



Executive Insights

Corporate Portfolio Strategy in a World Driving to Net Zero

After a decade of climate deliberations, governments, leading multinationals and large institutional investors are making solid commitments for achieving net zero emissions with accelerating timelines. There is much anticipation ahead of the United Nations Climate Change Conference of the Parties (COP26) that will be held in Glasgow in November. COP26 will mark the start of concerted global action across governments, civil society, investors and businesses to achieve net zero and thus keep the 1.5°C target within reach.

Corporate leaders are facing increasing pressure from investors, consumers, industry peers and value chain partners to take decisive action and develop viable road maps to achieve net zero emissions within target time frames. Institutional investors are already playing a critical role in nudging companies in their investment portfolios toward committing to a net zero road map. The United Nations-convened Net Zero Asset Owner Alliance, representing over \$5.5 trillion in assets under management, has committed to reduce the carbon emissions of their investment portfolios to net zero by 2050. By this, the alliance is ensuring that companies represented in their portfolios are doing their share in limiting global warming to 1.5°C compared with preindustrial times.

For clarity purposes, a company is on track to achieving net zero when it has a viable plan that is aligned with a 1.5°C science-based target for achieving net zero emissions across its full value chain. The plan would entail minimizing the company's emissions and using certified greenhouse gas removal (GGR) only for any residual hard-to-eliminate emissions. This further highlights the importance of hard-to-eliminate emissions and sources of such emissions; we will address this further in the sections below.

Over the past few months, Equinor and Shell took the ambitious steps among integrated energy companies and announced their plans to achieve net zero emissions by 2050. Both Equinor's and Shell's targets cover the emissions from their own operations (Scope 1 and Scope 2 emissions) and the emissions from the use of all the energy products they sell (Scope 3 emissions). This will provide the impetus for other companies in the sector, and service providers and companies in other sectors to commit to similar targets.

The pressure from governments and regulators is projected to increase in view of COP26, with increasing requirements and regulations for tracking, reporting and reducing emissions. For instance, the [Bank of England in a communication in January 2021](#)¹ stated that banks and businesses should start assessing their risk exposures to future climate change and prepare for "carbon prices to more than triple to \$100 per ton by 2030." Carbon prices have edged higher in the months following that announcement. More recently, and within about four months of the previous communication, the [Bank of England increased its carbon price forecast to \\$150 per ton by the end of the decade and further warned banks that they would face "a tipping point similar to a 'Minsky moment' if they fail to prepare."](#)²

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At the same time, technology advancements and learning curves are driving down the costs of renewable energy, energy storage solutions, and carbon capture, utilization and storage (CCUS). In many sectors, technology deployments and emissions reduction measures are years ahead of regulatory requirements. This is a virtuous cycle: More innovation and additional deployments of various emission reduction solutions move us farther along the learning curves of various technologies and lower the costs achieved for everyone's benefit.

The implications of the drive to net zero are far-reaching and go beyond energy and energy-intensive industry sectors. Leading organizations in industrials, technology, transport and logistics, telecommunications, and consumer and retail as well as energy and related industries are assessing their portfolios' current performances with respect to greenhouse gas emissions and developing their strategies and road maps to achieve net zero.

To develop a robust strategy and road map to achieve net zero, decision-makers have to take a methodical approach, starting with diagnosing the portfolio, assessing the performance of each business and pressure testing the respective business models under various carbon regulation scenarios. This would then form the basis for framing and evaluating the corporate portfolio decisions across portfolio rationalization, transforming the core, emission reduction initiatives, and investing in new businesses

and business models. As discussed further below, emissions should be reduced to the lowest possible level before resorting to offsetting any residual emissions using GGR certificates. Also, several important considerations in the development and implementation of any road map will be highlighted.

Diagnosis of the current portfolio, assessment of businesses and supporting business models

A key step in diagnosing the current portfolio is measuring the emissions of each business in the portfolio across the value chain. It is not sufficient to account for the emissions footprint of a specific business; one should also account for the attributable emissions from suppliers to get an accurate picture of the performance of the business and viability of its supply chain and business model under different carbon regulations and pricing.

As part of the portfolio diagnostics, analyzing the sensitivity of earnings and free cashflows of each business to different scenarios of carbon pricing would provide an assessment of the risk exposure in the portfolio to tighter environmental regulations. This would form the basis for assessing the portfolio Value at Carbon Risk (VaCR) based on the current business investments, existing business models and operations. While some portfolios may benefit from internal hedges across the business entities (e.g., some businesses may benefit from tighter carbon regulations or higher carbon prices), the focus should

Scope 1, 2 and 3 emissions

The greenhouse gas (GHG) Protocol Corporate Standard classifies a company's GHG emissions into three categories or "scopes." Scope 1 emissions are direct emissions from owned or controlled sources. Scope 2 emissions are indirect emissions from the generation of purchased energy (including but not limited to electricity, steam, heating and cooling) consumed by the reporting company. Scope 3 emissions are all indirect emissions (not included in scope 2) that occur in the value chain of the reporting company, including both upstream and downstream emissions.

Product life cycle emissions

As defined by the Greenhouse Gas Protocol, product life cycle emissions are "all the emissions associated with the production and use of a specific product, from cradle to grave, including emissions from raw materials, manufacturing, transport, storage, sale, usage, and disposal." The product life cycle emissions standard accounts for emissions at the level of a specific product.

Net zero and limiting global warming to 1.5°C

According to the Intergovernmental Panel on Climate Change (IPCC), limiting global temperature increase at any level requires global CO₂ emissions to reach net zero at some corresponding point in the future and reducing non-CO₂ radiative forcing as much as possible. In model pathways that limit global

warming to 1.5°C, with no or limited overshoot, global net anthropogenic CO₂ emissions decline by about 45% from 2010 levels by 2030, reaching net zero around 2050.

IPCC Model Pathways that limit warming to 1.5°C with no or limited overshoot use carbon dioxide removal (CDR) to some extent to offset emissions from sources that are difficult to abate and, in most cases, also to achieve net negative emissions to return global warming to 1.5°C following a peak. In case of delays in reducing CO₂ emissions toward zero, the longer the delay, the larger will be the likelihood of exceeding 1.5°C, and the greater will be the reliance on net negative emissions after mid-century to return warming to 1.5°C.

Sources: Greenhouse Gas Protocol, IPCC Special Report "[Global Warming of 1.5°C](#)," and IPCC Sixth Assessment Report

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be on minimizing the residual emissions across the entities and enhancing the overall robustness of the portfolio.

Benchmarking the performance of each business with its peers may reveal only part of the story. As may become clear, certain operations, business processes and/or supply chain designs may not be viable under stricter carbon regulations or higher carbon prices. Depending on the importance of a specific business to the core, the feasibility, technology, and costs to achieve the required reduction in emissions — and whether the entity that has the capabilities to achieve such a reduction in emissions — the alternatives for either selling the business or investing and reducing its emissions can be structured and evaluated accordingly.

Further, in view of the accelerating timelines for decarbonization, various businesses that were originally well-positioned for the energy transition are now facing the need to reexamine their strategy and investment hypothesis. For instance, a private equity group that had invested in natural gas businesses and infrastructure, betting on natural gas as a transition fuel, decided to revise its investment strategy in view of early signs of tighter regulations in European markets and the mismatch between the long lifespan of natural gas infrastructure and time frames for achieving net zero.

Framing and developing the portfolio strategic alternatives

The framing of the portfolio strategic decisions would be informed by the results of the diagnosis of the portfolio and the assessment of the performance of each business and its supporting business model under various scenarios of carbon regulations and pricing. The frame should also take into account a top-down view, including the strategic objectives, key investor expectations and any climate commitments, as well as a bottom-up understanding of the businesses in the portfolio, core capabilities, and the drivers of value and risk.

At a high level, the frame would define the portfolio decisions that should be the focus of developing the strategy and road map to net zero, including but not limited to:

- Investment opportunities for transforming the core and reducing the carbon intensity of various core businesses and their supporting business models
- M&A opportunities and investments in new businesses and business models
- Divestment opportunities

Each category above would include a number of investment opportunities that need to be structured, evaluated and compared

to other opportunities inside and outside the portfolio (to cover internal investment as well as M&A opportunities). The investment opportunities and alternatives at the level of individual businesses and entities would serve as building blocks for portfolio-level strategic alternatives. The portfolio-level strategic alternatives may be developed to address specific corporate objectives or be based on strategy themes or combinations thereof.

For instance, in the case of a multinational in metals manufacturing, some of the strategic alternatives under consideration entailed investments for decarbonizing the manufacturing processes in various plants and strategic acquisitions of target companies with product lines that would benefit from the energy transition. Another case involved a global oil refining and marketing company with proprietary methods and technologies for producing sustainable fuels; the development of strategic alternatives entailed investments in various global assets to scale up the production of sustainable fuels for targeted markets.

Developing the road map and considerations for implementation

The development of the road map requires rigorous evaluation of the investment opportunities across the main categories mentioned above, both as stand-alone opportunities and in the context of a cohesive portfolio strategic alternative. In addition to the various financial metrics for evaluating the investments and portfolio alternatives, special consideration should be given to metrics related to the residual emissions and to portfolio balancing across time (timing of investments), geographies and markets, exposure to regulatory risks, technologies and technical risks, and novelty versus maturity of business models.

As may become clearer with time, residual emissions will often be the gating constraint. So maximizing the economic value added per unit of residual emissions (i.e., dollar of economic value added (EVA) per metric ton of CO₂ equivalent emission), in addition to other metrics, would be useful to construct the portfolio strategy and guide the optimization of the road map. As part of a net zero strategy, the residual emissions would need to be offset using GGR certificates. In view of the uncertainty of the price and availability of GGRs in the future, keeping an eye on residual emissions and maximizing the value added per unit of residual emission would help increase the robustness of the portfolio strategy.

During implementation, and on a periodic basis, corporate leaders would need to manage “carbon budgets” and “residual emissions allocations” by business unit just as capital allocations are managed to ensure an optimized approach in driving the reduction in the carbon intensity of business units and reducing the overall residual emissions. It is envisioned that, similar to the

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rigor currently applied to capital allocation and capital program management, corporate leaders will need to exercise a level of rigor and a methodical approach in the allocation of carbon budgets or quotas for residual emissions.

Conclusion

The accelerating timelines to achieve net zero in various economies, industry sectors and company operations present strategic challenges and opportunities to corporate decision-makers. Starting with a thorough understanding of a corporate portfolio's exposure to carbon risks helps identify the strategic

moves that will enable a company to limit the downside and to capture value creation opportunities. The focus should be on minimizing the amount of residual emissions in any portfolio and maximizing the economic value added per unit of residual emissions. This would also apply at the level of an industry or an economy positioning itself for a net zero world.

¹Article "Bank of England Tells Banks to Brace for Sky-High Carbon Price," by Jess Shackleman, Bloomberg, January 14, 2021.

²Article "BOE's Breenen Says Banks Unprepared for \$150 Carbon Price," by Jess Shackleman, Bloomberg, May 18, 2021.

About the Author



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