

Sustainability

The path to a clean energy future

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Key takeaways

- What does transitioning to a low-carbon future look like from an environmental, political, and economic standpoint? The private sector plays a key role in answering this question as investor focus shifts from confirming corporates' long-term net zero commitments to unpacking the investments and strategic business decisions that will enable target achievement.
- Recently, corporate executives, sustainability experts and investors from across industries came together to discuss how to ensure an affordable, reliable and just transition. We learned that new technologies and incentives are driving capital flows to sustainable investment.
- However, despite progress-to-date there are challenges on the road to a clean energy future, including: Scope 3 measurement and disclosure, a lack of defined regulatory frameworks, and how corporates are using carbon offsets.

A clean energy future

In 2019, the US consumed more energy from renewables than coal for the first time in history, and this pattern has since continued. Yet, for every US company that set a decarbonization goal in 2018, only 2% are on track to meet their goals, according to BofA Global Research.

Making the switch to clean energy or renewables is a decarbonization strategy that has witnessed a surge over the years on the back of consistently declining costs. The transition towards renewable energy has continued to gain momentum, with more companies setting ambitious targets to reduce their greenhouse gas emissions and increase their use of renewable energy sources. These sources have expanded beyond wind and solar to also include investment in nuclear and hydrogen.

Increasingly, a path to a clean energy future is becoming a key deliverable in the private sector. Though governments play a strong role in enabling the creation of markets and mandates to aid in reaching net zero, they are often limited by costs and resources. Therefore, public-private partnerships are a critical tool to ensure that the energy transition not only comes to fruition, but also is affordable, reliable, and just - meaning all communities are brought along in the pivot to a net-zero future.

So, what are corporates and private investors doing to ensure this transition happens? Recently, corporate executives, sustainability experts and investors from across industries came together to discuss what it means to accelerate private investment into a low-carbon energy future. Here's what we learned:

1. Net zero targets vary in definition and strategy

Much like sustainability, the phrase "net zero" varies in definition and approach depending on a number of factors including the size of company, sector, or region. For instance, how a global oil and gas company might achieve their net zero goals will differ from that of a smaller, local industrial firm. Despite this, target setting can unilaterally create value for shareholders from corporates across all these factors.

Setting net zero and emission reduction goals is a positive step towards addressing climate change. However, the credibility of these goals depends on several factors, including the methodology used to measure emissions, the extent to which the company can control its emissions, and the accountability mechanisms in place to track progress towards their goals. To better understand this, companies can consider 1) the measurement and disclosure of supply chain emissions, 2) the setting of interim targets, and 3) how to use offsets. But without verifiable data, it is difficult to know whether a company is truly making progress on emission reductions goals, and the lack of visibility can also raise red flags for greenwashing.

Strategies also vary in length, though realistic net zero targets are important to drive tangible results. Adjusting for capital allocation towards project development and implementation are key considerations in developing a net zero strategy. However, a common hurdle for success lies within the duration of the projects themselves, and the operational risk surrounding implementation.

Establishing a baseline and setting Science-Based Targets (SBTs) is an integral element of a credible net zero strategy. SBTs look to align emissions reduction targets with the latest science and are also recognized by major sustainability reporting frameworks, including the Carbon Disclosure Project (CDP). Interim targets should be established to ensure progress towards net zero, and success should be replicated across the value chain.

2. Companies want to commit, but need guidance

Reporting through a recognized policy framework is an essential way for companies to demonstrate their commitment to decarbonization, provide transparent and reliable information to stakeholders, and be held accountable for their actions. Reporting frameworks provide a standardized methodology for companies to report their emissions and progress towards their targets, ensuring consistency and comparability across different organizations. They also provide guidance on what data to collect, how to calculate emissions, and how to disclose information, making it easier for investors, customers, and other stakeholders to assess and compare companies' performance on decarbonization.

The three major disclosure standards and framework organizations include the Global Reporting Initiative (GRI), the International Sustainability Standards Board (ISSB), and the Task Force on Climate-Related Financial Disclosures (TCFD). Given the number of Environmental, Social, and Governance (ESG) frameworks and differences in global ESG disclosures, some companies navigate this by identifying what would yield the most meaningful insights and rely on more stringent and transparent disclosures.

3. Regulatory landscape continues to evolve

Historically, ESG disclosures have been primarily qualitative in addition to being voluntary. This not only leaves room for open interpretation, but also allows for greater variation between how a company might report on a given topic. Because of this, the World Economic Forum also published a consultation paper, which identified a core set of Stakeholder Capitalism Metrics (SCM) and reporting requirements that could be reflected in the mainstream annual reports of companies. The intent of the SCMs is to catalyze a transformation of the reporting ecosystem and encourage convergence, simplification, and standardization for material ESG and longer-term value considerations at the global level.

But a push towards mandatory corporate disclosures can bring greater discipline to producing quantitative metrics and accounting practices. Pointedly, securities laws not only ensure participation across the board, but also provide set definitions to help bring about tangible results. However, the goal of regulation can still vary by jurisdiction. This often can be frustrating and presents challenges for operations within jurisdictions of varying regulations. For instance, the current SEC proposal in the US is primarily focused on financial materiality whereas laws in Europe have a greater range of requirements including nature conservation consideration. While the urgency and focus is squarely on climate, work around human capital, plastics waste and biodiversity is already underway (see [Biodiversity means business](#)).

Regardless, regulations offer promise for organizations that are grounded in their corporate purpose and create value in the long term for all their stakeholders so they are better positioned to deal with the challenges and opportunities of the transition to a greener future.

4. The Inflation Reduction Act incentivizes investment

Policy is one of the most important tools for the private sector to achieve the energy transition. Why? Well, for one, regulation offers a standard or benchmark for measured success. This is particularly important because it offers guidance to corporations with global reach and allows for more focused investment towards those elements of strategy that require more discipline, such as accounting standards.

However, large legislative bills with little guidance also present challenges to companies across sectors, particularly when the details on guidance are evolving. This is currently playing out in the US with the Inflation Reduction Act (IRA). Despite the evolving policy landscape, one of the key long-term positives of the IRA is its potential to as much as double the pace of decarbonization that the US had previously committed to under the Paris Agreement, according to BofA Global Research.

The IRA is also important because it offers stability, which enables companies to finance sustainable projects with greater ease and stronger incentives. For example, it is expected to stabilize energy prices in the long-term by providing predictable cash flows for clean energy and commercializing carbon offsets and other emissions reduction technologies for high-emitting sectors like oil and gas. Plus, low-carbon productions can occur on a larger scale with longer term revenue contracts.

However, the IRA does have its limits – venture capital groups or startups who cannot access these tax incentives are left behind, inhibiting innovation opportunities from these firms. But the IRA's overall focus on domestic manufacturing and job creation is kicking off a virtuous cycle of investment and could enable a durable political consensus for the clean energy transition.

5. Navigating the Scope 3 blind spot

While companies have grown adept at Scope 1 (direct) and Scope 2 (emissions from purchased electricity, heat, etc.) controls, Scope 3 emissions are less well understood. Scope 3 includes "all other emissions that occur in the value chain of a company outside of Scope 1 and 2" and can be up to 10x the magnitude of Scope 1 and Scope 2 emissions combined, according to BofA

Global Research. What's more, BofA Global Research also found that 60% of S&P 500 firms that have pledged net zero have not set Scope 3 targets. The majority of these are also unaligned with the Science Based Target Initiative (SBTi).

However, investors are becoming more aware of and more sensitive to the total carbon footprint of their portfolios. So though tackling Scope 3 emissions is one of the greatest challenges many corporations face in achieving net zero targets, they are increasingly feeling the pressure to do more to minimize their Scope 3 emissions by focusing on investing in proper infrastructure such as carbon capture technology.

6. Carbon credits confusion

According to BofA Global Research, almost half of large US companies plan to use carbon offsets to reach their net zero goals. Carbon offset schemes allow individuals and companies to compensate for their own carbon footprints by investing in environmental projects designed to reduce emissions, thereby making their activities carbon neutral. Offset types could be further classified into 1) Reduction (technology/projects aimed at emission reduction), 2) Avoidance (projects avoiding emission release, e.g., deforestation) and 3) Removals (removing Co₂, e.g., afforestation).

The risk is that companies could potentially use offsets to delay or avoid making real changes to their operations. For example, a company may purchase offsets with the intention of offsetting emissions from a new manufacturing facility, rather than taking steps to reduce emissions from the facility itself. But the passage of legislation like the IRA has allowed for incentives towards advancing direct air capture technology and facility development of carbon capture which enables more accessible conduits for a low-carbon future.

7. The role of innovation

Investing in internal and external innovation is crucial to achieving net zero because it enables the development and deployment of new technologies and practices that can reduce greenhouse gas emissions. These innovations can make solutions more effective, affordable, and scalable. For example, green patents can incentivize the development of sustainable technologies, facilitate technology transfer, and encourage collaboration and partnership to solve environmental challenges. Plus, new quantitative approaches and data processing can help minimize qualitative biases in metrics reporting.

New technologies are needed to help certain sectors get on board to assist in the facilitation of a more feasible transition, financially speaking. In fact, according to estimates from BofA Global Research, 46% of decarbonization will come from current technologies, 50% will come from new or not yet developed technologies, and only 4% will come from consumer behavior change.

Additionally, the continued introduction of new iterations of artificial Intelligence (AI) is becoming an increasingly hot topic (see [Me, Myself and AI: What you need to know](#)), but thoughts on its overall contribution to sustainable efforts are mixed. Though the potential of increased accuracy and provision of real-time data is promising, training machine learning comes with both a high financial and environmental cost.

8. Sustainability in the supply chain

Supply chains are one of the greatest sources of carbon risk, yet most companies are still far away from reporting and managing these risks. How exactly can such risks be mitigated? Heightened training around sustainability practices and metrics is an important initial step.

Engaging with suppliers can help corporates understand suppliers' emissions and the sustainability practices they have adopted already. For many organizations almost 70% of their emissions are in their supply chain, so sourcing and procurement are becoming the engine to drive visibility and transformation on sustainability Key Performance Indicators (source: Accenture). Plus, encouraging suppliers to report their emissions through CDP can help provide valuable information on the emissions profile of the supply chain and help identify opportunities to reduce them moving forward.

Additionally, the re-shoring/near-shoring of supply chains could also result in controlling carbon emissions. This could happen in two ways: 1) reduction in transportation as stretched and complex global supply chains shrink, and 2) developed geographies where these manufacturing capacities could get re-shored are likely to entail stricter emission norms and higher labor costs forcing the use of smart, energy efficient, automation-based green manufacturing techniques.

One of the most clear-cut ways to reduce emissions, especially Scope 3 emissions, is by moving supply chains closer to the consumer. But this potentially inhibits a true just transition, as lower-income consumers who might take the brunt of the cost in this shift in the form of higher goods prices means the "E" (environmental) could come at the expense of the "S" (social).

9. Energy security and cost to consumers are top of mind

Being cognizant of energy security throughout the transition is critical because not only is getting to net zero top of mind but doing so without creating a dislocation in the energy markets is just as important. Geopolitical considerations have pushed the need for energy security to the forefront of conversations around a just transition. Notably, the Russia-Ukraine war has underscored the importance of not just sourcing clean energy, but also ensuring that energy cannot be weaponized.

But energy security has also raised a “green” premium when thinking about where and how companies might invest. An increased cost to capital can translate into an increased cost to consumers. Many companies are factoring this in when setting targets to balance consumer wants with environmental needs.

For example, sectors such as cement and oil and gas are informed by macro conditions such as inflation, while also under particular scrutiny to implement plans towards achieving a low-carbon future. In response, these high-emitting sectors are getting innovative by investing in carbon capture, clean combustion and “green” fuels and mineral extraction in ways that don’t necessarily translate into putting the cost burden on consumers. In doing so, they are emphasizing an affordable, reliable, and ever cleaner transition (see [Delivering the energy transition](#)).

10. A focus on the Global South

Though regulation can help incentivize investment from the private sector, this may not necessarily lead to investment globally, particularly in emerging markets such as the Global South. Country risk and reputational risk within this region might hinder companies from actively engaging in dialogues that enable a just transition.

However, the Global South is becoming an increasingly important region in providing the resources necessary for the energy transition as a whole. With international support as well as policy, private capital can enable new opportunities in the region, ultimately helping the Global South gain faster access to affordable and secure energy. It is through such a transition that developing nations within the Global South can potentially grow faster economically, socially and environmentally.

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