BARINGS

PUBLIC EQUITIES

Natural Resources: Bridging the Gap to a Cleaner Future

BARINGS INSIGHTS

There is a strong case to be made that resources companies are part of the solution—not the problem—when it comes to tackling climate change.

Clive Burstow
Head of Global Resources

BARINGS

"Climate Change is the defining issue of our time and we are at a defining moment."

United Nations

When it comes to extreme climate events, 2021 was a record-setting year. From wildfires across the Mediterranean and U.S. Northwest, to hurricanes and severe flooding in many parts of the world, climate change has become a prominent part of the global conversation. While there is some consensus around **what** needs to be done to tackle this urgent and enormous challenge, solving for the **how** is much more complicated.

In order to limit temperature rises across the world to 1.5C by 2050, as called for by the Paris Climate Agreement, a drastic reduction in greenhouse gas (GHG) emissions will be required. Efforts to achieve 'net zero' emissions by 2050 have primarily targeted carbon, given that it is the largest single emitter of GHGs and produced in significantly larger volumes than the second-largest emitter, methane. Resources-intensive mining, steel and energy industries have accordingly come under fire, as they produce large amounts of carbon through processes like coal mining, oil and natural gas extraction, and steel production. Coal, for example, accounts for over 40% of total GHG emissions[1].

But what people may not realize is that there are a number of 'good actors' across these industries as well, which—perhaps counterintuitively—will play a pivotal role in bridging the gap to a greener and more sustainable future.

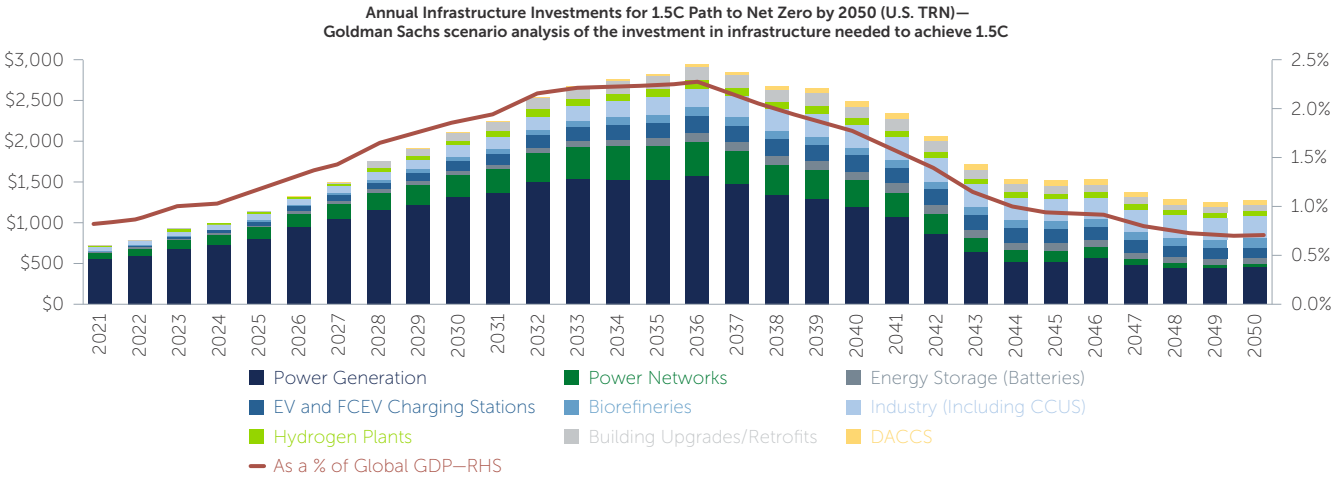
Why Resources Are the Solution (Not the Problem)

Reaching 'net zero' emissions by 2050 is a tremendous undertaking, requiring a complete transformation of a global energy grid designed to run off of fossil fuels—thermal coal, oil, natural gas, etc.—to one with renewable power at its core. As part of that, by some estimates, wind and solar will need to account for roughly 55% of total global energy supply, up from just 6–7% today.[2] It also means rethinking the 80% of our energy that currently comes from oil, natural gas and coal.[3]

1. Source: International Energy Association (IEA), CO2 Emissions from Fuel Combustion 2021. As of April 2021.
2. Source: IPCC, BP. As of September 2020.
3. Source: Environmental and Energy Study Institute. As of July 22, 2021.

Tackling a challenge of this scale will require massive investment in areas like renewable power, sustainable infrastructure and clean agriculture **(Figure 1)**. Notably, almost all of this infrastructure is resource-intensive, reliant on inputs ranging from copper to aluminum to hydrogen. For example, an offshore wind farm needs an estimated five times more steel on average than an onshore fossil fuel power plant producing the same amount of power.[4] Many wind turbines also require lubricants made from petroleum and concrete platforms that come from construction materials companies. To put this another way, we are at the precipice of a global mega-demand trend, and resources are at the heart of the solution.

Figure 1: Significant Investment Needed to Achieve Net Zero



Source: Goldman Sachs Investment Research. As of September 24, 2021.

RESOURCES COMPANIES FACING UP TO THE CHALLENGE

There is no denying that today, many natural resources sectors are carbon-intensive. But a closer look at the companies in the space reveals that many are actually facing up to their challenges quite well—and have been taking steps, in some cases for years, to implement cleaner and safer processes. The mining industry is one example. Perceived as negative from an ESG perspective, the industry has become a mainstay on investor exclusion lists. But what these blanket exclusions fail to recognize is that mining is, in fact, in the midst of a quiet revolution that is delivering more change than the industry has seen in decades. There are bad actors, to be sure, but there are also good companies that are aiding in the transition to a more sustainable, safe and efficient industry, through the use of tools such as:

- Innovative technologies, including artificial intelligence that reduces mine footprints and the impact on the natural environment (while increasing operational efficiencies).
- Waterless processing methods, which reduce the impact a mine has on local aquifers that might be used by other industries.
- Alternate fuel sources, such as hydrogen and hybrids, are being used to reduce emissions onsite. For example, U.K. diversified mining company **Anglo American** is developing a hydrogen-powered 290-ton mine haul truck, the largest conversion of its kind, as a step toward significantly reducing carbon emissions across its operations.

4. Source: Arcelor Mittal. As of December 2020.

The steel and energy industries are going through a similar transformation. Steel producers are moving toward low carbon steel—or in some cases, zero carbon steel—through the introduction of hydrogen into the process. For example, Swedish steel producer **SSAB** is working with industrial company Vattenfall to build a hydrogen-powered steel plant, and is planning to heat its North American steel furnaces with renewable energy by 2022.[5] And in the energy industry, a number of the big oil refiners and producers are taking their cash flows from oil and making significant investments in wind, solar, electric vehicle charging, hydrogen and more.

Another sector worth mentioning is agriculture, given that it is a large contributor to rising methane levels. While the dynamics at play are different than those shaping extractive industries, the sector will similarly face strong, long-term demand given its necessary role in feeding a global population of seven billion and growing. Against this backdrop, and with more investors turning an eye toward methane emissions, the agriculture industry is also evolving. In particular, some companies are using innovative technologies, such as precision and digital ag, biological solutions and seed technology, to help improve agricultural productivity while lowering overall environmental impact. Dutch chemical company **DSM**, for instance, created an animal feed additive called Bovaer that inhibits cows' methane emissions by up to 30%.[6]

Why Now?

"Time has quite literally run out."[7]

HRH The Prince of Wales

While 2050 seems to be a long way away, climate-mitigating solutions require time. Take copper, which is a necessary component of clean energy, and thus, of decarbonizing the environment. Just to accommodate the estimated 30–40% increase in electric vehicles between now and 2030, an extra four million tons of copper will be required.[8] However, it can take up to a decade to find, build and commission a copper mine of the scale needed. Adding to the challenge is that the largest mines currently under development are capable of producing 300,000 tons of copper per annum—while this is sufficient to meet the current demand for copper, it's not enough to meet the demand increase from EVs and the associated charging infrastructure. It's a similar story for aluminum, nickel, cobalt, lithium, etc.—without these commodities, we cannot move away from fossil power.

5. Source: SSAB.
6. Source: DSM.
7. Opening Ceremony of COP26 on November 1, 2021.
8. Source: Deutsche Bank Research. As of September 2021.

The scale of the challenge is indeed enormous, but the problems are solvable by taking a pragmatic approach to both investing in, and divesting from, natural resources. A key challenge for many of these companies lies in the costs and incentives of transitioning to cleaner practices. Whereas companies may have traditionally put their capital toward two or three key areas—paying down debt, returning money to shareholders, and investing in the business (sustainable and growth CAPEX)—there is now a fourth bucket: ESG. As companies are beginning to put prices around ESG-related processes, such as decarbonizing steel operations, it's becoming clear that in many cases, they are almost prohibitively high.

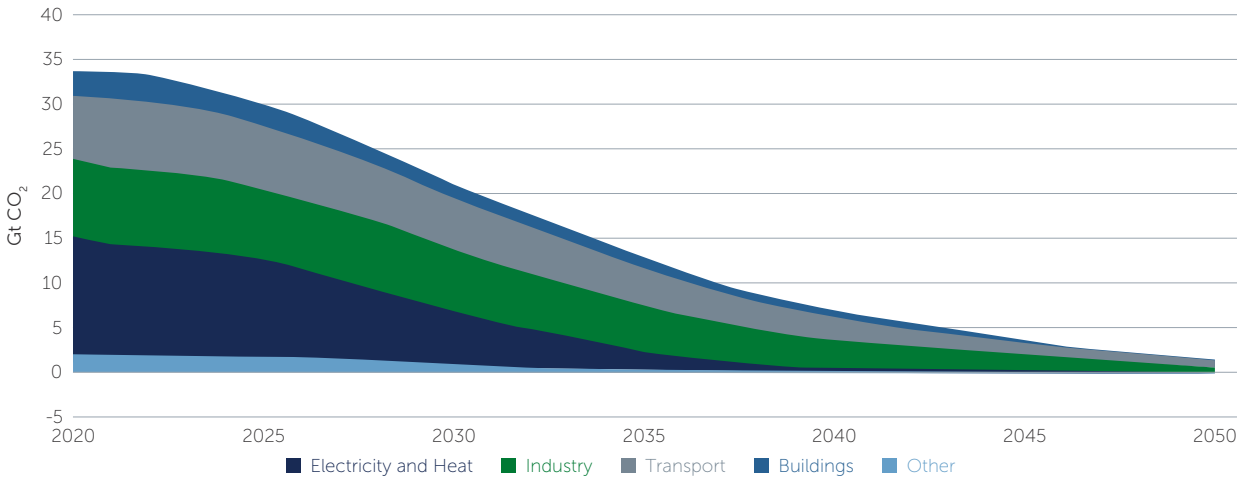
ENGAGING FOR POSITIVE CHANGE

For this reason, we believe now is the time to engage with these companies to help drive positive change, rather than broadly exclude certain industries. Many companies are making notable strides when it comes to ESG, as mentioned, but will require the incentives—from a price and regulation perspective, as well as from financial markets—to continue on their positive trajectory.

With the right support in place, it is not outside the realm of possibility that some of the worst carbon emitters today could become some of the cleaner industries by 2050, through investment in processes like carbon capture solutions, automated technology and green hydrogen production. This is an interesting juxtaposition to the tech sector, which is considered one of the cleaner industries today. However, in the next few decades, data centers are likely to consume a significant portion of all energy produced. If renewable power isn't the majority provider of energy by 2050, these centers will be consuming huge amounts of fossil-generated power.

Herein lies the opportunity. As it stands today, many investors have negative views of resources companies given the perception of the sector's ESG practices and records. This is despite the fact that many of these companies have little debt and are trading on single-digit P/E ratios, generating strong free cash flows, and paying high dividend yields to shareholders. As demand for renewable infrastructure grows, and resources companies make the transition from being big polluters to being significant contributors to a cleaner world, the perception of these companies will likely change. Ultimately, we believe this has the potential to drive re-ratings of companies' P/E multiples and lead to higher valuations. But again, engagement is key, not only to differentiating between the 'good' and 'bad' actors, but also to ensuring that companies are being held accountable for best practices, and that they continue to educate investors about their ESG practices and policies.

Figure 2: CO2 Emissions by Sector in the Pathway to Net Zero



Source: IEA. As of May 2021.

Key Takeaway

There are many reasons to believe that resources companies are part of the solution, not the problem, when it comes to tackling climate change. In order to meet the targets set by the Paris Climate Agreement, massive investment in renewable infrastructure will be needed. But there is no renewable energy without natural resources, which is why we believe painting the resources sector as a 'bad actor' with one broad brush is a mistake. Rather, there is a compelling case to be made for engaging with the good companies in the space to promote further positive change—as it has become fairly clear that these companies will be key drivers of the transition to a more sustainable future.

Why Barings?

At Barings, analyzing and incorporating ESG issues is integral to our investment process. Our approach to ESG enables us to have a better understanding of the inherent challenges and opportunities that natural resources companies face:

- We integrate ESG into our bottom-up, fundamental research process.
- We take a forward-looking, dynamic approach to a company—as we believe the "direction of travel" for a company in terms of ESG can be as important (if not more important) than the current state.
- We actively engage with companies to improve their ESG credentials.

In fact, many of the resources companies that we focus on, and invest in, have fully embraced the rapidly evolving ESG and sustainable thematic in areas such as climate change, carbon emissions, and waste reduction and safety. We also have a track record of innovative research across the sector—produce material on topics ranging from electric vehicle penetration, to ESG in mining, to sustainable agriculture.

1994

Established track record of investing in the natural resources sector

50+ YEARS

Established team with over 50 years combined experience in the resources sector

$397M[9]

AUM in the global resources sector

9. Source: Barings. As of September 30, 2021. AUM is quoted gross of cross-investments, in USD.

Barings is a $391+ billion global investment manager sourcing differentiated opportunities and building long-term portfolios across public and private fixed income, real estate and specialist equity markets. With investment professionals based in North America, Europe and Asia Pacific, the firm, a subsidiary of MassMutual, aims to serve its clients, communities and employees, and is committed to sustainable practices and responsible investment.*

LEARN MORE AT **BARINGS.COM**

**As of December 31, 2021*

22-1977953