Governments, businesses and investors around the world are increasingly focusing on the financial impacts of climate change. Businesses may face new regulatory requirements and rising stakeholder concerns, as well as risks related to price and availability of commodities. There may be opportunities for new revenue generation from low-carbon products, renewable energy and additional services. There could also be opportunities for reductions in costs and resource dependency.

Embedding a sustainable approach into core business activities is a complex transformation that may create long-term shareholder value and unlock a range of new, emerging sources of green financial capital such as green bonds.

The UN’s Conference of the Parties (COP) Paris Agreement, signed in December 2015, limiting climate change to less than 2°C, suggests that governments around the world are starting to play their part in transitioning to a low carbon world. At the same time, implementation of unsubsidized low-carbon technologies is becoming cost competitive compared to more traditional technologies.

These dual forces are acting as both a stick (increased regulatory and market risks in particular high-impact sectors) and a carrot (decreased risk profiles or superior returns in companies with exposure to low-carbon technologies) for investors in the global economy.

Whether an investor or an asset manager, businesses should develop and execute strategies that consider a 2°C world, as the risks of diversifying portfolios into emerging technologies is likely outweighed by the risks of not responding to these signals and continuing to invest in companies operating in business-as-usual mode.

Specific steps you and your investors can take now include:

- Understanding your emissions profile and climate risks over the entire value chain
- Building a comprehensive climate strategy or ensuring that climate is strongly embedded in your business’ strategy
- Taking advantage of climate finance opportunities, such as green bonds
Key considerations for companies and their investors

Following the Paris Agreement, businesses should begin to develop and implement their 2°C strategy by clearly understanding their exposure to climate-related risks, identifying leading practices for adapting to new carbon regulations, meeting investors’ expectations on climate disclosures and taking advantage of low-carbon market opportunities.

Prior to beginning your climate change strategy assessment, you should evaluate your climate maturity by answering the following questions:

• Where are the largest emissions sources (past and forecasted) in the asset portfolio or value chain?
• How does your greenhouse gas (GHG) emissions profile compare with peers?
• What is the potential exposure to new regulations (carbon taxation or carbon pricing) based on national climate targets or international commitments? What assets are at risk (supply chain, products, activities, etc.) and in which geographies?
• Where will new growth opportunities emerge for your business with the 2°C target set by the Paris Agreement? What competitive advantage can be leveraged to capture these opportunities?
• What new green financing mechanisms can be adopted to get access to emerging sources of capital to fund the 2°C strategies?
• Are actions prioritized by region or sector in the form of a 2°C road map or equivalent?
• Are the proper governance mechanisms and instruments in place (i.e., internal carbon price) to help guide investment decisions and decision-making in general?
• Have appropriate metrics been defined to monitor performance and report on progress?
• Have impacts on assets from the expected physical changes caused by climate change been addressed?

How EY can help

Our global, multidisciplinary teams can provide a balance of skills to offer tailored services supported by global methodologies to address your specific business issues. In particular:

• We can assist policymakers (governments and international organizations) in defining and implementing energy and climate policies
• We can help businesses in establishing GHG inventories across the value chain and for investors and debt providers over their portfolios
• We can help model the physical and transition impacts of different climate scenarios, including 2°C scenarios, on businesses
• We can assist investors and corporates in defining energy and climate strategies and in evaluating the rationale and profitability of investment decisions
• We can support issuers and investors in issuing green bonds and other alternative financing mechanisms to unlock climate finance sources

Our approach

Responding to market and regulatory drivers of climate change is complex and requires differing responses dependent on the sector and asset class. Our approach to portfolio emissions, climate change scenario risk analysis and green bond services are outlined in the table that follows.

Our portfolio of GHG emissions analysis services provides you with an assessment of their contribution to climate change per dollar of investment, revenue or per unit of output. This allows direct comparisons between sectors and across portfolios.
Our climate change scenario risk analysis services can be tailored to meet the requirements of the Task Force on Climate-Related Financial Disclosures (TCFD) Recommendations, which require organizations to model the transition and physical impacts of at least one 2°C scenario. The results of these risk assessments are designed to meet your requirements and can be qualitative or quantitative in nature.

Our green bond services provide both assurance and advisory options depending whether you are looking to fund green projects or launch green debt products.

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**Portfolio GHG emission analysis**

1. GHG emission data collection per listed or unlisted investment or asset
2. Intensity analysis based on:
   - Investment
   - Revenue or earnings
   - Sectoral output (throughput)
3. Benchmarking analysis
   - Intensity versus peers

**Climate change scenario risk analysis**

1. Climate scenario development:
   - Develop climate scenarios meaningful to the organization based on publicly available data or organizational-specific data
2. Model financial transition impacts:
   - Sectoral models at regional level (e.g., computational general equilibrium models)
   - Organization-specific supply chain model to assess exposure to demand and production changes
3. Model physical impact of scenarios:
   - Define relevant climate variables (e.g., rainfall and storms)
   - Use physical climate models to assess change in frequency and intensity of each variable in asset locations
   - Analyze costs in terms of business continuity, insurance and capital expenditure

**Green bond services**

1. Verification of green bonds against Green Bond Principles or Climate Bonds Standard
2. Development of green bond investment programs and products
   - Defining use of proceeds
   - Developing green bond frameworks
   - Improving green bond’s accounting and tax structures

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Certain services and tools may be restricted for EY audit clients and their affiliates to comply with applicable independence standards. Please ask your EY contact for further information.
Our teams can assist you to prepare for a 2°C world by helping you to:

- Understand the emissions profile and climate risks over your entire value chain, in particular, building forward-looking scenario models to help you to get a full vision of the exposure to changing regulation and technology costs. Developing metrics that align with key climate risks, beyond operational emissions, can provide a baseline and allow you to monitor their risk exposure over time.
- Build a broad climate strategy or embedding climate issues in the corporate strategy to help to take climate-related risks and opportunities into account. Considering implementing a corporate-wide climate approach can be key to reducing the exposure to climate risk, by prioritizing emission reduction actions, screening opportunities of greater energy efficiency, developing adaptation plans or investing in innovative low-carbon technologies.
- Take advantage of climate finance opportunities, such as green bonds, in order to improve access to capital or to reduce the cost of capital for new investments. Reporting on progress in meeting long term climate targets can contribute to attracting new investors from the climate finance space. The credibility of these targets in the long run will likely depend on the transparency of the information disclosed.

Why EY?

Our global, multidisciplinary teams bring our experience in assurance, tax, transactions and advisory services with climate change and sustainability knowledge across industries together. We have experience working on climate and energy issues with governments, businesses and investors.

Our teams’ broad range of skills such as data analytics and project financing combined with sector-specific experience means that we can tailor our services to your requirements to help you address the climate change challenges facing your business.

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