



PERSPECTIVES

How Carbon Management Can Benefit Your Company's Bottom Line

Our perspectives feature the viewpoints of our subject matter experts on current topics and emerging trends.

INTRODUCTION: STRATEGIC CARBON MANAGEMENT

The corporate world is experiencing significant growth in the need for carbon management services. Within the diverse field of [environmental and sustainability services](#), the [top sustainability issue](#) that companies are looking to address is how to reach net-zero carbon emissions by 2050. Carbon management involves the measurement, reporting, and reduction of greenhouse gas (GHG) emissions which is vital for any company with a net-zero ambition. The prioritization of net-zero and carbon management is driven by a mix of regulatory, investor, and market drivers.

On the regulatory front, most nations have committed to net-zero by 2050 to uphold the goals of the [Paris Climate Agreement](#) and ensure that global warming does not exceed two degrees Celsius. More than 190 countries have adopted the Paris Agreement, and [14 countries](#) have already enshrined this commitment into law. Another [30 countries](#) have committed to net-zero GHG emissions in policy. The remaining nations have either made declarations in support of net-zero or have had discussions on legislating net-zero targets. Translating carbon reduction targets at a national level into tangible reductions across the economy creates costs for industry. Industrial regulation to reduce GHG emissions can be implemented in the form of mandates or market-based carbon pricing regulation. The former compels emissions abatement; the latter incentivizes emission abatement so companies can avoid paying higher taxes. In either case, carbon abatement presents additional capital and operating costs for organizations, and increased cost presents risk for organizations.

Investors are also pushing organizations toward decarbonization even where there is not a regulatory drive. This investor pressure is driving companies to implement carbon measurement, monitoring, and reporting programs while simultaneously implementing emissions abatement projects. According to [McKinsey's special report](#) on the net-zero transition, measurement of GHG emissions and climate finance are two key enabling skills that will increasingly be needed as the net-zero

transition progresses. Investors are also pushing for standardized disclosure of carbon emissions and climate risk. While mostly voluntary today, it is expected that [carbon-related financial disclosure frameworks](#) will become mandatory in the near future. Many countries and regions are already developing [mandatory reporting frameworks](#) that will give investors a clearer picture of a company's climate risk exposure. The [Task Force on Climate-related Financial Disclosures](#) (TCFD) recommendations, for example, has been endorsed by over 1,000 organizations worldwide, including regulators, investors, and companies.

The transition to net-zero by 2050 is also challenging traditional market drivers for goods and services. This is creating opportunities for companies to pursue new lines of business that are set to grow in a net-zero world. Almost a quarter of the world's largest publicly traded companies have committed to net-zero GHG emissions according to a [report](#) by the Energy and Climate Intelligence Unit. With this comes the acknowledgement that carbon intensive products and production process need to be phased out over time. However, this new business reality also creates a financial opportunity that is so massive that a whole new sector of [carbon technology start-ups](#) is being created. Further, the US government's [Inflation Reduction Act](#) (IRA) will inject \$800 billion into the commercialization of decarbonization solutions, creating significant tail winds and new sources of revenue for low carbon products. Considering this capital influx, new companies are emerging across themes: energy, climate adaptation, green fintech, carbon accounting and offsets, and fundamental scientific research.

With government, investor, and market forces firmly behind the net-zero trend, carbon management is becoming increasingly important to companies' bottom-line profit. As organizations execute their current budget and planning cycle, carbon management should be central to strategic capital allocation. Those that act now to mitigate risk and capitalize on low carbon opportunities can position themselves for long-term success.

RESPONSIBILITIES OF A CARBON MANAGEMENT PROFESSIONAL

Foundation of Carbon Management: Measurement and Reporting

Some areas of carbon management are already integrated into large and energy intensive companies. One such mature area of carbon management is the measurement, monitoring, and reporting of carbon dioxide and other GHGs. GHG quantification can be categorized into [two main methods](#): 1) direct measurement and 2) analysis of fuel inputs. There is a range of tools and techniques that can be used for each of the two methods that we will not detail here but suffice it to say that the methodologies that guide GHG quantification can be complex. Quantification documents published by regulators are often hundreds of pages long. It can take years to become fluent in GHG quantification methodologies and understand the nuanced differences from one jurisdiction to the next. Once GHGs are measured and reported, companies will shift their focus to verification and assurance. Measurement and reporting are the foundation of carbon management, so it is no surprise that many companies start their decarbonization journey here. In addition to direct emissions reporting, some companies may want to differentiate their products by carrying out a lifecycle GHG emissions analysis. Such an analysis, which demonstrates a product's low-carbon credentials, has the potential to yield premium pricing opportunities.

Advocating for Effective Carbon Regulation

While measurement and reporting are generally focused on complying with existing regulations, policy analysis and advocacy is a field that seeks to shape future regulations. This involves understanding the range of potential carbon-related policies, assessing the impact to business operations, and developing reasonable positions to help guide better government decision-making. Policy advocacy can take place directly with government and through industry associations where companies with similar

business interests work collectively. Companies need to develop expertise in carbon pricing systems, technology standards, low-carbon fuel programs, and climate-related disclosures filed with securities regulators. They also need to have a solid understanding of the business environment and competitive drivers. Depending on the nature of a company's operations, policy monitoring and advocacy may take place with a single regional government or multiple levels of government from jurisdictions all over the world.

Carbon management professionals can help firms with tracking low-carbon funding programs offered by the government in addition to advocating for new programs. These programs can include grants, loans, and tax credits. As companies look to decarbonize their operations, governments have shown a willingness to provide [public funding programs](#) to help deploy low-carbon innovations and emissions reduction technologies. Often, governments are motivated to provide funding to help mute the risk of [competitiveness-driven carbon leakage](#) for emissions-intensive and trade-exposed industry. Once programs are introduced, companies need to shift their focus from external advocacy to internal communication to help ensure that project teams are factoring government funding into project-level economics.

Key Areas of Carbon Integration

Integration is a general and encompassing term that refers to three carbon-related topics: strategy, investments, and targets. These focal areas are key to assessing a company's [climate-related financial](#) risk. While these are discrete topics, they are interdependent. This necessitates multi-disciplinary work across the strategy, investment, and target-setting processes.

Carbon Risk Evaluation and Planning

If a company is serious about reducing GHG emissions, carbon management needs to be considered at the strategy table. The [strategy process](#) for any organization involves assessing strengths, weaknesses, opportunities, and threats. Carbon-related risks are often identified as a key threat and drive risk management activities. These activities often become embedded in company strategy. Carbon management professionals can bring insight on how to best track standards and benchmark best practices

related to low-carbon policy scenario analysis and carbon-related financial risk.

Risk evaluation often employs the use of scenario analysis. The goal of scenario analysis, as it relates to carbon risk, is to assess financial performance and strengths in a world that transitions to net-zero. Different scenarios may represent different pathways and timescales to meet the net-zero objective. Scenarios will have differences with respect to carbon regulations, energy costs, and consumer behavior. Managers may choose to use already-developed, third-party, low-carbon scenarios, such as those developed by the [International Energy Agency's World Energy Outlook](#). Alternatively, managers may choose to develop their own low-carbon scenarios that detail impacts to their specific business exposures.

In addition to risk identification and scenario analysis, carbon management professionals provide guidance on the inclusion of carbon-related considerations to inform company strategy and business plans. They also support awareness across the company of carbon-related issues and their impact on business goals. This could include, for example, the identification of new products or services that reduce company exposure to carbon risk and working with project teams to bring this new line of business to the market.

Carbon-Informed Capital Allocation

Strategy development is different than strategy execution. Strategy execution involves dedicated resources and capital to bring a plan to realization. One of the important ways that carbon management professionals can operationalize low-carbon considerations into business is through the capital allocation process. This includes setting guidance around carbon pricing and regulation for project managers to follow with developing project evaluations or business proposals. This guidance should be consistent for projects that are risks (and have carbon tax or regulatory exposure) and projects that are opportunities (and generate low-carbon credits, offsets, or premium-pricing related to its low-carbon nature). This type of guidance can also be provided to corporate development teams to inform merger, acquisition, and divestiture considerations. Businesses looking to avoid running blind to carbon risk would be wise to require a carbon-risk functional review for all projects seeking approval through the capital allocation process.

Greenhouse Targets

Target setting for carbon emissions is often requested by [sustainability-focused shareholders](#). As a result, [many companies](#) have set GHG emissions reduction targets for their operations. Target setting is not just something to appease shareholders, it is also an important risk management tool. Carbon management professionals can help their organizations benchmark the ambition of their targets against those set by peers. They can also help to develop action plans, monitor progress, and provide regular reporting to management and the board of directors. In addition to requesting company GHG reduction targets, shareholders are also requesting that those targets be tied to [management compensation](#). Carbon management professionals can help here, too, by developing key performance indicators that track year-over-year progress toward multi-year carbon goals.

Climate Related Financial Disclosures and Communications

A key priority as it relates to carbon management is disclosure and communication related to governance, strategy, metrics, and targets. This includes disclosures to sustainability rating organizations as well as to investors. This can be in a general stakeholder context, or specifically with investors. When it comes to investor relations, companies need to be prepared and able to address investor requests and queries on climate-related [environmental, social & governance \(ESG\) issues](#). Other climate related ESG communications with credit rating agencies, debtholders, and insurers are vital for continued access to capital. Companies need to foster internal collaboration with stakeholders to develop positions on carbon disclosure and strategies related to carbon finance. For example, does a green bond issuance make economic sense for a given project? Carbon management experts can help internal finance functions to navigate green bond eligibility and performance reporting requirements.

Carbon management is also integral to supporting ESG and climate related financial disclosures. This includes the development of a company's annual ESG or sustainability report and ensuring it aligns with external reporting standards including the recommendations of the Financial Stability Board's TCFD, the Sustainability Accounting Standards Board (SASB), the Global Reporting Initiative

(GRI) standard, and the United Nations Sustainable Development Goals (SDGs). There is also work in reporting to, and validating information provided by, select ESG rating agencies and other organizations including: Climate Disclosure Project (CDP), the S&P SAM Corporate Sustainability Assessment (CSA), Sustainalytics, MSCI, Vigeo-Eiris (VE), ISS, FTSE4Good, Corporate Knights, Bloomberg, and Refinitiv.

Innovative Carbon Trading Strategies and Optimization

Finally, carbon management can encompass carbon trading and optimization in regulatory or compliance carbon markets. Regulatory carbon optimization activities are typically carried out where the company has regulatory exposure. More speculative carbon trading can also occur in regulatory carbon markets where the company does not have compliance exposure. Carbon management professionals can help to uncover profitable trading strategies given their insight into government policy which ultimately sets market supply and demand.

Carbon management professionals can also leverage voluntary carbon markets to help organizations meet their emissions reduction goals at low cost. Core competencies here include sourcing, project diligence, contracting, and coordinating delivery. Credits in the voluntary market may, one day, be eligible for compliance purposes. These pre-compliance trading opportunities can be particularly lucrative, especially in opaque and illiquid markets. Active participation in these markets can also give the organization better insight into carbon market supply and demand fundamentals to support the economic analysis of commercial opportunities that may generate offset credits.

ENHANCE SUSTAINABILITY: HOW TO INTEGRATE CARBON MARKET MANAGEMENT

Regardless of where you are on your journey, carbon risk management starts with accurate and timely data. This is the starting point for developing insights into the carbon

profile of your business and developing a plan for mitigating your operational footprint. The good news is that there are a variety of tools at your disposal that can help you to quantify, measure, and assess your climate-related risk.

Independent carbon management professionals can help your organization with carbon measurement and reporting, policy analysis, GHG management (including developing strategy, investment criteria, and targets), disclosure, and carbon market activities. Effective risk mitigation can be a strategic differentiator for your business. With investors, stakeholders, and financial regulators increasingly looking at carbon emissions data, environmental and sustainability professionals have never been more important.

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MORE ABOUT J.S. HELD'S CONTRIBUTOR

[Andrea Korney](#) is Vice President of Sustainability for J.S. Held's [ESG & EHS Digital Solutions](#) group. Throughout her career, Andrea has demonstrated her passion for inclusive stakeholder relations in the mining and energy sectors, focusing on reducing barriers and creating opportunities for diverse employees, business owners, and industry partners through policy and regulation influence, workforce development, and sustainability outreach. Andrea's 25+ years of experience in energy and metals extraction includes longstanding roles in oil & gas, power generation, and mining across North America and Russia. Her focus in these roles has included HR, corporate services, global supply chain and logistics, stakeholder relations, Native American relations, and government affairs.

Andrea can be reached at andrea.korney@jsheld.com or +1 725 567 0668.

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