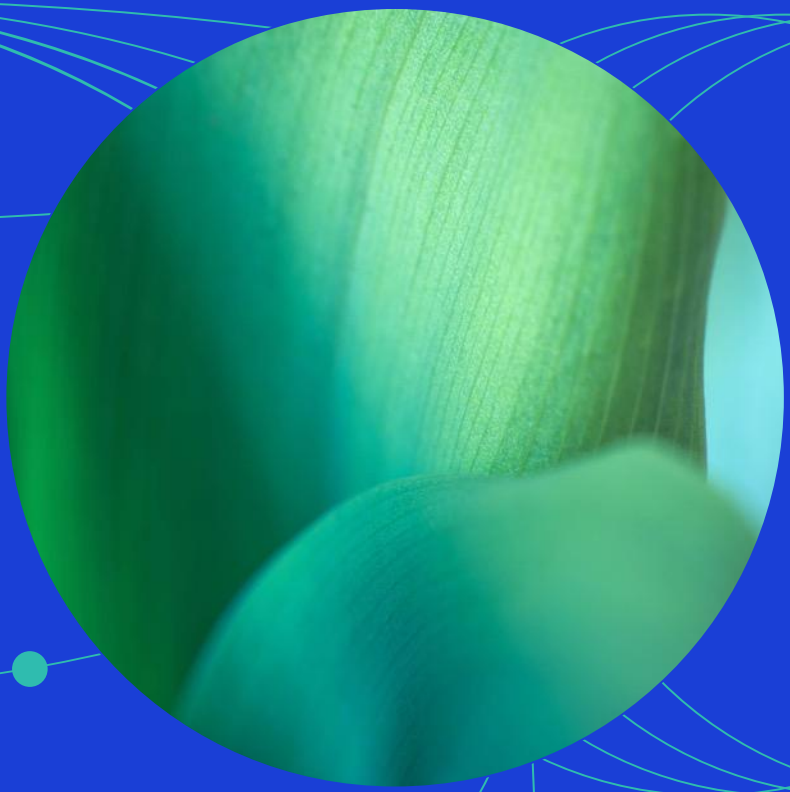
Index Methodology

November 2026

# MSCI Climate Paris Aligned Filtered PAB Indexes Methodology



© 2025 MSCI Inc. All rights reserved. Please refer to the disclaimer at the end of this document.

# Contents

**1 Introduction ..... 3**
**2 Constructing the Index ..... 4**
2.1 Eligible Universe ..... 4
2.2 Optimization Constraints ..... 5
2.3 Determining the Optimized Index ..... 7
2.4 Treatment of Unrated Companies ..... 7
**3 Maintaining the Index ..... 8**
3.1 Index Reviews ..... 8
3.2 Monthly Review of Controversies ..... 8
3.3 Ongoing Event-Related Changes ..... 8
**4 MSCI Solutions ..... 10**
4.1 MSCI Controversies ..... 10
4.2 MSCI Business Involvement Screening Research ..... 10
4.3 MSCI Climate Change Metrics ..... 10
4.3.1 Fossil Fuels and Power Generation Metrics ..... 11
4.3.2 Greenhouse Gas (GHG) Emissions ..... 11
4.3.3 Climate Value-at-Risk (VaR) ..... 11
4.4 MSCI Impact Solutions: Sustainable Impact metrics ..... 11
**Appendix I: Calculation of Target Metrics ..... 13**
**Appendix II: Decarbonization Trajectory of Indexes ..... 17**
**Appendix III: Barra Equity Model Used in the Optimization ..... 19**
**Appendix IV: New release of Barra® Equity Model or Barra® Optimizer ..... 20**
**Appendix V: Methodology Transition ..... 21**
**Appendix VI: Methodology Set ..... 22**
**Appendix VI: Changes to this Document ..... 23**

© 2026 MSCI Inc. All rights reserved. Please refer to the disclaimer at the end of this document.

# 1 Introduction

The MSCI Climate Paris Aligned Filtered PAB Indexes[1] (the "Indexes") are designed to support investors seeking to reduce their exposure to transition and physical climate risks and who wish to pursue opportunities arising from the transition to a lower-carbon economy, while aligning with the Paris Agreement requirements.

The Indexes are designed to exceed the minimum standards for EU Paris Aligned Benchmarks[2] , while minimizing ex-ante tracking error relative to the respective Parent Indexes.

The Indexes are constructed by applying an optimization process to their corresponding market capitalization-weighted indexes (the "Parent Indexes").

**Exclusions applied in addition to the EU PAB requirements**

- Companies involved in nuclear weapons
- Companies involved in civilian firearms
- Stricter exclusion criteria for oil and gas revenue
- Exclusion of companies involved in thermal coal, oil sands, arctic oil and gas activities

**Additional climate constraints that exceed the EU PAB requirements**

- Reduce potential emissions intensity by 50%
- Align with a 1.5°C climate scenario based on aggregated cumulative projected emissions
- Reduce the Index's exposure to physical risk arising from extreme weather events by at least 30%
- Increase the aggregated weight of companies with green business revenue by 100%
- Achieve a ratio of green to fossil fuel-based revenue of at least 4 times

[1] The Index is governed by a set of methodology and policy documents ("Methodology Set"), including the present index methodology document. Please refer to Appendix VI for more details.

[2] The corresponding minimum requirements are defined in Commission Delegated Regulation (EU) 2020/1818, available under https://eur-lex.europa.eu/eli/reg_del/2020/1818/oj. MSCI's approach to meeting these requirements is described in the MSCI EU CTB/PAB Index Framework, available under https://www.msci.com/index/methodology/latest/EUCTBPABIndexFramework. In case changes to the Index methodology are required to maintain compliance with the regulatory CTB/PAB labels, MSCI will issue an announcement prior to implementing the changes in the methodology. MSCI will not conduct a formal consultation for such an update.

© 2026 MSCI Inc. All rights reserved. Please refer to the disclaimer at the end of this document.

# 2 Constructing the Index

The Indexes use company research provided by MSCI Solutions LLC ("MSCI Solutions")[3] to determine eligibility for index inclusion.

## 2.1 Eligible Universe

The Eligible Universe is constructed from the constituents of the Parent Index by excluding securities based on the exclusion criteria from section 2.1 of the MSCI Climate Paris Aligned PAB Indexes methodology[2], and the additional exclusion criteria, listed below:

- **Thermal Coal:**
  - All companies that derive 5% or more revenue (either reported or estimated) from thermal coal-based power generation.
  - All companies the generate 50% or more power[3] from thermal coal.
  - All companies that own thermal coal reserves.
- **Unconventional Oil & Gas:** All companies that derive 5% or more revenue from oil sands, oil shale (kerogen-rich deposits), shale oil, coal seam gas, coal-bed methane and Arctic onshore/offshore reserves.
- **Oil Sands**: All companies that derive 5% or more revenue from oil sands extraction, which own oil sands reserves and disclose evidence of deriving revenue from oil sands extraction. Companies that derive revenue from non-extraction activities (e.g. exploration, surveying, processing, refining) or intra-company sales are not excluded. Additionally, companies that own oil sands reserves with no associated revenue are also not excluded.
- **Arctic Oil:** All companies that produce or derive 5% or more revenue from Arctic Oil. Companies that derive revenue from non-extraction activities (e.g. exploration, surveying, processing, refining) or intra-company sales are not excluded. Additionally, companies that own Arctic oil reserves with no associated extraction revenues are not excluded.
- **Arctic Gas:** All companies with that produce or derive 5% or more revenue from Arctic Gas. Companies that derive revenue from non-extraction activities (e.g. exploration, surveying, processing, refining) or intra-company sales are not excluded. Additionally, companies that own Arctic oil reserves with no associated extraction revenues are not excluded.

[3] See Section 4 for further information regarding sustainability and climate data used in the Indexes that MSCI Limited and MSCI Deutschland GmbH source from MSCI Solutions LLC ("MSCI Solutions"), a separate subsidiary of MSCI Inc. MSCI Solutions is solely responsible for the creation, determination and management of such data as a provider to MSCI Limited and MSCI Deutschland GmbH. MSCI Limited and MSCI Deutschland GmbH are the benchmark administrators for the MSCI indexes

[2] For more information, please refer to the MSCI Climate Paris Aligned PAB Indexes methodology at www.msci.com/index-methodology.

[3] As per https://www.ipcc.ch/site/assets/uploads/2018/02/ipcc_wg3_ar5_chapter7.pdf, thermal coal based power generation has median lifecycle emissions exceeding 100g$CO_2$/kWh.

© 2026 MSCI Inc. All rights reserved. Please refer to the disclaimer at the end of this document.

## 2.2 Optimization Constraints

At each Index Review, the Indexes are constructed using an optimization process that aims to achieve replicability and investability as well as minimize ex-ante tracking error relative to the Parent Index subject to the following constraints:

1. Transition and physical risk objectives – constraints detailed in Table 1
2. Transition opportunities objectives – constraints detailed in Table 2
3. Diversification objectives – constraints detailed in Table 3

The definitions of the target metrics for the optimization are detailed in Appendix II.

Table 1: Requirements imposed for the Index

| No. | Transition and Physical Risk Objective | Values |
|---|---|---|
| 1. | Minimum reduction in Greenhouse Gas (GHG) Intensity (Scope 1+2+3)[4] relative to Parent Index | 50% |
| 2. | Minimum average reduction (per annum) in GHG Intensity relative to GHG Intensity at the Base Date[5] | 7%[6] |
| 3. | Minimum active weight in High Climate Impact sector[7] relative to the Parent Index | 0% |
| 4. | Minimum reduction in Weighted Average Potential Emissions Intensity relative to the Parent Index. | 50% |
| 5. | Minimum reduction in Weighted Average Extreme Weather Climate Value-At-Risk[8] (Aggressive Scenario) relative to the Parent Index | 30% |

[4] Prior to the May 2020 Index Review, the Weighted Average Carbon Emissions Intensity has been calculated based on Scope 1+2 Emissions.

[5] Prior to the May 2020 Index Review of the Indexes, the average reduction in WACI has been calculated using Scope 1+2 Emissions since Inception.

[6] Prior to the November 2026 Index Review, the minimum average annual reduction (per annum) in GHG Intensity relative to the Base Date was 10%.

[7] For further details on how MSCI assigns companies to either the high or low climate impact sectors, please refer to the MSCI EU CTB/PAB Index Framework available on https://www.msci.com/index/methodology/latest/EUCTBPABIndexFramework.

[8] In case the Parent Index has a positive Weighted Average Extreme Weather Climate VaR, the floor will be applied at the level of the Weighted Average Extreme Weather Climate VaR of the Parent Index

© 2026 MSCI Inc. All rights reserved. Please refer to the disclaimer at the end of this document.

Table 2: Constraints imposed in order to meet transition opportunity objectives

| No. | Transition Opportunity Objective | Target Value |
|---|---|---|
| 6. | Minimum ratio of Weighted Average Green Revenue/ Weighted Average Fossil fuels-based Revenue relative to the Parent Index | 4 times |
| 7. | Minimum increase in Weighted Average Green Revenue relative to the Parent Index | 100% |

Table 3: Constraints imposed in order to meet diversification objectives

| No. | Diversification Objective | Target Value |
|---|---|---|
| 8. | Constituent Active Weight | +/- 2% |
| 9. | Minimum constituent weight | 0.01% |
| 10. | Security Weight as a multiple of its weight in the Parent Index | 20x |
| 11. | Active Sector Weights (the Energy Global Industry Classification Standard (GICS®)[11] Sector is not constrained) | +/-5% |
| 12. | Active Country Weights[12] | +/-5% |
| 13. | One Way Turnover | 5% |
| 14. | Common Factor Risk Aversion[13] | 0.0075 |
| 15. | Specific Risk Aversion[14] | 0.075 |

During the Index Review, in the event that there is no optimal solution that satisfies all the optimization constraints, the following constraints will be relaxed, until an optimal solution is found:

- Relax the one-way index turnover constraint in steps of 1% up to 20%
- Relax the active sector weight constraint in steps of 1% up to +/-20%
- Relax the constituent active weight bounds in steps of 1% up to +/-5%

The one-way index turnover constraint, the active sector weight constraint and the constituent active weight bounds are alternately relaxed until a feasible solution is achieved.

[11] GICS is the global industry classification standard jointly developed by MSCI and S&P Global Market Intelligence.

[12] In case there are countries in the Parent Index which weigh less than 2.5% in the Parent Index then for such countries the active country upper bound of +5% is not applicable. When a country weighs less than 2.5% in Parent Index then the upper bound of country weight in the Index is set at three times of the country's weight in Parent Index.

[13] The Common Risk Aversion penalizes systematic risk during the optimization process.

[14] The Specific Risk Aversion penalizes idiosyncratic (asset-specific) risk during the optimization process.

© 2026 MSCI Inc. All rights reserved. Please refer to the disclaimer at the end of this document.

In the event that no optimal solution is found after the above constraint relaxations are exhausted, the relevant Indexes will not be rebalanced for that Index Review.

## 2.3 Determining the Optimized Index

The Index is constructed using the Barra Open Optimizer[15] in combination with the relevant Barra Equity Model. The optimization uses universe of eligible securities and the specified optimization objectives and constraints to determine the constituents of the Indexes.

## 2.4 Treatment of Unrated Companies

Companies not assessed by MSCI Solutions on the following MSCI sustainability and climate products are not eligible for inclusion in the Indexes.

- MSCI Controversies
- MSCI Business Involvement Screening Research (BISR)
- MSCI Climate Change Metrics

For the treatment of companies where the Scope 1+2+3 Emissions Intensity is not available, please refer to Appendix I.

[15] Please refer to Appendix III and IV for more details.

© 2026 MSCI Inc. All rights reserved. Please refer to the disclaimer at the end of this document.

# 3 Maintaining the Index

## 3.1 Index Reviews

The Indexes are reviewed on a semi-annual basis as of the close of the last business day of May and November to coincide with the May and November Index Reviews of the MSCI Global Investable Market Indexes, and the changes are implemented as of the close of the last business day of May and November. In general, the pro forma Indexes are announced nine business days before the effective date.

In general, MSCI uses MSCI Solutions data (including MSCI Climate Change Metrics, MSCI Climate Value-at-Risk, MSCI Sustainable Impact Metrics, MSCI Controversies and MSCI Business Involvement Screening Research) as of the end of the month preceding the Index Reviews for the rebalancing of the Indexes.

## 3.2 Monthly Review of Controversies

Index constituents are reviewed on a monthly basis for the involvement in ESG and Environmental Controversies[16].

Existing constituents will be deleted if they are assessed as having involvement in controversies that are classified as Red Flags (MSCI Controversies Score of 0) or Environmental controversies that are classified as Red (MSCI Environmental Controversy score of 0) or Orange Flags (score of 1).

A Red Flag indicates an ongoing, Very Severe controversy implicating a company directly through its actions, products, or operations. An Orange Flag indicates an ongoing Severe controversy implicating a company directly, or a Very Severe controversy that is either partially resolved or indirectly attributed to the company's actions, products, or operations. Existing Index constituents with missing MSCI Controversy Scores are not deleted during Monthly Review of Controversies.

MSCI uses MSCI Controversies data as of the end of the month preceding the review (e.g., end of June data for the July monthly review). For some securities, such data may not be published by MSCI Solutions by the end of the month preceding the review. For such securities, MSCI will use data published after the end of month, when available, for the monthly review of the Index.

The pro forma Indexes are generally announced nine business days before the effective date.

## 3.3 Ongoing Event-Related Changes

The general treatment of corporate events in the Indexes aims to minimize turnover outside of Index Reviews. The methodology aims to appropriately represent an investor's participation in an event based on relevant deal terms and pre-event weighting of the index constituents that are involved.

[16] The monthly review of Controversies is applied within the Index, starting on July 2023, and is not applicable historically prior to that date.

© 2026 MSCI Inc. All rights reserved. Please refer to the disclaimer at the end of this document.

Further, changes in index market capitalization that occur as a result of corporate event implementation will be offset by a corresponding change in the Variable Weighting Factor (VWF) of the constituent.

Additionally, if the frequency of Index Reviews in the Parent Index is greater than the frequency of Index Reviews in the Index, the changes made to the Parent Index during intermediate Index Reviews will be neutralized in the Index.

The following section briefly describes the treatment of common corporate events within the Index.

No new securities will be added (except where noted below) to the Index between Index Reviews. Parent Index deletions will be reflected simultaneously.

| Event Type | Event Details |
|---|---|
| **New additions to the Parent Index** | A new security added to the Parent Index (such as IPO and other early inclusions) will not be added to the Index between Index Reviews. |
| **Spin-Offs** | All securities created as a result of the spin-off of an existing Index constituent will be added to the Index at the time of event implementation. Reevaluation for continued inclusion in the Index will occur at the subsequent Index Review. |
| **Merger/Acquisition** | For Mergers and Acquisitions, the acquirer's post event weight will account for the proportionate amount of shares involved in deal consideration, while cash proceeds will be invested across the Index.<br>If an existing Index constituent is acquired by a non-Index constituent, the existing constituent will be deleted from the Index and the acquiring non-constituent will not be added to the Index. |
| **Changes in Security Characteristics** | A security will continue to be an Index constituent if there are changes in characteristics (country, sector, size segment, etc.) Reevaluation for continued inclusion in the Index will occur at the subsequent Index Review. |

Further detail and illustration regarding specific treatment of corporate events relevant to this Index can be found in the MSCI Corporate Events Methodology book under the sections detailing the treatment of events in Capped Weighted and Non-Market Capitalization Weighted indexes.

The MSCI Corporate Events methodology book is available at:
https://www.msci.com/index/methodology/latest/CE.

© 2026 MSCI Inc. All rights reserved. Please refer to the disclaimer at the end of this document.

# 4 MSCI Solutions

The Indexes are products of MSCI Inc. that utilize information such as company ratings and research produced and provided by MSCI Solutions LLC ("MSCI Solutions"), a subsidiary of MSCI Inc. In particular, the Indexes use the following MSCI solutions and climate products: MSCI Controversies, MSCI Business Involvement Screening Research, MSCI Climate Change Metrics and MSCI Impact Solutions. MSCI Indexes are administered by MSCI Limited and MSCI Deutschland GmbH.

## 4.1 MSCI Controversies

MSCI Controversies provide assessments of controversies concerning the potential negative environmental, social, and/or governance impact of company operations, products and services. The evaluation framework used in MSCI Controversies is designed to be consistent with international norms represented by the UN Declaration of Human Rights, the ILO Declaration on Fundamental Principles and Rights at Work, and the UN Global Compact. MSCI Controversies Score falls on a 0-10 scale, with "0" being the most severe controversy.

The MSCI Controversies methodology can be found at[https://www.msci.com/legal/sustainability-and-climate-resources-and-disclosures](https://www.msci.com/legal/sustainability-and-climate-resources-and-disclosures)

## 4.2 MSCI Business Involvement Screening Research

MSCI Business Involvement Screening Research (BISR) aims to enable institutional investors to manage environmental, social and governance (ESG) standards and restrictions reliably and efficiently.

The MSCI Business Involvement Screening Research methodology can be found at:
[https://www.msci.com/legal/sustainability-and-climate-resources-and-disclosures](https://www.msci.com/legal/sustainability-and-climate-resources-and-disclosures)

## 4.3 MSCI Climate Change Metrics

MSCI Climate Change Metrics provides climate data and tools to support institutional investors seeking to integrate climate risk and opportunities into their investment strategy and processes. This includes investors seeking to achieve a range of objectives, including measuring and reporting on climate risk exposure, implementing low carbon and fossil fuel-free strategies, alignment with temperature pathways and factoring climate change research into their risk management processes, in particular through climate scenario analysis for both transition and physical risks.

The dataset spans across the four dimensions of a climate strategy: transition risks, green opportunities, physical risks and 1.5° alignment.

For more details on MSCI Climate Change Metrics, please refer to
[https://www.msci.com/legal/sustainability-and-climate-resources-and-disclosures](https://www.msci.com/legal/sustainability-and-climate-resources-and-disclosures)

© 2026 MSCI Inc. All rights reserved. Please refer to the disclaimer at the end of this document.

### 4.3.1 Fossil Fuels and Power Generation Metrics

MSCI Solutions identifies companies involved in fossil fuel-related assets and activities including fossil fuel reserves, resource extraction, power generation and generation capacity, revenue from such assets and activities and capital investments in such assets and activities. The metrics are based on disclosed activities, disclosed revenue and estimates of revenue that are extrapolated from company disclosures and eligible third-party sources (such as NGOs).

### 4.3.2 Greenhouse Gas (GHG) Emissions

MSCI Solutions collects reported emissions and uses proprietary estimation methodologies that follows the GHG Protocol in including carbon dioxide (CO2) and the five other principal GHGs: hydrofluorocarbons (HFCs), methane (CH4), nitrous oxide (N2O), perfluorocarbons (PFCs), and sulfur hexafluoride (SF6). Emissions of these other gases are accounted for in terms of the quantity of CO2 that has an equivalent global warming potential.

### 4.3.3 Climate Value-at-Risk (VaR)

Climate VaR provides a forward-looking and return-based valuation assessment to measure climate-related risks and opportunities. Climate VaR is a quantitative assessment calculated at the company and security level. The aggregated company Climate VaR is calculated as a percentage of market value (from -100% to +100%) for multiple climate scenarios and includes the valuation impacts arising from technology opportunities, policy risks and physical risks. The Climate VaR model uses a data-driven approach, examining a company's positioning within its industry and the regions where it operates. It considers the potential costs and profits associated with different climate scenarios, including the impacts of carbon pricing, regulatory changes, and physical climate events. By simulating these scenarios, the model estimates how climate change could affect a company's financial performance and overall valuation.

## 4.4 MSCI Impact Solutions: Sustainable Impact metrics

MSCI Impact Solutions' Sustainable Impact Metrics is designed to identify companies that derive revenue from products or services with positive impact on society and the environment. The Sustainable Impact Metrics are comprised of six Environmental Impact categories and seven Social Impact categories arranged by theme.

**MSCI Sustainable Impact Taxonomy**

| Pillar | Themes | Categories |
|---|---|---|
| Environmental Impact | Climate Change | 1. Alternative energy<br>2. Energy efficiency<br>3. Green building |
| | Natural capital | 4. Sustainable water<br>5. Pollution prevention<br>6. Sustainable agriculture |

© 2026 MSCI Inc. All rights reserved. Please refer to the disclaimer at the end of this document.

| | | |
|---|---|---|
| **Social Impact** | Basic needs | 7. Nutrition<br>8. Major Disease Treatment<br>9. Sanitation<br>10. Affordable Real Estate |
| | Empowerment | 11. SME Finance<br>12. Education<br>13. Connectivity – Digital divide |

Under each of the actionable environmental and social impact themes, MSCI Solutions has identified specific categories of products and services that it has determined companies can offer as potential solutions to environmental and social challenges.

For more details on MSCI Sustainable Impact Metrics, please refer to https://www.msci.com/legal/sustainability-and-climate-resources-and-disclosures

© 2026 MSCI Inc. All rights reserved. Please refer to the disclaimer at the end of this document.

# Appendix I: Calculation of Target Metrics

### Greenhouse Gas (GHG) Emissions Intensity

MSCI Solutions collects company-specific direct (Scope 1) and indirect (Scope 2) greenhouse gas emissions (GHG) data from company public documents and/or the Carbon Disclosure Project. If a company does not report GHG emissions, then MSCI Solutions estimates Scope 1 and Scope 2 GHG emissions.

MSCI Solutions estimates company-specific indirect (Scope 3) GHG emissions from the Scope 3 Carbon Emissions Estimation Model. The data is generally updated on an annual basis.

### Calculation of GHG Intensity

Carbon emissions of a company are normalized for size by dividing annual carbon emissions by Enterprise Value including Cash (EVIC). The Carbon Emissions Intensity is calculated using the latest Scope 1+2 carbon emissions, Scope 3 carbon emissions and EVIC of a company.

Security Level GHG Intensity (Scope 1+2+3) =

$$(Unadjusted\ Security\ Level\ GHG\ Intensity\ (Scope\ 1+2) + Unadjusted\ Security\ Level\ GHG\ Intensity\ (Scope\ 3)) * (1 + EVIAF)$$

Unadjusted Security Level GHG Intensity (Scope 1+2) =

$$\frac{(Scope\ 1+2\ Carbon\ Emissions)}{EVIC\ (in\ M\$)}$$

If Scope 1+2 carbon emissions and/or EVIC are not available, the average Scope 1+2 intensity of all the constituents of the MSCI ACWI in the same GICS Industry Group in which the security belongs is used.

Unadjusted Security Level GHG Intensity (Scope 3) =

$$\frac{(Scope\ 3\ Carbon\ Emissions)}{EVIC\ (in\ M\$)}$$

If Scope 3 carbon emissions and/or EVIC are not available, the average Scope 3 intensity of all the constituents of the MSCI ACWI in the same GICS Industry Group in which the security belongs is used.

Enterprise Value Inflation Adjustment Factor (EVIAF) =

$$\left(\frac{Average(EVIC)}{Previous\ (Average(EVIC))}\right) - 1$$

© 2026 MSCI Inc. All rights reserved. Please refer to the disclaimer at the end of this document.

Weighted Average GHG Intensity of Parent Index =

$$\sum(Weight\ in\ Parent\ Index * \ Security\ Level\ GHG\ Intensity)$$

Weighted Average GHG Intensity of Derived Index =

$$\sum(Index\ Weight * \ Security\ Level\ GHG\ Intensity)$$

### Calculation of Potential Carbon Emissions Intensity

Security Level Potential Carbon Emissions (PCE) Intensity =

$$\frac{Absolute\ Potential\ Emissions}{EVIC(in\ M\$)}$$

If Absolute Potential Emissions data is not available, MSCI uses zero fossil fuel reserves.

Weighted Average Potential Emissions Intensity of Parent Index =

$$\sum(Weight\ in\ Parent\ Index * \ Security\ Level\ PCE\ Intensity)$$

Weighted Average Potential Emissions Intensity of Derived Index =

$$\sum(Index\ Weight * \ Security\ Level\ PCE\ Intensity)$$

### Calculation of Green Revenue to Fossil fuels-based Revenue Multiple

Green Revenue

For each constituent in the Parent Index, the Green Revenue% is calculated as the cumulative revenue (%) from the six Clean Tech themes listed below:

- Alternative Energy – products and services that support the transmission, distribution and generation of renewable energy and alternative fuels to reduce carbon and pollutant emissions in supporting affordable and clean energy to combat climate change.
- Energy Efficiency[9] – products, and services that support the maximization of productivity in labor, transportation, power and domestic applications with minimal energy consumption to ensure universal access to affordable, reliable and modern energy services.

[9] Revenue derived from IT Optimization & Services is excluded. This includes revenue derived from IT optimization services & infrastructure, like virtualization, data center optimization, cloud platform enablement and other similar technology.

© 2026 MSCI Inc. All rights reserved. Please refer to the disclaimer at the end of this document.

- Sustainable Water – products, services, infrastructure projects and technologies that resolve water scarcity and water quality issues, through minimizing and monitoring current water demand, improving the quality and availability of water supply to improve resource management in both domestic and industrial use.
- Green Building – design, construction, redevelopment, retrofitting, or acquisition of green-certified properties to promote mechanisms for raising capacity for effective climate change mitigation and adaptation.
- Pollution Prevention – products, services, infrastructure projects and technologies that reduces volume of waste materials through recycling, minimizes introduction of toxic substances, and offers remediation of existing contaminants such as heavy metals and organic pollutants in various environmental media to significantly address pollution in all levels and its negative effects
- Sustainable Agriculture - revenues from forest and agricultural products that meet environmental and organic certification requirements to address significantly biodiversity loss, pollution, land disturbance, and water overuse

The Weighted Average Green Revenue% is calculated as:

$$= \sum(Weight\ in\ Index * \ Green\ Revenue\%)$$

Fossil fuels-based Revenue

For each constituent in the Parent Index, the Fossil fuels-based Revenue% is calculated as the cumulative revenue (%) from the following sources:

- Revenue% (either reported or estimated) from the mining of thermal coal (including lignite, bituminous, anthracite and steam coal) and its sale to external parties. It excludes revenue from metallurgical coal, coal mined for internal power generation (e.g. in the case of vertically integrated power producers), intra-company sales of mined thermal coal and revenue from coal trading (either reported or estimated)
- Revenue% from the extraction, production and refining of Conventional and Unconventional Oil & Gas. Conventional Oil and Gas includes Arctic onshore/offshore, deep water, shallow water and other onshore/offshore. Unconventional Oil and Gas includes oil sands, oil shale (kerogen-rich deposits), shale gas, shale oil, coal seam gas, and coal bed methane.
- Revenue% from thermal coal based power generation, liquid fuel based power generation and natural gas based power generation.

The Weighted Average Fossil fuels-based Revenue% is calculated as:

$$= \sum(Weight\ in\ Index * \ Fossil\ fuels - based\ Revenue\%)$$

© 2026 MSCI Inc. All rights reserved. Please refer to the disclaimer at the end of this document.

The Green Revenues to Fossil fuels-based Revenues multiple for either the Parent Index or the Index is calculated as a ratio of the Weighted Average Green Revenue to the Weighted Average Fossil fuels-based Revenue as per the formula below:

$$= \frac{Weighted\ Average\ Green\ Revenue\%}{Weighted\ Average\ Fossil\ fuels-based\ Revenue\%}$$

**MSCI Climate Value-at-Risk**

4°C Aggregated Physical Risk Equity Climate VaR (IPCC SSP3-7.0, Aggressive Outcome) [%]

An equity's "worst-case" (95th percentile) downside or upside potential, expressed as a percentage of the equity's market value, assuming trends in extreme cold, extreme heat, extreme precipitation, heavy snowfall, extreme wind, coastal flooding, fluvial flooding, river low flow, tropical cyclones and wildfires continue along the 4°C IPCC SSP3-7.0 scenario.

© 2026 MSCI Inc. All rights reserved. Please refer to the disclaimer at the end of this document.

# Appendix II: Decarbonization Trajectory of Indexes

**Decarbonization Data**

The Weighted Average GHG Intensity on the Base Date ($W_{tb}$) is used to compute the target Weighted Average GHG Intensity at any given Index Review ($W_t$) as per the below formula.

The target year-on-year decarbonization has been aligned to the 7% minimum EU PAB requirement on a going-forwards basis, starting at the point of the methodology transition at the November 2026 Index Review.

At each Index Review, the target weighted average GHG Intensity is calculated by applying a 10% year-on-year reduction from the base date up to the June 2026 Index Review, and a 7% year-on-year reduction thereafter.

$$W_t = W_{tb} * \ 0.90^{\frac{min(t-t_b,\ t_c-t_b-1)}{2}} * \ 0.93^{\frac{max(0,\ t-t_c+1)}{2}}$$

Where

- $t_b$ is the Base Date.
- $t_c$ is the methodology transition date (implemented at the November 2026 Index Review, effective December 1, 2026).
- $t_c - t_b - 1$ is the number of semi-annual Index Reviews between the Base Date and $t_c$, excluding the Base Date, and excluding $t_c$.
- $t - t_c + 1$ is the number of semi-annual Index Reviews that have elapsed since (and including) $t_c$.

In particular, the above formula means that for the period from the June 2026 Index Review to the November 2026 Index Review, the new 7% year-on-year target decarbonization rate is applicable.

The table below shows the Weighted Average GHG Intensity on the Base Date($W_1$) for each of the regions where the Indexes are constructed:

| Index | Parent Index | Base Date | $W_1$ (tCO2/M$ Enterprise Value + Cash) |
|---|---|---|---|
| MSCI World Climate Paris Aligned Filtered PAB Index | MSCI World Index | June 01, 2020 | 222.21 |
| MSCI Europe Climate Paris Aligned Filtered PAB Index | MSCI Europe Index | June 01, 2020 | 266.16 |
| MSCI EMU Climate Paris Aligned Filtered PAB Index | MSCI EMU Index | June 01, 2020 | 301.70 |

© 2026 MSCI Inc. All rights reserved. Please refer to the disclaimer at the end of this document.

| | | | |
|---|---|---|---|
| MSCI EM (Emerging Markets) Climate Paris Aligned Filtered PAB Index | MSCI EM (Emerging Market) Index | June 01, 2020 | 316.20 |

The calculation of the targeted decarbonization trajectory is specified in section 4 of the MSCI EU CTB/PAB Index Framework[20].

[20] For further details on the MSCI EU CTB/PAB Index Framework, please refer to: https://www.msci.com/index/methodology/latest/EUCTBPABIndexFramework

© 2026 MSCI Inc. All rights reserved. Please refer to the disclaimer at the end of this document.

# Appendix III: Barra Equity Model Used in the Optimization

The Indexes currently use an optimization setup using the MSCI Barra Global Equity Model for Long-Term Investors (GEMLTL).

© 2026 MSCI Inc. All rights reserved. Please refer to the disclaimer at the end of this document.

# Appendix IV: New release of Barra® Equity Model or Barra® Optimizer

A major new release of the relevant Barra Equity Model or Barra Optimizer may replace the former version within a suitable timeframe.

© 2026 MSCI Inc. All rights reserved. Please refer to the disclaimer at the end of this document.

# Appendix V: Methodology Transition

As part of the November 2026 Index Review, the index construction methodology was updated with the following enhancements:

- The annual GHG intensity decarbonization target was updated from 10% to 7%.
- The constraints on Aggregated Climate Value-at-Risk and Companies Setting Targets were removed.
- The minimum reduction in Weighted Average Physical Risk Climate Value-at-Risk (Aggressive Scenario) relative to the Parent Index was updated from 50% to 30%.
- The minimum increase in weighted average Low Carbon Transition Score relative to the Parent Index was removed.
- The definition of Green Revenue was updated to exclude IT Optimization & Services for the purposes of calculating the minimum increase in Weighted Average Green Revenue constraint.

At the time of the transition, the one-way turnover constraint described in Section 2.2 was not applied. Instead a 20% turnover limit was applied to manage the transition at the November 2026 Index Review.

Note that the update in the minimum annual reduction in GHG Intensity is applied on a going-forward basis from the point of the November 2026 Index Review. Details on the calculation of the decarbonization trajectory, including the transition treatment, are described in Appendix II.

© 2026 MSCI Inc. All rights reserved. Please refer to the disclaimer at the end of this document.

# Appendix VI: Methodology Set

The Indexes are governed by a set of methodology and policy documents ("Methodology Set"), including the present index methodology document as mentioned below:

- Description of methodology set – https://www.msci.com/index/methodology/latest/ReadMe
- MSCI Corporate Events Methodology – https://www.msci.com/index/methodology/latest/CE
- MSCI Fundamental Data Methodology – https://www.msci.com/index/methodology/latest/FundData
- MSCI Index Calculation Methodology – https://www.msci.com/index/methodology/latest/IndexCalc
- MSCI Index Glossary of Terms – https://www.msci.com/index/methodology/latest/IndexGlossary
- MSCI Index Policies – https://www.msci.com/index/methodology/latest/IndexPolicy
- MSCI Global Industry Classification Standard (GICS) Methodology – https://www.msci.com/index/methodology/latest/GICS
- MSCI Global Investable Market Indexes Methodology – https://www.msci.com/index/methodology/latest/GIMI
- MSCI Climate Paris Aligned PAB Index Methodology – https://www.msci.com/index/methodology/latest/ClimatePAB
- MSCI EU CTB/PAB Index Framework – https://www.msci.com/index/methodology/latest/EUCTBPABIndexFramework
- ESG Factors In Methodology*

The Methodology Set for the Index can also be accessed from MSCI's webpage https://www.msci.com/index-methodology in the section 'Search Methodology by Index Name or Index Code'.

* 'ESG Factors in Methodology' contains the list of environmental, social, and governance factors considered, and how they are applied in the methodology (e.g., selection, weighting or exclusion). It can be accessed in the Methodology Set as described above.

© 2026 MSCI Inc. All rights reserved. Please refer to the disclaimer at the end of this document.

# Appendix VI: Changes to this Document

**The following sections have been modified as of February 2023:**

- Methodology book was updated to reflect the transition of the MSCI Global Investable Market Indexes (GIMI) to Quarterly Comprehensive Index Reviews.
- All references to "Semi-Annual Index Reviews" and "Quarterly Index Reviews" of the MSCI Global Investable Market Indexes were replaced with "Index Reviews."

**The following sections have been modified as of May 2023:**

- Methodology book was updated to reflect the change in the target for Aggregate Climate Value -At-Risk from greater than or equal to 0% to greater than or equal to -5%.
- The definition of Companies Setting Targets was expanded to include any company which has received Science Based Targets from the Science Based Targets Initiative (SBTi)
- The calculation of aggregate weight of 'Companies Setting Target' will only include companies which are not excluded from the index, as per the exclusion criteria described in Section 2.2 of the methodology document.
- The ESG Research Product descriptions were updated and moved from Section 2 to Section 4
- The Weighted Average GHG Intensity on the Base Date was added indexes in Appendix 4

**The following sections have been modified as of July 3, 2023:**

The monthly review of ESG Controversies is applied within the Index effective July 3, 2023, and is not applicable historically prior to that date.

**The following sections have been modified as of November 2023:**

- The ESG Screening criteria was updated to remove the reference to nuclear weapons in Section 2.1 as this screen is now applied in the standard Climate Paris Aligned PAB Indexes methodology.
- The special treatment for the Aggregate Climate Value-at-Risk constraint for the MSCI EM Climate Paris Aligned Filtered PAB Index at the November 2023 Index Review was noted in Section 2.2
- The treatment of companies with ratings and research not available from MSCI ESG Research was added to Section 2.4
- The Companies Setting Target description was updated in Table 1 and Appendix III.
- The Climate Value-at-Risk models and scenarios used were updated in Appendix II and III.

**The following sections have been modified as of May 2024**

- Updated the exclusion criteria for the Thermal Coal Power Generation screen in Section 2.1
- Missing data treatment for Monthly Review of Controversies clarified in Section 3.2
- Added detail on the Methodology Set for the Indexes in Appendix VII

© 2026 MSCI Inc. All rights reserved. Please refer to the disclaimer at the end of this document.

**The following sections have been modified as of November 2024**

Section 2.4: Treatment of Unrated Companies

- Added the treatment of companies when business involvement screening research or climate change metrics research not available from MSCI ESG Research

Section 4.5 Optimization Constraints

- Removed Aggregate Climate Value-At-Risk from the optimization constraints.

Appendix I: MSCI Low Cabron Transition Risk Assessment

- Updated language and the Low Carbon Transition Categories and Scores table

Appendix II: MSCI Climate Value-At-Risk

- Removed Appendix, effective November 2024 the Indexes will no longer apply Aggregated Policy Risk Equity Climate VaR or Technology Opportunities Equity Climate VaR.

Appendix II: Calculation of Target Metrics

- Added new subsection for the Aggregated Physical Risk Equity Climate VaR

**The following sections have been modified as of May 2025**

Section 1: Introduction

- Updated footnote with reference to MSCI EU CTB/PAB Index Framework.

Section 2.1: Eligible Universe

- Removed the conventional weapons screen and description. Effective May 2025 Index Review, conventional weapons will no longer be excluded from the Indexes.

Section 2.2: Optimization Parameters, Appendix II: Calculation of Target Metrics

- Added references to the MSCI EU CTB/PAB Index Framework for the definition of climate impact sectors and calculation of decarbonization trajectory.

Section 4: MSCI ESG Research

- Added a sub-section under Climate Change Metrics to provide additional details on Fossil Fuel and Power Generation Metrics, Greenhouse Gas Emissions, Low Carbon Transition Risk Assessment and Climate Value at Risk (VaR).

Appendix III: Decarbonization Trajectory of Indexes

- Added reference to the MSCI EU CTB/PAB Index Framework for the calculation of decarbonization trajectory.

Appendix VI: Methodology Set

- Added reference to the MSCI EU CTB/PAB Index Framework.

**The following section has been modified as of December 2025**

© 2026 MSCI Inc. All rights reserved. Please refer to the disclaimer at the end of this document.

- The methodology and Index names were updated. As of December 3, 2025, the MSCI Climate Paris Aligned Filtered Indexes have been renamed as MSCI Climate Paris Aligned Filtered PAB Indexes.

**The following sections have been modified as of November 2026**

Section 1: Introduction

- Updated section to adjust the description of the MSCI Climate Paris Aligned Filtered PAB Indexes accordingly

Section 2.2: Optimization Constraints

- The minimum increase in weighted average Low Carbon Transition (LCT) Score and the minimum increase in the aggregate weight of Companies Setting Targets were removed
- The minimum average reduction in GHG Intensity (per annum) was lowered from 10% to 7%
- The minimum reduction in Weighted Average Extreme Weather Climate Value-at-Risk relative to Parent Index was modified from 50% to 30%
- Updated the infeasibility relaxation procedure to include relaxation of constituent active weight bounds in steps of 1% up to +/-5%.
- Updated the relaxation steps when there is not optimal solution

Section 4.3: Climate Change Metrics

- The Low-Carbon Transition (LCT) Risk Assessment Subsection was removed

Appendix I: MSCI Low Carbon Transition Risk Assessment

- This appendix was removed

Appendix I: Calculation of Target Metrics

- The Green Revenues description was updated to exclude revenue derived from IT Optimization & Services
- The Companies Setting Targets and the Aggregated Climate Value-at-Risk were removed

Appendix II: Decarbonization Trajectory of Indexes

- Added a note reflecting the reduction in annual decarbonization rate from 10% to 7%, effective from the November 2026 Index Review.

Appendix V: Methodology Transition

- New Appendix to detail the index construction methodology enhancements

© 2026 MSCI Inc. All rights reserved. Please refer to the disclaimer at the end of this document.

# Contact us

**About MSCI**

MSCI. Inc. (NYSE: MSCI) strengthens global markets by connecting participants across the financial ecosystem with a common language. Our research-based data, analytics and indexes, supported by advanced technology, set standards for global investors and help our clients understand risks and opportunities so they can make better decisions and unlock innovation. We serve asset managers and owners, private-market sponsors and investors, hedge funds, wealth managers, banks, insurers and corporates.

To learn more, please visit www.msci.com.

The process for submitting a formal index complaint can be found on the index regulation page of MSCI's website at: https://www.msci.com/index-regulation.


**AMERICAS**

| | |
|---|---|
| United States | + 1 888 588 4567 * |
| Canada | + 1 416 687 6270 |
| Brazil | + 55 11 4040 7830 |
| Mexico | + 52 81 1253 4020 |

**EUROPE, MIDDLE EAST & AFRICA**

| | |
|---|---|
| South Africa | + 27 21 673 0103 |
| Germany | + 49 69 133 859 00 |
| Switzerland | + 41 22 817 9777 |
| United Kingdom | + 44 20 7618 2222 |
| Italy | + 39 02 5849 0415 |
| France | + 33 17 6769 810 |

**ASIA PACIFIC**

| | |
|---|---|
| China | + 86 21 61326611 |
| Hong Kong | + 852 2844 9333 |
| India | + 91 22 6784 9160 |
| Malaysia | 1800818185 * |
| South Korea | + 82 70 4769 4231 |
| Singapore | + 65 67011177 |
| Australia | + 612 9033 9333 |
| Taiwan | 008 0112 7513 * |
| Thailand | 0018 0015 6207 7181 * |
| Japan | + 81 3 4579 0333 |

* toll-free


© 2026 MSCI Inc. All rights reserved.

# Notice and Disclaimer

The data, data feeds, databases, reports, text, graphs, charts, images, videos, recordings, models, metrics, analytics, indexes, ratings, scores, cases, estimates, assessments, software, websites, products, services and other information and materials contained herein or delivered in connection with this notice (collectively, the "Information") are copyrighted, trade secrets (when not publicly available), trademarks and proprietary property of MSCI Inc. or its subsidiaries (collectively, "MSCI"), MSCI's licensors, direct or indirect suppliers and authorized sources, and/or any third party contributing to the Information (collectively, with MSCI, the "Information Providers"). All rights in the Information are reserved by MSCI and its Information Providers and user(s) shall not, nor assist others to, challenge or assert any rights in the Information.

Unless you contact MSCI and receive its prior written permission, you must NOT use the Information, directly or indirectly, in whole or in part (i) for commercial purposes, (ii) in a manner that competes with MSCI or impacts its ability to commercialize the Information or its services, (iii) to provide a service to a third party, (iv) to permit a third party to directly or indirectly access, use or resell the Information, (v) to redistribute or resell the Information in any form, (vi) to include the Information in any materials for public dissemination such as fund factsheets, market presentations, prospectuses, and investor information documents (e.g. KIIDs or KIDs), (vii) to create or as a component of any financial products (including any digital assets, tokenized funds or other tokenized or blockchain-based products), whether listed or traded over the counter or on a private placement basis or otherwise, (viii) to create, enhance or optimize any indexes, ratings or other data products, including in derivative works combined with other indexes or data or as a policy, product or performance benchmarks for active, passive or other financial products, (ix) to populate a database, (x) to train, use as an input to, or otherwise in connection with any artificial intelligence, machine learning, large language models or similar technologies except as licensed and expressly authorized under MSCI's AI Contracting Supplement at https://www.msci.com/legal/supplemental-terms-for-client-use-of-artificial-intelligence, or (xi) to access or extract the Information using unauthorized bots, scrapers, crawlers, AI agents, MCP servers or connectors, or other automated means, or to circumvent any technical protections.

The intellectual property rights of MSCI and its Information Providers may not be misappropriated or used in a competitive manner through the use of third-party data or financial products linked to the Information, including by using an MSCI index-linked future or option in a competing third-party index to provide an exposure to the underlying MSCI index or by using an MSCI index-linked ETF or other tokenized or digital instrument, directly or indirectly, to create a financial product that provides an exposure to the underlying MSCI index without obtaining a license from MSCI.

The user or recipient of the Information assumes the entire risk of any use it may make, permit or cause to be made of the Information. NONE OF THE INFORMATION PROVIDERS MAKES ANY EXPRESS OR IMPLIED WARRANTIES OR REPRESENTATIONS WITH RESPECT TO THE INFORMATION (OR THE RESULTS TO BE OBTAINED BY THE USE THEREOF), AND TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, EACH INFORMATION PROVIDER EXPRESSLY DISCLAIMS ALL IMPLIED WARRANTIES (INCLUDING ANY IMPLIED WARRANTIES OF ORIGINALITY, ACCURACY, TIMELINESS, SUITABILITY, NON-INFRINGEMENT, COMPLETENESS, MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE) WITH RESPECT TO ANY OF THE INFORMATION. Without limiting any of the foregoing and to the maximum extent permitted by applicable law, in no event shall MSCI or any other Information Provider have any liability arising out of or relating to any of the Information, including for any direct, indirect, special, punitive, consequential (including lost profits) or any other damages, even if notified of the possibility of such damages. The foregoing shall not exclude or limit any liability that may not by applicable law be excluded or limited.

The Information, including index construction, ratings, historical data, or analysis, is not a prediction or guarantee of future performance, and must not be relied upon as such. Past performance is not indicative of future results. The Information may contain back tested data. Back-tested performance based on back-tested data is not actual performance but is hypothetical. There are frequently material differences between back tested performance results and actual results subsequently achieved by any investment strategy. The Information may include "Signals," defined as quantitative attributes or the product of methods or formulas that describe or are derived from calculations using historical data. Signals are inherently backward-looking because of their use of historical data, and they are inherently inaccurate, not intended to predict the future and must not be relied upon as such. The relevance, correlations and accuracy of Signals frequently change materially over time.

The Information may include data relating to indicative prices, evaluated pricing or other information based on estimates or evaluations (collectively, "Evaluations") that are not current and do not reflect real-time traded prices. No evaluation method, including those used by the Information Providers, may consistently generate evaluations or estimates that correspond to actual "traded" prices of any relevant securities or other assets. Evaluations are subject to change at any time without notice and without any duty to update or inform you, may not reflect prices at which actual transactions or collateral calls may occur or have occurred. The market price of securities, financial instruments, and other assets can be determined only if and when executed in the market. There may be no, or may not have been any, secondary trading market for the relevant securities, financial instruments or other assets. Private capital, equity, credit and other assets and their prices may be assessed infrequently, may not be priced on a secondary market, and shall not be relied upon as an explicit or implicit valuation of a particular instrument. Any reliance on fair value estimates and non-market inputs introduces potential biases and subjectivity. Internal Rate of Return metrics are not fully representative without full disclosure of fund cash flows, assumptions, and time horizons.

The Information does not constitute, and must not be relied upon as, investment advice, credit ratings, or proxy advisory or voting services. None of the Information Providers, their products or services, are fiduciaries or make any recommendation, endorsement, or approval of any investment decision or asset allocation. Likewise, the Information does not represent an offer to sell, a solicitation to buy, or an endorsement of any security, financial product, instrument, investment vehicle, or trading strategy, whether or not linked to or in any way based on any MSCI index, rating, subcomponent, or other Information (collectively, "Linked Investments").The Information should not be relied on and is not a substitute for the skill, judgment and experience of any user when making investment and other business decisions. MSCI is not responsible for any user's compliance with applicable laws and regulations. All Information is impersonal, not tailored to the needs of any person, entity or group of persons, not objectively verifiable in every respect, and may not be based on information that is important to any user.

It is not possible to invest in an index. Exposure to an asset class or trading strategy or other category represented by an index is only available through third party investable instruments (if any) based on that index. MSCI makes no assurance that any Linked Investments will accurately track index performance or provide positive investment returns. Index returns do not represent results of actual trading of investible assets/securities. MSCI maintains and calculates indexes but does not manage assets. The calculation of indexes and index returns may deviate from the stated methodology. Index returns do not reflect payment of any sales charges or fees an investor may pay to purchase securities underlying the index or Linked Investments. The imposition of these fees and charges would cause the performance of a Linked Investment to be different than the MSCI index performance.

Information provided by MSCI Solutions LLC, MSCI Solutions (UK) Limited, MSCI Solutions (Deutschland) GmbH and certain other related entities ("MSCI Solutions"), including materials utilized in MSCI sustainability and climate products, have not been submitted to, nor received approval from any regulatory body. MSCI sustainability and climate offerings, research and data are produced by, and ratings are solely the opinion of MSCI Solutions. For regulatory disclosures mandated under the EU ESG Rating Activities Regulation (Regulation (EU) 2024/3005), please visit www.msci.com/legal/sustainability-and-climate-resources-and-disclosures for methodology and organizational disclosures and https://one.msci.com for rating level disclosures. Other MSCI products and services may utilize information from MSCI Solutions, Barra LLC or other affiliates. More information can be found in the relevant methodologies on www.msci.com. MSCI Indexes are administered by MSCI Limited (UK) and MSCI Deutschland GmbH. No regulated use of any MSCI private real assets indexes in any jurisdiction is permitted without MSCI's express written authorization. The process for applying for MSCI's express written authorization can be found at: https://www.msci.com/index-regulation.

MSCI receives compensation in connection with licensing its indexes and other Information to third parties. MSCI Inc.'s revenue includes fees based on assets in Linked Investments. Information can be found in MSCI Inc.'s company filings on the Investor Relations section of msci.com. Issuers mentioned in MSCI Solutions materials or their affiliates may purchase research or other products or services from one or more MSCI affiliates, manage financial products such as mutual funds or ETFs rated by MSCI Solutions or its affiliates or are based on MSCI Indexes. Constituents of MSCI equity indexes are listed companies, which are included in or excluded from the indexes according to the application of the relevant index methodologies. Constituents in MSCI Inc. equity indexes may include MSCI Inc., clients of MSCI or suppliers to MSCI. MSCI Solutions has taken steps to mitigate potential conflicts of interest and safeguard the integrity and independence of its research and ratings.

MIFID2/MIFIR notice: MSCI Solutions does not distribute or act as an intermediary for financial instruments or structured deposits, nor does it deal on its own account, provide execution services for others or manage client accounts. No MSCI product or service supports, promotes or is intended to support or promote any such activity. MSCI Solutions is an independent provider of sustainability and climate data. All use of indicative prices for carbon credits must comply with any rules specified by MSCI. All transactions in carbon credits must be traded "over-the-counter" (i.e. not on a regulated market, trading venue or platform that performs a similar function to a trading venue) and result in physical delivery of the carbon credits.

You may not remove, alter, or obscure any attribution to MSCI or notices or disclaimers that apply to the Information. MSCI, Barra, RiskMetrics, and other MSCI brands and product names are the trademarks, service marks, or registered trademarks of MSCI or its subsidiaries in the United States and other jurisdictions. The Global Industry Classification Standard (GICS) was developed by and is the exclusive property of MSCI and S&P Dow Jones Indices. "Global Industry Classification Standard (GICS)" is a service mark of MSCI and S&P Dow Jones Indices. Terms such as including, includes, for example, such as and similar terms used herein are without limitation.

MSCI and its Information Providers may use automated technologies and artificial intelligence to help generate content and output incorporated in the Information. Content generated using such technologies may contain errors or inaccuracies.

Privacy notice: For information about how MSCI collects and uses personal data, please refer to our Privacy Notice at: https://www.msci.com/privacy-pledge. For copyright infringement claims contact us at dmca@msci.com. This notice is governed by the laws of the State of New York without regard to conflict of laws principles.

© 2026 MSCI Inc. All rights reserved. Please refer to the disclaimer at the end of this document.