

LOW CARBON TRANSITION RATINGS

ALIGN YOUR PORTFOLIO TO A NET-ZERO PATHWAY

Morningstar Sustainalytics' Low Carbon Transition Ratings provide investors with a top-level implied temperature rise and value-at-risk, assessing companies' current alignment to a net-zero pathway. The ratings are supported by robust research and a transparent dataset, including annual expected emissions trajectories for different climate change scenarios.

Mandatory climate-related financial disclosure is becoming a universal reality, with more governments around the world adopting the recommendations of the Task Force on Climate-related Disclosures (TCFD) and the International Sustainability Standards Board. In parallel, more companies are setting targets and developing strategies to do their part in

meeting the global objective of minimizing global warming to 1.5°C by 2050. Climate transition plans and GHG emissions disclosures are challenging for investors to understand and compare across industries and geographies. Investors acknowledge that to meaningfully assess transition risks, it is important to look beyond stated commitments to evaluate the actions companies are taking to manage climate risks and opportunities.

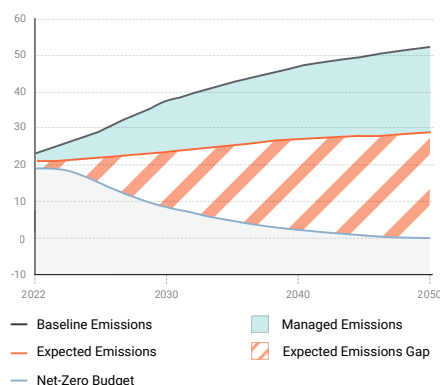
Leveraging our Low Carbon Transition Ratings, investors can respond to regulatory initiatives, implement net-zero strategies, fulfill client net-zero mandates, conduct scenario analysis, and obtain transparency into company actions by integrating climate research into their investment decision-making processes.

Overview of Sustainalytics' Low Carbon Transition Ratings

Our comprehensive framework measures the degree to which a company's projected greenhouse gas (GHG) emissions differ from a net-zero pathway between now and the year 2050. The ratings leverage a two-dimensional framework that measures an issuer's exposure from their expected emissions, while also accounting for management actions. They assess the company's progress toward their stated net-zero commitments by evaluating the quality and ambition of their GHG reduction targets, as well as any demonstrated short-term investment plans, policies and programs such as Climate Transition Resilience Program, Product Decarbonization Strategy and a GHG Emissions Reduction Policy-Supply Chain.

The ratings also provide a Climate Transition Value-at-Risk signal that demonstrates the potential loss in value that a company may experience from a transition to a low carbon economy, calculated for different decarbonization pathways.

Absolute amount of CO₂ (Mt)



Key Benefits



Holistic Integration of Management Preparedness

With more than 85 general and subindustry-specific management indicators – weighted by a company's distribution of GHG emissions across Scopes 1, 2, 3 upstream, and 3 downstream – investors gain transparency into the credibility of company's transition plans and management preparedness and can integrate granular climate insights into their company assessments and valuation models.



Assess an Issuer's Transition Value at Risk

Value at Risk (VaR) is a financial metric that demonstrates the expected future impact on a company's bottom line due to the transition to a low carbon economy. VaR is measured based on the policy costs of expected emissions and the impact of reduced market demand, where applicable. It is a cumulative value based on a discounted cash flow model for the years from now until 2050 that allows users to complete regulatory reporting, stress testing, scenario analysis, and portfolio optimization.



Dedicated Module to Assess Issuer Reporting with TCFD

A TCFD module is included in the rating to assess and track the completeness of issuer reporting and translate our assessment of issuers' managerial preparedness across the four thematic areas recommended by the TCFD (governance, strategy, risk management, and metrics and targets).



Analyze Expected Issuer Emissions Against Various Net-Zero Climate Scenarios

Our Low Carbon Transition Ratings are driven by a bottom-up scenario analysis, evaluating companies' emission trajectories against expected regional policy and technology pathways required to meet the Paris Agreement and net-zero ambitions by the year 2050. This currently includes orderly scenarios like the UN PRI IPR Required Policy Scenario (RPS), and IEA Net Zero 2050 Scenario (NZE), a disorderly scenario with the IPR Forecast Policy Scenario (FPS), and a hot-house scenario with IEA Stated Policies Scenario (STEPS).



Access to our Transparent Methodology and Granular Data

A transparent methodology, multiple levels of data and clear indicator guidance underpin our ratings. This allows for validation and customization of the weighted data points to generate unique insights that align to investors' objectives.



8,000+ Companies Covered

Sustainalytics' Low Carbon Transition Ratings span more than 8,000 companies and encompass most major global indices. Future expansion of the company database will align with the coverage of our ESG Risk ratings (12,000+).

Use Cases



Climate Research Integration

- Measure alignment of companies against a 1.5°C scenario
- Deepen insights into transition risk and opportunities for portfolio management
- Conduct scenario analysis – compare value at risk for different decarbonization pathways



Screening and Benchmarking

- Set decarbonization targets and monitor performance
- Screen investable universe based on company exposure to and/or management of transition risks
- Conduct credibility assessments of company transition plans and assess SBTi Readiness and/or management of transition risks



Implement Net-Zero Strategies

- Assess forward-looking carbon emissions of companies, portfolios, funds and benchmarks with net-zero pathways
- Meet commitments of global alliances and member groups such as the Net-Zero Asset Manager Initiative and the Institutional Investors Group on Climate Change (IIGCC)



Reporting and Client Communication

- Support TCFD-aligned regulatory reporting
- Report to clients on how portfolios are aligned with global climate goals
- Respond to client net-zero mandates



Thematic Investing

- Create climate-aware investment products



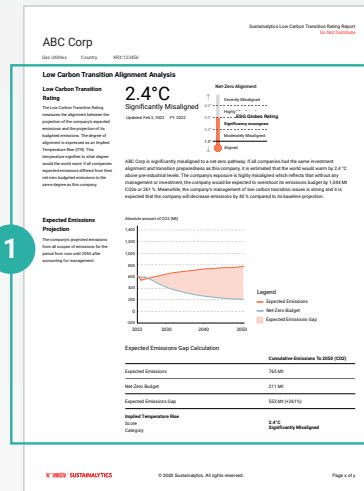
Engagement and Voting

- Evaluate company management of transition risks and opportunities
- Obtain transparency on corporate's disclosure sufficiency to current TCFD recommendations

Low Carbon Transition Ratings Output

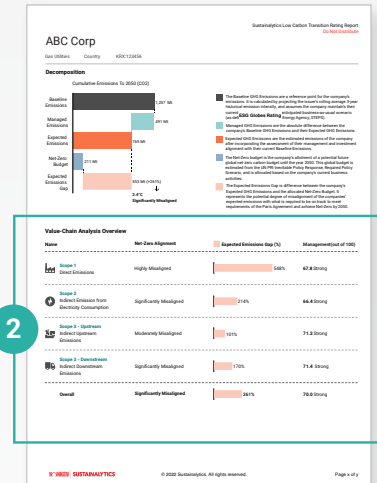
1. Company rating

A company's top-level rating is expressed as an Implied Temperature Rise signifying the expected level of global warming if the global economy had the same proportion of emissions misaligned to the net-zero budget. The absolute emissions gap across each scope of the company's business activity are summarized through time series graphs, with the underlying components of the assessment illustrated in decomposition charts.



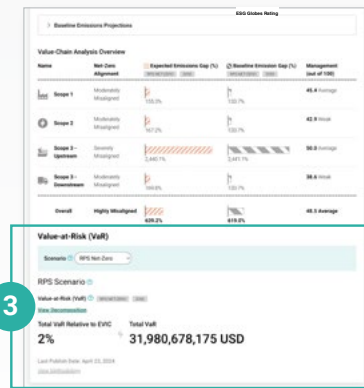
2. Value Chain Analysis

The degree of overall alignment to the net-zero budget is summarized for each scope of emissions across an issuer's value-chain, providing transparency into how much each scope of emissions is contributing to the overall rating. A separate value-chain analysis for each of the exposure and management components is also provided.



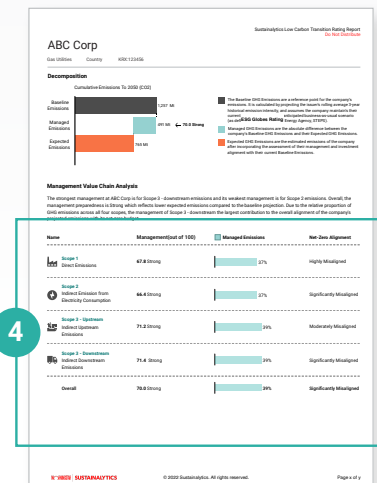
3. Assessment of Issuer Transition Value at Risk

Low Carbon Transition Value at Risk (VaR) informs investors about potential future losses their portfolio companies may face due to their exposure and management of the transition to a low carbon economy. By taking into account the policy costs of expected emissions, and the impact of reduced market demand for fossil fuels, VaR enables investors to respond to regulatory requirements, perform stress testing, and optimize their portfolio for transition scenarios.



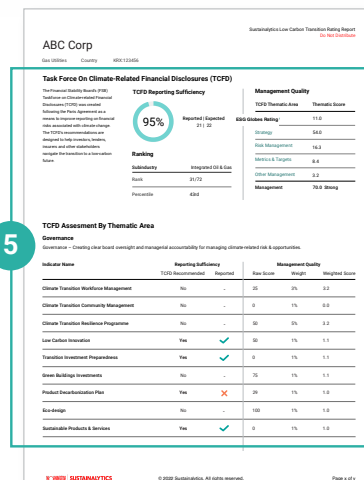
4. Management Score and Analysis

An overall management score out of 100 is provided, as well as an analysis identifying where action may be needed across the issuer's business activities. This is communicated through a breakdown of their management scores and contribution of key management indicators for each scope of emissions across the issuer's value chain.



5. Assessment of issuer TCFD reporting

An overall score of the comprehensiveness of issuers' climate related disclosures, and a detailed analysis across the key TCFD thematic areas of governance, strategy, risk management and metrics & targets provides transparency into quality of their management.



How To Access Low Carbon Transition Data

We have various delivery options to fit your firm's workflow needs.



Global Access Clients

can access our Low Carbon Transition Ratings through Morningstar Sustainalytics' user-friendly interface with screening and reporting tools.



Data Services Access

to integrate the Low Carbon Transition Ratings through an internal system of your choice through our FTP or API services.



Morningstar Systems:

Availability in Morningstar Direct, MPS and Data Feeds is coming soon.



Third Party Systems:

Low Carbon Transition Ratings will be made available for several third-party distribution platforms in the future.

Related Products:

Physical Climate Risk Metrics

Forward-looking scenario analysis on direct physical climate risks.

Carbon Emissions Data

Powerful insights to assess and analyze companies' GHG emissions.

EU Sustainable Finance Action Plan

Solutions for Sustainable Finance Disclosure Regulation and EU Taxonomy

Stewardship Services

Engagement Services and ESG Voting Policy Overlay

Learn More About Morningstar Sustainalytics

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