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# Construction Rules for the Morningstar® Global Renewable Energy Index<sup>SM</sup>

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## Morningstar Indexes

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## Overview

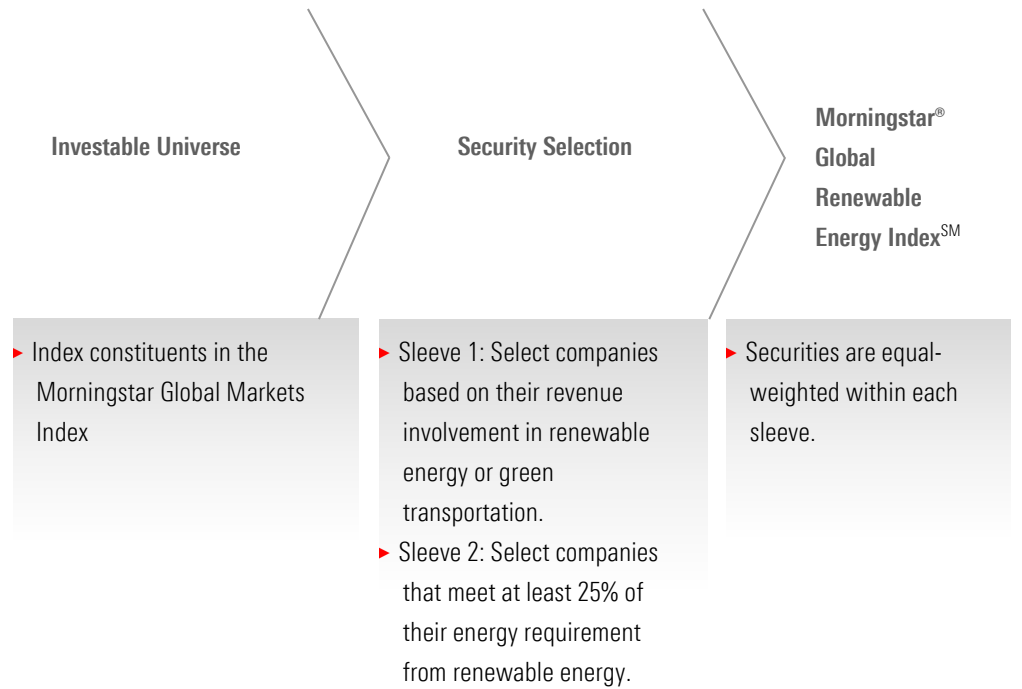
The Morningstar Global Renewable Energy Index is designed to provide exposure to companies that are leaders in the transition to a low-carbon economy. The index is a subset of the Morningstar Global Markets Index, a broad market index representing 97% of market capitalization globally.

### Index Inception Date and Performance Inception Date

The inception date of the index is October 27, 2020, and the performance inception date of the index is December 18, 2015, when the first back-tested index value was calculated.

### Index Construction

**Exhibit 1** Morningstar Global Renewable Energy Index Construction Process



For additional details, refer to the "Assigning Stocks to the Index" section.

## Assigning Stocks to the Index

### Selection Universe

At each reconstitution, securities for the index are derived from the Morningstar Global Markets Index (the benchmark). For more details on benchmark construction, please refer to the [Construction Rules for the Morningstar Global Markets Index](#).

### Security Selection

At every reconstitution, the selection universe is divided into two sleeves:

#### ► Sleeve One

This sleeve constitutes 75% of the total index weight. It includes the following companies:

- Companies that derive at least 5% of their revenues from renewable energy
- Companies that derive at least 10% of their revenues from green transportation.

Revenue involvement data is sourced from Sustainalytics. For more details, please refer to Appendix 2.

#### ► Sleeve Two

This sleeve constitutes 25% of the total index weight. It includes the following companies

- Companies that have a carbon own operations exposure less than 10 and meet at least 50% of their primary energy requirement from renewable energy
- Companies that have a carbon own operations exposure more than or equal to 10 and meet at least 25% of their primary energy requirement from renewable energy

Carbon exposure and renewable energy use are determined by Sustainalytics. Sector weights are capped at 20% within sleeve two.

### Number of Stocks

The number of stocks in a portfolio varies depending on the selection and eligibility criteria at the time of the reconstitution.

### Index Weighting

Companies in each sleeve are equal-weighted. Sleeve one constitutes 75% of the total weight, while sleeve two contributes to 25% of the index weight. If a company has multiple share classes, the most liquid share class as determined by Morningstar is selected. The weight of securities is adjusted for their liquidity, and the residual weights are distributed to the remaining securities in the portfolio. For more details, please refer to Appendix 3.

## Index Maintenance and Calculation

### Scheduled Maintenance

The index is rebalanced and reconstituted semiannually and implemented after the close of business on the third Friday of June and December and is effective the following Monday. If Monday is a holiday, they are effective on the next following business day.

The Sustainable Product Research and Carbon Exposure data used for reconstitution are the latest available as of the last trading day of May and November.

### Corporate Action

The treatment of corporate actions can be found in the Morningstar Indexes Corporate Actions Methodology rulebook.

### Index Calculation and Price Data

Details about index calculations and price data can be found in their respective rulebooks: [Morningstar Indexes Calculation Methodology](#) and [Equity Closing Prices Used for Index Calculation](#).

### Methodology Review and Index Cessation Policy

The index methodology is continually reviewed to ensure it achieves all stated objectives. These reviews take into account corporate action treatment, selection, and maintenance procedures. Subscribers to the index will be notified before any methodology changes are made. For more details, refer to the [Morningstar Index Methodology Change Process](#).

Morningstar also notifies all subscribers and stakeholders of the index that circumstances might arise that require a material change to the index, or a possible cessation of the index. Circumstances that could lead to an index cessation include, but are not limited to, market structure change, product definition change, inadequate supply of data, insufficient revenue associated with the index, insufficient number of clients using the index, and/or other external factors beyond the control of the Morningstar Index Committee.

Because the cessation of the index or benchmark index could disrupt subscriber products that reference this index, all subscribers are encouraged to have robust fallback procedures if an index is terminated. For more details, refer to the [Morningstar Index Cessation Process](#).

## **Data Correction and Precision**

### **Intraday Index Data Corrections**

Commercially reasonable efforts are made to ensure the accuracy of data used in real-time index calculations. If incorrect price or corporate action data affect index daily highs or lows, they are corrected retroactively as soon as is feasible.

### **Index-Related Data and Divisor Corrections**

Incorrect pricing and corporate action data for individual issues in the database will be corrected upon detection. In addition, an incorrect divisor of an index, if discovered within five days of its occurrence, will always be fixed retroactively on the day it is discovered to prevent an error from being carried forward. Commercially reasonable efforts are made to correct an older error subject to its significance and feasibility.

For more details, refer to the [Recalculation Guidelines](#).

### **Computational and Reporting Precision**

For reporting purposes, index values are rounded to two decimal places and divisors are rounded to appropriate decimal places.

## Appendixes

### Appendix 1: Glossary

Terms	Description
<b>Reconstitution</b>	During each reconstitution, the steps mentioned in the index construction process are performed, resulting in membership reset.
<b>Rebalance</b>	During each rebalancing, the weights are adjusted for updated free-float and shares outstanding data.

### Appendix 2: Sustainalytics Sustainable Product Research

Sustainable Product Research focuses on corporate products and services that offer solutions to environmental and social challenges, including the following:

- ▶ Products and services that, through their use, reduce the negative impact of economic activities that have social value.
- ▶ Products and services that address basic needs and that are made or delivered in a way that is more just or sustainable than prevailing industry practices.
- ▶ Products and services that provide direct environmental benefit.

The Morningstar Global Renewable Energy Index focuses on the following research areas:

- ▶ Renewable Energy
  - ▶ Renewable energy generation: Companies that own renewable energy generation facilities.
  - ▶ Renewable-energy-supporting products and services: Companies that manufacture or develop tailor-made products that contribute to the building or development of renewable energy generation facilities.
- ▶ Green Transportation
  - ▶ Green transportation vehicles: Companies that make purely electrically powered cars, buses, trucks, trams, plug-in electric hybrids.
  - ▶ Green transportation technologies and equipment: Companies that provide technologies or equipment that support the manufacturing of electric cars, buses, trucks, trams, plug-in electric hybrids.
  - ▶ Green transportation services: Companies that operate public/cargo transportation systems, focused on rail, trams, light rail, or metros/subways.

- ▶ Green transportation infrastructure: Companies that build tracks for rail, trams, light rail, charging stations/infrastructure for electric vehicles, plug-in hybrid vehicles, and related activities.

### Appendix 3: Weight Adjustment for Liquidity

Assuming a hypothetical fund of USD 250 million in assets under management for which the manager trades no more than 20% of any security's three-month average daily traded value, or ADTV, security weights are adjusted based on their liquidity such that:

$$|w_i - cw_i| \leq \frac{\text{Days to trade} * \text{ADTV}_i * \% \text{ADTV being traded in 1 day}}{\text{AUM}}$$

Where:

cw <sub>i</sub>	= current weight of the i <sup>th</sup> security in the index
ADTV <sub>i</sub>	= Average Daily Trading Value of the i <sup>th</sup> security
Days to trade	= 4
AUM	Refer Appendix 4
%ADTV being traded in one day	= 20%

For additions, the current weight in the portfolio cw<sub>i</sub> is 0. Note that if a security is deleted from the benchmark or the eligible universe, the same would be deleted from the index, irrespective of its liquidity.

The residual weights are redistributed to remaining liquid securities within the portfolio. The security weights are adjusted based on their liquidity for semi-annual reconstitution. Due to limited universe, this was not done at the performance inception of the index. If a security does not pass the selection criteria, the same would be deleted from the index, irrespective of its liquidity. Also, liquidity-informed weighting will be relaxed if a feasible solution is not obtained.

### Appendix 4: Individual Indexes

Index	Inception Date	Performance Inception Date	Hypothetical AUM
Morningstar Global Renewable Energy	October 27, 2020	December 18, 2015	USD 250m
Morningstar Developed Markets Renewable Energy	October 27, 2020	December 18, 2015	USD 250m
Morningstar Developed Europe Renewable Energy	October 27, 2020	December 18, 2015	USD 250m
Morningstar North America Renewable Energy	June 10, 2019	June 15, 2018	USD 100m

**About Morningstar, Inc.**

Morningstar, Inc. is a leading provider of independent investment research in North America, Europe, Australia, and Asia. Morningstar offers an extensive line of products and services for individual investors, financial advisors, asset managers, and retirement plan providers and sponsors. Morningstar provides data on approximately 510,000 investment offerings, including stocks, mutual funds, and similar vehicles, along with real-time global market data on more than 17 million equities, indexes, futures, options, commodities, and precious metals, in addition to foreign exchange and Treasury markets. Morningstar also offers investment management services through its investment advisory subsidiaries.

**About Morningstar Indexes**

Morningstar® Indexes combine the science and art of indexing to give investors a clearer view into the world's financial markets. Our indexes are based on transparent, rules-based methodologies that are thoroughly back-tested and supported by original research. Covering all major asset classes, our indexes originate from the Morningstar Investment Research Ecosystem—our network of accomplished analysts and researchers working to interpret and improve the investment landscape. Clients such as exchange-traded fund providers and other asset management firms work with our team of experts to create distinct, investor-focused products based on our indexes. Morningstar Indexes also serve as a precise benchmarking resource.

**Morningstar Index Product Committee**

The Morningstar Index Product Committee is comprised of members who possess a wide array of knowledge in relation to Indexes. The Product Committee is responsible for the governance over the creation and maintenance of all Morningstar branded Indexes, ensuring the highest standards are continuously met. Any matters arising from exceptional or undocumented events will be resolved at the discretion of the Morningstar Index Product Committee.

**Morningstar Index Oversight Committee**

The Morningstar Index Oversight Committee is comprised of informed and qualified professionals who are responsible for the process governance of Morningstar branded Indexes. The Oversight Committee assesses and where appropriate challenges the decisions of Morningstar Indexes with regards to benchmark decisions.

**For More Information**

For any queries, reach out to us via our [communication page](#).



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