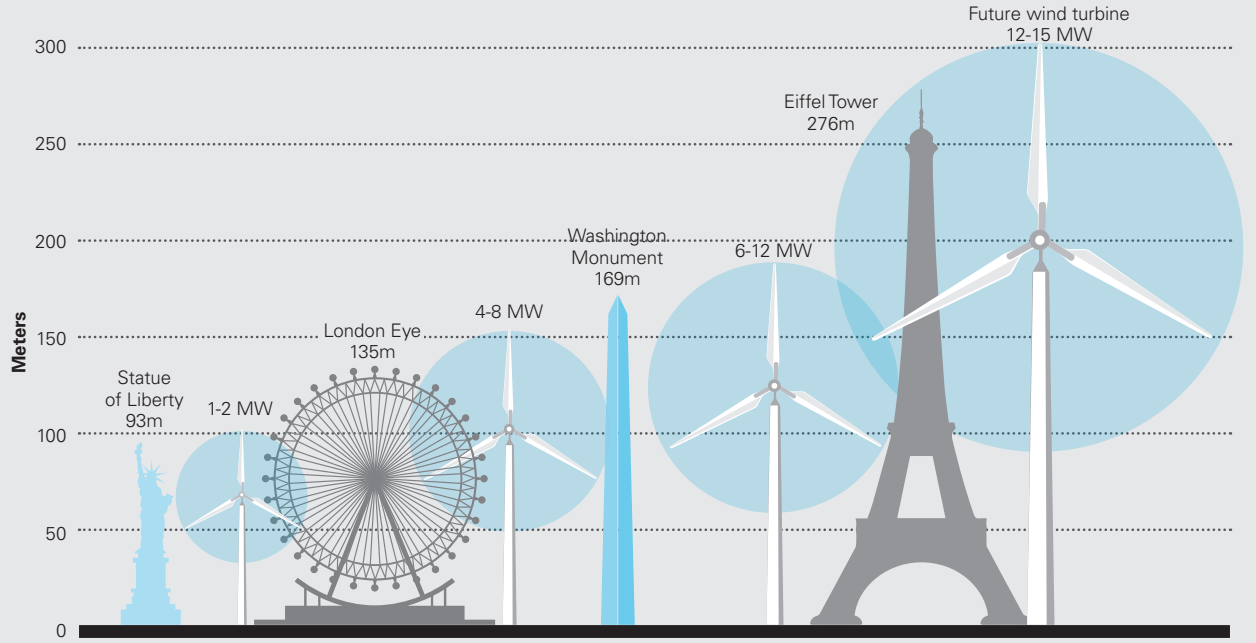
The World Bank has estimated more than three billion tonnes of minerals and metals will be needed to deploy sufficient renewable power and energy storage, required to keep the rise in mean global temperatures to below 2°C above pre-industrial levels, consistent with the 2015 Paris Agreement.

965%

Global production of lithium is projected to rise by 965% by 2050

"Lenders and investors will play a crucial role in the energy transition by providing capital to mine the minerals that will drive the transition to net-zero, but these projects will need to be bankable, and be ESG-focused

Evolution of the wind turbine



Source: Power Technology

Global production of critical minerals used in technologies essential to a low-carbon future is projected to rise by 965 percent for lithium, 585 percent for cobalt, 383 percent for graphite, 241 percent for indium and 173 percent for vanadium by 2050.

This demand will be driven by the requirements of each specific clean energy technology. For example, copper and molybdenum are used in a range of technologies, while other minerals such as graphite and lithium may be required only for battery storage applications. As a result, technological change and the uptake of clean technologies will have a significant influence on mineral consumption and demand.

The effect of the energy transition and ESG considerations in influencing mineral demand and as a catalyst for technological advances cannot be overlooked. Given that 70 percent of cobalt is currently mined in the Democratic Republic of the Congo, the presence of cobalt in supply chains has become a matter of concern for many end-users. These concerns have in turn driven the desire to find alternative sources of cobalt as well as searching for technological advances to reduce the use of cobalt in batteries.

Recycling and reuse of minerals will have to play an increasingly important role in meeting demand for many energy transition minerals, but this alone will not be sufficient to supply renewable energy technologies and energy storage needs.

In the battery sector alone, battery waste is forecast to be between one to four million tons per year globally by 2030. Since the supply chain for battery waste recycling is still in its infancy, what happens to a battery at the end of its working life should be a particular area of focus from an ESG and sustainability perspective. The same holds true in the case of other minerals that are deployed in clean and renewable technologies.

ESG and sustainability critical to a project's bankability

The unprecedented demand for energy transition minerals needs careful consideration from an ESG and sustainability perspective. Mining companies routinely identify ESG and sustainability issues, including environmental risks, community relations and their social license to operate, as some of the most important challenges they face.

Ensuring that borrowers have taken appropriate ESG and sustainability considerations into account has become a priority for many mining investors as well as financiers across the spectrum —from export credit agencies, development finance institutions and commercial lenders, through to stream and royalty financiers.

Research shows that after successful implementation of ESG and sustainability initiatives, mining companies become more attractive to investors and financiers alike.

For example, consultancy firm Bain recently analyzed Rabobank's commercial loan portfolio and found a substantially lower credit risk among companies that performed well against ESG criteria. Particularly noteworthy was the conclusion that borrowers with low-ESG performance were twice as likely to be in arrears as the high-ESG performers, all else being equal. Bain attributed this to management decisions that emphasize long-term financial stability and sustainability when allocating resources.

Practical implications for the financing of mining projects

ESG and sustainability considerations in mining finance have evolved rapidly in recent years, and are now an integral feature of every deal. In corporate and leveraged lending, ESG and sustainability considerations were introduced through the development of standalone green loan and sustainability-linked loan products.

3 billion tonnes

The World Bank estimates more than three billion tonnes of minerals and metals will be needed to deploy sufficient renewable power and energy storage to keep the rise in mean global temperatures to below 2°C above pre-industrial levels

However, mining project financiers have for many years imposed project-specific environmental and social covenants on their borrowers, including environmental social impact assessments and environmental social action plans (ESAPs).

While mining financiers are attuned to environmental and social considerations in their lending decision-making, as other lending disciplines have evolved their own approaches towards ESG and sustainability matters, there are a number of developing trends.

In addition to traditional environmental and social reporting covenants, enhanced ESG and sustainability reporting are becoming standard provisions in loan documentation, particularly in relation to lenders' own internal ESG policy requirements. Non-traditional, but sophisticated, mining finance providers are also embedding ESG covenants and sustainability reporting in their deals.

Satisfaction with a financier's internal ESG and sustainability reporting requirements is, on some deals, becoming a discrete compliance requirement. For example, in the context of a change of control, a permitted transferee may be subject to conditions relating to compliance with lender ESG requirements.

The appointment of a lender to take on an ESG or sustainability coordinator role may also emerge in mining finance deals.

There is a growing body of evidence to demonstrate that taking ESG matters seriously improves business performance; ESG best practice must become integral to the business and should be a "given."

Critically, the secular push for green energy and electrification has seen copper prices rise to their highest levels in years, while the demand for battery metals continues to surge. As billionaire mining investor Robert Friedland put it: "Forget the 'super-cycle,' this is bigger."

Mineral production and 2050 projected annual demand from energy technologies (in tons, thousands)

Mineral	2018	2019	2020e	2050 projected annual demand from energy technologies	2050 projected annual demand from energy technologies as percentage of 2018 annual production
Aluminum	60,000	63,200	65,200	5,583	9%
Chromium	36,000	44,800	40,000	366	1%
Cobalt	140	144	140	644	460%
Copper	21,000	20,400	20,000	1,378	7%
Graphite	930	1,100	1,100	4,590	494%
Indium	0.75	0.968	0.9	173	231%
Iron	1,200,000	1,520,000	1,500,000	7,584	1%
Lead	4,400	4,720	4,400	781	18%
Lithium	85	86	82	415	488%
Manganese	18,000	19,600	18,500	694	4%
Molybdenum	300	294	300	33	11%
Nickel	2,300	2,610	2,500	2,268	99%
Silver	27	26.5	25	15	56%
Titanium	6,100	8,400	8,200	3	0%
Vanadium	73	86.8	86	138	189%

Source: Data for annual production sourced from the US Geological Survey