
Morningstar® Low Carbon Designation™ Methodology

Morningstar Sustainalytics Methodology & Product Architecture

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Executive Summary

- ▶ The Low Carbon Designation™ is an indicator that the companies held in a portfolio are in general alignment with the transition to a low-carbon economy.
- ▶ The Low Carbon Designation is assigned to funds that have low carbon risk scores and low levels of fossil fuel involvement.
- ▶ The Low Carbon Designation is assigned to funds with a Historical Carbon Risk Score below 10 and a Historical Fossil Fuel Percentage of Covered Portfolio Involved of less than 7%.
- ▶ The Historical Carbon Risk Score measures the degree of material financial risk within a portfolio, calculated based on the underlying companies' exposure to and management of material carbon issues, averaged over the trailing 12 months.
- ▶ The Historical Fossil Fuel Percentage of Covered Portfolio Involved measures the percentage of the covered portfolio that is exposed to corporations that generate any revenue from involvement in fossil fuels, averaged over the trailing 12 months.

Introduction

Climate-related risks have the potential to disrupt future business prospects, particularly for carbon-intensive industries and products. This risk is amplified by the introduction of legislation, regulatory initiatives, and global agreements to mitigate greenhouse gas emissions, with an enhanced focus on decarbonization efforts and commitment to climate action further supported by investor and consumer awareness. The **Low Carbon Designation** is designed to support investors in identifying low-carbon funds—that is, funds that have a low degree of unmanaged carbon risk and low exposure to companies involved in fossil fuels—demonstrating alignment with the transition to a low-carbon economy.

Inputs

The **Portfolio Carbon Risk Score** is designed to support investors in evaluating the degree of material financial risk within portfolios, measured based on the underlying companies' exposure to and management of material carbon issues. The Portfolio Carbon Risk Score is calculated as the asset-weighted average of company **Carbon Risk Scores** for the portfolio's covered, corporate holdings, where a company's Carbon Risk Score measures the degree to which a company's enterprise value is at risk driven by factors related to society's transition to a low carbon economy—or more technically speaking, the magnitude of a company's unmanaged carbon risks.

The **Fossil Fuel Percentage of Covered Portfolio Involved** metric is designed to support investors in evaluating the extent to which portfolios are exposed to companies that generate revenue from involvement in fossil fuels. The Fossil Fuel Percentage of Covered Portfolio Involved measures a portfolio's exposure to companies involved in fossil fuels, measured as a percentage of the portfolio's covered, corporate holdings, where **Fossil Fuel Involvement** assesses the level of company involvement in conventional fossil fuels, such as thermal coal and oil and gas, as well as high-impact fossil fuels, including oil sands, oil shale, and arctic oil and gas.

The Low Carbon Designation is assigned based on the historical weighted averages of the Portfolio Carbon Risk Score and Fossil Fuel Percentage of Covered Portfolio Involved. Combining the trailing 12 months of portfolio data adds consistency while still reflecting portfolio managers' current decisions by weighting the most recent portfolio scores more heavily.

Low Carbon Designation

The Low Carbon Designation is designed to allow investors a straightforward, objective way to identify low-carbon funds across the global universe. To receive the designation, a portfolio must meet the following two criteria:

1. A **Historical Carbon Risk Score** below 10.
2. A **Historical Fossil Fuel Percentage of Covered Portfolio Involved** of less than 7%.

The Historical Carbon Risk Score is calculated as a weighted average of the trailing 12 months of Portfolio Carbon Risk Scores. Historical scores are not equal-weighted; rather, more-recent portfolios are weighted more heavily than more-distant portfolios.

[1]

$$\text{Historical Carbon Risk Score} = \frac{\sum_{i=0}^{11} (12 - i) * \text{PortfolioCarbonRiskScore}_i}{\sum_{i=0}^{11} i + 1}$$

Where

<i>Historical Carbon Risk Score</i>	=	The historical-weighted average of the trailing 12 months of Portfolio Carbon Risk Scores.
<i>i</i>	=	The number of months from present.
<i>PortfolioCarbonRiskScore_i</i>	=	The Portfolio Carbon Risk Score as of <i>i</i> months from present.
<i>i = 0, 11</i>	=	The trailing 12 months, beginning with the present month (<i>i=0</i>).

The Historical Fossil Fuel Percentage of Covered Portfolio Involved measures the percentage of the covered portfolio that is exposed to corporations that generate any revenue from involvement in fossil fuels, averaged over the trailing 12 months.

[2]

$$\text{Historical Fossil Fuel Involvement} = \frac{\sum_{i=0}^{11} (12 - i) * \text{CoveredPortfolioInvolved}_{R_i}}{\sum_{i=0}^{11} i + 1}$$

Where

<i>Historical Fossil Fuel Involvement</i>	=	The historical-weighted average of the trailing 12 months of Fossil Fuel Percentage of the Covered Portfolio Involved.
<i>i</i>	=	The number of months from present.
<i>CoveredPortfolioInvolved_{R_i}</i>	=	The Portfolio Fossil Fuel Involvement as of <i>i</i> months from the present, calculated as the Percentage of the Covered Portfolio Involved
<i>i = 0, 11</i>	=	The trailing 12 months, beginning with the present month (<i>i=0</i>).

For a fund to receive a Historical Carbon Risk Score and the Historical Fossil Fuel Percentage of Covered Portfolio Involved as-of a given date, the **Carbon Risk Percentage of Eligible Portfolio Covered** and **Fossil Fuel Percentage of Eligible Portfolio Covered** must meet or exceed 67%, respectively. When calculating the historical weighted average, only portfolio risk scores and involvement values for which the corresponding month's Percentage of Eligible Portfolio Covered meets or exceeds 67% will be included.

Frequency of Calculations

The Low Carbon Designation will be issued monthly, one month and six business days after the reported as-of date for the company carbon risk and fossil fuel involvement data from Sustainalytics. The Low Carbon Designation is issued as part of the same monthly cadence as the portfolio carbon risk metrics and portfolio fossil fuel and carbon solutions involvement metrics, calculated one month and six business days after their reported as-of date using the most recent portfolio. If an updated portfolio with the same as-of date as the company data has not been received by the calculation date, the most recent portfolio available will be used, provided the portfolio is less than 276 days old. ■■

References

[Portfolio Carbon Risk Metrics Methodology \(2023\)](#), Morningstar Sustainalytics

[Portfolio Fossil Fuel and Carbon Solutions Involvement Methodology \(2023\)](#), Morningstar Sustainalytics

Methodology History

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Appendix

Glossary

Term	Description
Carbon Date	The effective date of the Low Carbon Designation.
Carbon Risk Score	Refers to a company's overall score in the Carbon Risk Ratings that measures the extent to which enterprise value is at risk driven by carbon factors. The Carbon Risk Score is measured on an open-ended scale starting at zero (no risk) and a maximum score that is typically below 100.
Carbon Risk Percentage of Eligible Portfolio Covered	The proportion of the eligible portion of the portfolio for which the underlying company Carbon Risk Score is available.
Fossil Fuel Involvement	Refers to the level of company involvement in high-impact and conventional fossil fuels, represented as a revenue range. A company's Fossil Fuel Involvement is derived based on the following underlying involvement areas: thermal coal extraction, thermal coal power generation, oil & gas production, oil sands extraction, Arctic oil & gas exploration, shale energy extraction, oil & gas power generation, and oil & gas products and services.
Fossil Fuel Percentage of Covered Portfolio Involved	The percentage of the covered portion of the portfolio that is exposed to corporations that generate any revenue (>0%) from involvement in fossil fuels. A lower percentage is optimal.
Fossil Fuel Percentage of Eligible Portfolio Covered	The proportion of the eligible portion of the portfolio for which the underlying company Fossil Fuel Involvement data is available.
Historical Carbon Risk Score	The historical-weighted average of the trailing 12 months of Portfolio Carbon Risk Scores. Historical portfolio scores are not equal-weighted; rather, more-recent portfolios are weighted more heavily than older portfolios. Combining the trailing 12 months of portfolio scores adds consistency while still reflecting portfolio managers' current decisions by weighting the most recent portfolio scores more heavily.
Historical Fossil Fuel Percentage of Covered Portfolio Involved	The historical-weighted average of the trailing 12 months of Fossil Fuel Percentage of Covered Portfolio Involved. Historical portfolio values are not equal-weighted; rather, more-recent portfolios are weighted more heavily than older portfolios. Combining the trailing 12 months of portfolio involvement adds consistency while still reflecting portfolio managers' current decisions by weighting the most recent portfolio involvement more heavily.

Low Carbon Designation	An indication whether the companies held in the portfolio are in general alignment with the transition to a low-carbon economy. To receive the Low Carbon Designation, the fund must have a Historical Carbon Risk Score below 10 and a Historical Fossil Fuel Percentage of Covered Portfolio Involved of less than 7%.
Portfolio Carbon Risk Score	The asset-weighted average of company Carbon Risk Scores for the portfolio's covered, corporate holdings. The Carbon Risk Score indicates the overall material risk a company faces from the transition to a low-carbon economy. A lower score is better.

Frequently Asked Questions

What vehicles will be eligible to receive the Low Carbon Designation?

The Low Carbon Designation is designed to allow investors a straightforward, objective way to identify low-carbon funds across the global universe. As such, all investment types are eligible to receive the Low Carbon Designation regardless of where they are domiciled or sold.

What is the Carbon Date, and how does it differ from a fund's portfolio date?

The **Carbon Date** represents the effective date of the Low Carbon Designation and is intended to provide a standard effective date for comparison across portfolios. It is the date in which the most recent portfolio and company data are used to derive the Low Carbon Designation. The Low Carbon Designation is issued on the same monthly cadence as the portfolio carbon risk metrics and portfolio fossil fuel and carbon solutions involvement metrics and issued as-of the same Carbon Date. To accommodate different portfolio reporting frequencies, the Low Carbon Designation as-of a given Carbon Date will be calculated on a one-month, six-business-day lag. If an updated portfolio with the same as-of date as Carbon Date has not been received by the calculation date, the most recent portfolio available will be used, provided the portfolio is less than 276 days old.

For example, the Low Carbon Designation as-of Carbon Date Jan. 31, 2023, will be issued on the sixth business day of March. If a portfolio date as of Jan. 31, 2023, has not been received for a given fund by the sixth business day of March, the most recent portfolio will be used, provided the portfolio is less than 276 days old.

How does the effective date of the company data used relate to the Carbon Date?

The Carbon Date represents the month-end effective date of the company data that was used to derive portfolio-level metrics. This means the most recently available company data as of the Carbon Date is what is used for the calculations. For the Low Carbon Designation, this will be on a monthly basis with a one-month and six-business-days after the reported as-of date for the company carbon risk and fossil fuel involvement data from Sustainalytics

For example, the Low Carbon Designation as-of Carbon Date Jan. 31, 2023, will be issued at the same time as the portfolio carbon risk metrics and portfolio fossil fuel and carbon solutions involvement metrics, calculated using Sustainalytics company carbon risk and fossil fuel involvement data reported as-of January 2023, and would be derived one month and six business days after Jan. 31, 2023.

Is there a minimum coverage requirement for a fund to receive the Low Carbon Designation?

For a fund to receive a Low Carbon Designation as-of a given Carbon Date, the corresponding Historical Carbon Risk Score and Historical Fossil Fuel Percentage of Covered Portfolio Involved must be available as-of the same Carbon Date, both of which require a minimum of 67% of the eligible portion of the portfolio to be covered.

For a fund to receive a Historical Carbon Risk Score and the Historical Fossil Fuel Percentage of Covered Portfolio Involved as-of a given Carbon Date, the corresponding Carbon Risk Percentage of Eligible Portfolio Covered and Fossil Fuel Percentage of Eligible Portfolio Covered must meet or exceed 67%, respectively. When calculating the historical weighted average, only portfolio risk scores and involvement values for which the corresponding month's Percentage of Eligible Portfolio Covered meets or exceeds 67% will be included.

Why does my fund have a Portfolio Carbon Risk Score but not a Historical Carbon Risk Score?

If a fund has a Portfolio Carbon Risk Score but does not have a Historical Carbon Risk Score, this is most likely due to the fund not meeting the minimum 67% coverage required to generate a Historical Carbon Risk Score.

Why does my fund have a Fossil Fuel Percentage of Covered Portfolio Involved value but not a Historical Fossil Fuel Percentage of Covered Portfolio Involved value?

If a fund has a Fossil Fuel Percentage of Covered Portfolio Involved value but does not have a Historical Fossil Fuel Percentage of Covered Portfolio Involved value, this is most likely due to the fund not meeting the minimum 67% coverage required to generate a Historical Fossil Fuel Percentage of Covered Portfolio Involved value.

Why does my fund not have a Low Carbon Designation?

For a fund to receive a Low Carbon Designation as-of a given Carbon Date, the corresponding Historical Carbon Risk Score and Historical Fossil Fuel Percentage of Covered Portfolio Involved must be available as-of the same Carbon Date. If a Low Carbon Designation is not generated for a fund, this is most likely due to not receiving one or both of these metrics. This could be due to one or more of the following:

- ▶ The fund does not have portfolio data available, or the most recent portfolio data is more than 276 days old.
- ▶ The fund does not contain any holdings eligible to generate a Portfolio Carbon Risk Score and Fossil Fuel Percentage of Covered Portfolio Involved value.
- ▶ The Carbon Risk Percentage of Eligible Portfolio Covered is less than 67%.
- ▶ The Fossil Fuel Percentage of Eligible Portfolio Covered is less than 67%.