

# MSCI High Dividend Yield Low Carbon SRI Screened Select Indexes Methodology

November 2024



# **Contents**

1	Int	troduction	3
2	Ind	dex Construction Methodology	4
	2.1	Applicable Universe	4
	2.2	Eligible Universe	4
	2.2	.1. Values and Climate Change-Based Exclusions	5
	2.3	Security Selection and Weighting	5
	2.4	Determining the Optimized Index	8
3	Ma	aintaining the Indexes	9
	3.1	Semi-Annual Index Reviews	9
	3.2	Ongoing Event Related Changes	9
4	M:	SCI ESG Research	11
	4.1	MSCI ESG Ratings	11
	4.2	MSCI ESG Controversies	11
	4.3	MSCI ESG Business Involvement Screening Research	11
	4.4	MSCI Climate Change Metrics	11
A	ppen	dix I: Values and Climate Change-based Exclusion Criteria	13
Α	ppen	dix II: Calculation of Target Metrics	17
Α	ppen	dix III: Barra Equity Model Used in The Optimization	20
A	ppen	dix IV: New release of Barra® Equity Model or Barra® Optimizer	21
A	ppen	dix V: The Parent Index and the Base Currency for Optimization	า 22
Α	ppen	dix VI: Methodology Set	23
A	ppen	dix VII: Changes to this Document	24



### 1 Introduction

The MSCI High Dividend Yield Low Carbon SRI Screened Select Indexes (herein, the 'Indexes')<sup>1</sup> are designed to represent the performance of a strategy that seeks systematic integration of environmental, social and governance (ESG) norms and maximizes its exposure to the Dividend Yield factor.

The Indexes are constructed by selecting constituents of a market capitalization weighted index (herein, the 'Parent Index') and applying an optimization process that aims to maximize the exposure to the Dividend Yield factor, limit the Tracking Error relative to the Parent Index, reduce the carbon-equivalent exposure to CO2 and other Green House Gases (GHG), reduce the exposure to active fossil fuel sector and achieve an industry-adjusted ESG score that is at least equal to that of the Parent Index<sup>2</sup>.

MSCI.COM | PAGE 3 OF 26

<sup>&</sup>lt;sup>1</sup>The Indexes are governed by a set of methodology and policy documents ("Methodology Set"), including the present index methodology document. The Methodology Set for the Indexes can be accessed from MSCI's webpage <a href="https://www.msci.com/index-methodology">https://www.msci.com/index-methodology</a> in the section 'Search Methodology by Index Name or Index Code.

The Methodology Set includes a document 'ESG Factors in Methodology' that contains the list of environmental, social, and governance factors considered, and how they are applied in the methodology (e.g., selection, weighting or exclusion). Please refer to Appendix VI for more details.

<sup>&</sup>lt;sup>2</sup> Please refer to Appendix V for more details.



#### **Index Construction Methodology** 2

The Indexes use company ratings and research provided by MSCI ESG Research<sup>3</sup> to determine eligibility for index construction.

Constructing the MSCI High Dividend Yield Low Carbon SRI Screened Select Indexes involve the following steps:

- Defining the Parent Index
- Defining the exclusion criteria
- Defining the security selection and weighting
- Determining the optimized index

The steps mentioned above are defined in detail in the subsequent sections.

#### 2.1 APPLICABLE UNIVERSE

The Applicable Universe of the Indexes includes all the constituents of their respective Parent Index. For further details regarding the Parent Index, kindly refer to Appendix V.

#### 2.2 **ELIGIBLE UNIVERSE**

The Eligible Universe comprises of all securities from the Applicable Universe that are excluded based on the below criteria:

- Companies assessed as having involvement in ESG controversies that are classified as Red Flags (MSCI ESG Controversy Score of 0). A Red Flag indicates an ongoing, Very Severe ESG controversy implicating a company directly through its actions, products, or operations.
- Companies assessed as having involvement in environmental controversies that are classified as Red (MSCI Environmental Controversy Score of 0) or Orange Flags (score of 1).
  - o A Red Flag indicates an ongoing, Very Severe ESG controversy implicating a company directly through its actions, products, or operations.
  - o An Orange Flag indicates an ongoing Severe ESG controversy implicating a company directly, or a Very Severe ESG controversy that is either partially resolved or indirectly attributed to the company's actions, products, or operations.
- Securities with an ESG Rating of 'CCC'
- Securities that breach any of the values and climate change-based exclusions criteria detailed in Section 2.2.1.

MSCI.COM | PAGE 4 OF 26

<sup>3</sup> See section 4 for further information regarding ESG and climate data used in the Indexes that MSCI Limited and MSCI Deutschland GmbH source from MSCI ESG Research LLC, a separate subsidiary of MSCI Inc. MSCI ESG Research 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.



#### Note on Unrated Securities or Securities with Missing Coverage:

Companies that are not assessed on MSCI ESG Research's ESG Controversies are excluded from the Final Universe. Companies that are not assessed on MSCI ESG Research's ESG Ratings are excluded from the final universe.

#### 2.2.1. VALUES AND CLIMATE CHANGE-BASED EXCLUSIONS

Companies that are involved in specific businesses, which are associated with negative environmental and/or social impact are ineligible for inclusion in the Index. The Indexes use MSCI ESG Business Involvement Screening Research and MSCI Climate Change Metrics to identify companies that are involved in the following business activities. Please refer to Appendix I for more details on these criteria.

- Controversial Weapons
- Civilian Firearms
- Nuclear Weapons
- Tobacco
- Adult Entertainment
- Alcohol
- Conventional Weapons
- Gambling
- Genetically Modified Organisms
- Nuclear Power
- Fossil Fuel Reserves Ownership
- Fossil Fuel Extraction
- Power Generation
- Oil and Gas

#### 2.3 SECURITY SELECTION AND WEIGHTING

Securities in the Eligible Universe are selected and weighted following an optimization-based approach described below:

At each Semi-Annual Index Review, the Indexes are constructed using an optimization process that aims to maximize the Dividend Yield score while controlling the ex-ante Tracking Error relative to the Parent Index at the time of rebalancing, subject to the following constraints:

- 1. Climate and other environmental or social objectives constraints detailed in Table 1
- 2. Diversification objectives constraints detailed in Table 2



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

Table 1: Constraints imposed to meet the climate and other ESG objectives

No.	Climate and Other ESG Objectives	
1.	Minimum reduction in Greenhouse Gas (GHG) Intensity relative to EVIC (Scope 1+2+3 <sup>4</sup> ) relative to the Parent Index	30%
2.	Minimum reduction in GHG Intensity relative to Sales (Scope 1+2+3 <sup>5</sup> ) relative to the Parent Index	30%
3.	Minimum reduction in Fossil Fuel exposure <sup>6</sup> relative to the Parent Index	50%
4.	Minimum reduction in Water Emissions Intensity relative to EVIC relative to Parent Index <sup>7</sup>	>= 0%
5.	Minimum reduction in Hazardous Waste Intensity relative to EVIC relative to Parent Index <sup>8</sup>	>= 0%
6.	Minimum increase in weighted average ESG Trend Score <sup>9</sup> relative to Parent Index	>= 0%
7.	Maximum Weight in securities with an ESG Rating of 'BB' or 'B'	15%
8.	Minimum increase in weighted average ESG Score relative to Parent Index	>=0%

Table 2: Constraints imposed to meet the diversification objectives

No.	Diversification Objective	
1.	The Grossed-up Dividend Yield of the Index as a multiple of	>=1.3x
1.	Grossed-up Dividend Yield of the Parent Index	(soft constraint)
2.	The ex-ante Tracking Error of the Index, relative to the Parent	<= 5%
۷.	Index	<- 5%
3.	Constituent Active Weight relative to the Parent Index	+/- 3%

<sup>&</sup>lt;sup>4</sup> Prior to the May 2020 Index Review of the Indexes, the Weighted Average Carbon Emissions Intensity relative to EVIC has been calculated based on Scope 1+2 Emissions.

MSCI.COM | PAGE 6 OF 26

<sup>&</sup>lt;sup>5</sup> Prior to the May 2020 Index Review of the Indexes, the Weighted Average Carbon Emissions Intensity relative to sales has been calculated based on Scope 1+2 Emissions.

<sup>&</sup>lt;sup>6</sup> Company's exposure to fossil fuels related activities, including extraction, processing, storage and transportation of petroleum products, natural gas, and thermal and metallurgical coal. This data point is used in index construction from March 2021 onwards.

<sup>&</sup>lt;sup>7</sup> Minimum Reduction in Water Emissions Intensity constraint is effective from May 2021 Index Review.

<sup>&</sup>lt;sup>8</sup> Minimum Reduction in Hazardous Waste Intensity constraint is effective from May 2021 Index Review.

<sup>&</sup>lt;sup>9</sup> The ESG Rating Trend indicates the rating change from previous to current in terms of the number of rating notches downgraded or upgraded. For example; +3 = three notch upgrade, -2 = two notch downgrade, 0 = maintain, and blank = new rating.



No.	Diversification Objective	
4.	Security Weight as a multiple of its weight in the Parent Index	<= 10x
5.	Active Sector Weights relative to the Parent Index <sup>10</sup>	+/-5%
6.	Country Weight as a multiple of its weight in the Parent Index (for country weight <= 2.5% in the Parent Index)	<= 3x
7.	Active Country Weights relative to the Parent Index (for country weight > 2.5% in the Parent Index)	+/-5%
8.	The exposure of the Index to the Barra style factors (Beta and Residual Volatilty) will be restricted relative to the Parent Index (measured in Standard Deviations)	<=0
9.	The exposure of the Index to the Barra style factors (Earnings Quality, Investment Quality, and Profitability) will be restricted relative to the Parent Index (measured in Standard Deviations)	>=0.25
10.	The exposure of the Index to the Barra style factors (Earnings Variability and Leverage) will be restricted relative to the Parent Index (measured in Standard Deviations)	<=-0.25
11.	The exposure of the Index to the Barra style factors (Long-Term Reversal, Book-to-Price, Earnings Yield, Mid Capitalization, Size, Momentum, Growth and Liquidity) will be restricted relative to the Parent Index (measured in Standard Deviations)	+/- 0.25
12.	The minimum weight of an index constituent <sup>11</sup>	0.01%
13.	One Way Turnover	<= 20%
14.	Common Factor Risk Aversion	0.0015
15.	Specific Risk Aversion	0.015

During the Semi-Annual 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 2% up to 30%
- Relax the security weight multiple constraint in steps of 2x to 20x
- Relax the maximum weight of ESG Rating of 'B' and 'BB' securities constraint in steps of 1% to 20%
- The one-way index turnover constraint, the security weight multiple constraint and the maximum weight of ESG Rating of 'B' and 'BB' securities constraint are alternately relaxed until a feasible solution is achieved.

<sup>&</sup>lt;sup>10</sup> The Energy GICS Sector is kept unconstrained in the Indexes starting from November 2024 Index Review.

<sup>11</sup> The weights of securities below 0.01% after the optimization process are removed and the weight of removed securities are redistributed in proportion of optimized weights in the remaining securities



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

#### 2.4 DETERMINING THE OPTIMIZED INDEX

The Indexes are constructed using the Barra Open Optimizer in combination with the relevant Barra Equity Model. The optimization uses the universe of eligible securities and the specified optimization objectives and constraints to determine the constituents of and the weights of constituents in the Indexes. The optimization is performed from a base currency perspective and does not allow short selling of securities. The default currency is the US Dollar.

Please refer to Appendix III and IV for more details.



## 3 Maintaining the Indexes

#### 3.1 SEMI-ANNUAL INDEX REVIEWS

The MSCI Indexes are rebalanced on a semi-annual basis, usually as of the close of the last business day of May and November, coinciding with the May and November Index Reviews of the MSCI Global Investable Market Indexes. Barra Equity Model data as of the day before the rebalancing day is used.

In general, MSCI uses MSCI ESG Research data<sup>12</sup> (including MSCI ESG Ratings, MSCI ESG Controversies, MSCI Business Involvement Screening Research and MSCI Climate-change metrics) as of the end of the month preceding the Index Reviews for the rebalancing of the Index. For some securities, such data may not be published by MSCI ESG Research by the end of the month preceding the Index Review. For such securities, MSCI will use ESG data published after the end of month, when available, for the rebalancing of the Index.

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

#### 3.2 ONGOING EVENT RELATED CHANGES

The general treatment of corporate events in the Indexes aim 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. 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 Indexes, the changes made to the Parent Index during intermediate Index Reviews will be neutralized in the Indexes.

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

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

-

<sup>&</sup>lt;sup>12</sup> See section 4 for details of data sourced from MSCI ESG Research used in the Indexes.



#### 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.

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.

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: <a href="https://www.msci.com/index-methodology">https://www.msci.com/index-methodology</a>.



## 4 MSCI ESG Research

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

#### 4.1 MSCI ESG RATINGS

MSCI ESG Ratings aim to measure entities' management of environmental, social and governance risks and opportunities. MSCI ESG Ratings use a weighted average key issue calculation that is normalized by industry to arrive at an industry-adjusted ESG score (0-10), which is then translated to a seven-point scale from 'AAA' to 'CCC', indicating how an entity manages relevant key issues relative to industry peers.

The MSCI ESG Ratings methodology can be found at: <a href="https://www.msci.com/legal/disclosures/esg-disclosures">https://www.msci.com/legal/disclosures/esg-disclosures</a>.

#### 4.2 MSCI ESG CONTROVERSIES

MSCI ESG 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 ESG 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 ESG Controversies Score falls on a 0-10 scale, with "0" being the most severe controversy.

The MSCI ESG Controversies methodology can be found at: <a href="https://www.msci.com/legal/disclosures/esg-disclosures">https://www.msci.com/legal/disclosures/esg-disclosures</a>.

#### 4.3 MSCI ESG BUSINESS INVOLVEMENT SCREENING RESEARCH

MSCI ESG 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: <a href="https://www.msci.com/legal/disclosures/esg-disclosures">https://www.msci.com/legal/disclosures/esg-disclosures</a>.

#### 4.4 MSCI CLIMATE CHANGE METRICS

MSCI Climate Change Metrics provide climate data & tools to support institutional investors seeking to integrate climate risk & 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: <a href="https://www.msci.com/legal/disclosures/climate-disclosures">https://www.msci.com/legal/disclosures/climate-disclosures</a>.



## **Appendix I: Values and Climate Change-based Exclusion Criteria**

Companies whose activities meet the following business activities-based criteria, as evaluated by MSCI ESG Research, are excluded from the Indexes.

#### "Most Restrictive" screen applied

#### Controversial Weapons

 All companies with any tie to Controversial Weapons (cluster munitions, landmines, depleted uranium weapons, biological/chemical weapons, blinding lasers, non-detectable fragments and incendiary weapons), as defined by the methodology of the MSCI Global Ex-Controversial Weapons Indexes available at <a href="https://www.msci.com/index-methodology">https://www.msci.com/index-methodology</a>.

#### "Highly Restrictive" screen applied

#### Civilian Firearms

- All companies classified as "Producer" of firearms and small arms ammunitions for civilian markets. It does not include companies that cater to the military, government, and law enforcement markets.
- All companies deriving 5% or more aggregate revenue from the production and distribution (wholesale or retail) of firearms or small arms ammunition intended for civilian use.

#### Nuclear Weapons

- All companies that manufacture nuclear warheads and/or whole nuclear missiles.
- All companies that manufacture components that were developed or are significantly modified for exclusive use in nuclear weapons (warheads and missiles).
- All companies that manufacture or assemble delivery platforms that were developed or significantly modified for the exclusive delivery of nuclear weapons.
- o All companies that provide auxiliary services related to nuclear weapons.
- All companies that manufacture components that were not developed or not significantly modified for exclusive use in nuclear weapons (warheads and missiles) but can be used in nuclear weapons.
- All companies that manufacture or assemble delivery platforms that were not developed or not significantly modified for the exclusive delivery of nuclear weapons but have the capability to deliver nuclear weapons.
- All companies that manufacture components for nuclear-exclusive delivery platforms.



#### Tobacco

- All companies classified as a "Producer".
- All companies deriving 5% or more aggregate revenue from the production, distribution, retail, supply and licensing of tobacco-related products.

#### "Moderately Restrictive" screen applied

#### Adult Entertainment

- o All companies deriving 5% or more revenue from the production of adult entertainment materials.
- All companies deriving 15% or more aggregate revenue from the production, distribution and retail
  of adult entertainment materials.

#### Alcohol

- o All companies deriving 5% or more revenue from the production of alcohol-related products.
- All companies deriving 15% or more aggregate revenue from the production, distribution, retail and supply of alcohol-related products.

#### Conventional Weapons (applicable to all Parent Indexes except MSCI EMU Index)

- All companies deriving 5% or more revenue from the production of conventional weapons and components.
- All companies deriving 5% or more aggregate revenue from weapons systems, components, and support systems and services.

#### Conventional Weapons (applicable to MSCI EMU Index only)

- All companies deriving any revenue from the production of conventional weapons and components.
- All companies deriving any aggregate revenue from weapons systems, components, and support systems and services.

#### Gambling

- All companies deriving 5% or more revenue from ownership of operation of gambling-related business activities.
- o All companies deriving 15% or more aggregate revenue from gambling-related business activities.



#### Genetically Modified Organisms (GMO)

o All companies deriving 5% or more revenue from activities like genetically modifying plants, such as seeds and crops, and other organisms intended for agricultural use or human consumption.

#### Nuclear Power

- o All companies generating 5% or more of their total electricity from nuclear power in a given year.
- All companies that have 5% or more of installed capacity attributed to nuclear sources in a given fiscal year.
- o All companies deriving 15% or more aggregate revenue from nuclear power activities.

#### No specific restrictiveness level applied

#### Fossil Fuel Reserves Ownership

 All companies with evidence of owning proven & probable coal reserves and/or proven oil and natural gas reserves used for energy purposes, as defined by the methodology of the MSCI Global Ex Fossil Fuels Indexes available at <a href="https://www.msci.com/index-methodology">https://www.msci.com/index-methodology</a>.

#### Fossil Fuel Extraction

- All companies deriving any revenue (either reported or estimated) from thermal coal mining or unconventional oil and gas extraction.
- Thermal Coal Mining: Revenue from the mining of thermal coal (including lignite, bituminous, anthracite and steam coal) and its sale to external parties. It does not cover 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.
- Unconventional Oil & Gas Extraction: Revenue from oil sands, oil shale (kerogen-rich deposits), shale gas, shale oil, coal seam gas, and coal bed methane. It does not cover all types of conventional oil and gas production including Arctic onshore/offshore, deep water, shallow water and other onshore/offshore.

#### Power Generation

 All companies deriving 5% or more revenue (either reported or estimated) from thermal coal-based power generation.



 All companies deriving 50% or more revenue from thermal coal-based power generation, liquid fuel-based power generation and natural gas-based power generation<sup>13</sup>.

#### Oil and Gas

All companies deriving 10% or more revenue from oil and gas related activities, including distribution / retail, equipment and services, extraction and production, pipelines and transportation and refining but excluding biofuel production and sales and trading activities.

MSCI.COM | PAGE 16 OF 26

<sup>&</sup>lt;sup>13</sup> As per <a href="https://www.ipcc.ch/site/assets/uploads/2018/02/ipcc\_wg3\_ar5\_chapter7.pdf">https://www.ipcc.ch/site/assets/uploads/2018/02/ipcc\_wg3\_ar5\_chapter7.pdf</a>, thermal coal based power generation, liquid fuel based power generation and natural gas based power generation have median lifecycle emissions exceeding 100gC02/kWh.



# **Appendix II: Calculation of Target Metrics**

Calculation of GHG Intensity relative to EVIC

For Parent Index constituents where Scope 1+2+3 Emissions Intensity is not available, the average Scope 1+2+3 Emissions Intensity relative to EVIC of all the constituents of the MSCI ACWI in the same GICS®14 Industry Group in which the constituent belongs to is used.

Security Level GHG Intensity relative to EVIC =

$$\frac{Scope\ 1 + 2 + 3\ Carbon\ Emissions}{Enterprise\ Value + Cash(in\ M\$)}$$

Weighted Average GHG Intensity relative to EVIC of the Parent Index =  $\sum$  (Weight in Parent Index \* Security Level GHG Intensity relative to EVIC)

Weighted Average GHG Intensity relative to EVIC of the Optimized Index =

$$\sum (\textit{Index Weight} * \textit{Security Level GHG Intensity relative to EVIC})$$

Calculation of GHG Intensity relative to Sales

For Parent Index constituents where the Scope 1+2+3 Emissions Intensity is not available, the average Scope 1+2+3 Emissions Intensity relative to Sales of all the constituents of the MSCI ACWI in the same GICS Industry Group in which the constituent belongs to is used.

Security Level GHG Intensity relative to Sales =

$$\frac{Scope\ 1 + 2 + 3\ Carbon\ Emissions}{Sales\ (in\ M\$)}$$

Weighted Average GHG Intensity relative to Sales of the Parent Index =  $\sum$  (Weight in Parent Index \* Security Level GHG Intensity relative to Sales)

Weighted Average GHG Intensity relative to Sales of the Optimized Index =

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

<sup>&</sup>lt;sup>14</sup> GICS, the Global Industry Classification Standard, jointly developed by MSCI Inc. and S&P Global



**Calculation of Water Emissions Intensity relative to EVIC** 

Security Level Water Emissions Intensity =

Water Emissions (metric tons)
Enterprise Value + Cash(in M\$)

Weighted Average Water Emissions Intensity of the Parent Index =

 $\frac{\sum (Weight \ in \ Parent \ Index_i * Security \ Level \ Water \ Emissions \ Intensity)}{\sum_{i=1}^{n} Weight \ in \ Parent \ Index_i}$ 

Weighted Average Water Emissions Intensity of the Optimized Index =

 $\frac{\sum (Index\ Weight_i*Security\ Level\ Water\ Emission\ Intensity)}{\sum_{i=1}^n Index\ Weight_i}$ 

Where:

i = index security with Water Emissions and EVIC available.

**Calculation of Hazardous Water Intensity relative to EVIC** 

Security Level Hazardous Waste Intensity =

Hazardous waste (metric tons)
Enterprise Value + Cash(in M\$)

Weighted Average Hazardous Waste Intensity of the Parent Index =

 $\frac{\sum (Weight\ in\ Parent\ Index_i*Security\ Level\ Hazardous\ Waste\ Intensity)}{\sum_{i=1}^n Weight\ in\ Parent\ Index_i}$ 

Weighted Average Hazardous Waste Intensity of the Optimized Index =

 $\frac{\sum (Index\ Weight_i*Security\ Level\ Hazrdous\ Waste\ Intensity)}{\sum_{i=1}^n Index\ Weight_i}$ 

Where:

i = index security with all Hazardous Waste and EVIC available.

**Calculation of Weighted Average ESG Trend Score** 



Weighted Average ESG Trend Score of the Index =

 $\frac{\sum (Index\ Weight_i*ESG\ Trend\ Score\ of\ Security)}{\sum_{i=1}^{n}Index\ Weight_i}$ 

Where:

*i* = index security with ESG Trend Score available.

**Calculation of Weighted Average ESG Score** 

Weighted Average ESG Score of the Index =

 $\frac{\sum (Index\ Weight_i*ESG\ Score\ of\ Security)}{\sum_{i=1}^{n}Index\ Weight_i}$ 

Where:

i = index security with ESG Score available.



# **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).



# 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.



# **Appendix V: The Parent Index and the Base Currency for Optimization**

Table 3: Indexes and their corresponding Parent Indexes

No.	Index Name	Parent Index	Base Currency for Optimization
1.	MSCI World High Dividend Yield Low Carbon SRI Screened Select Index	MSCI World Index	USD
2.	MSCI USA High Dividend Yield Low Carbon SRI Screened Select Index	MSCI USA Index	USD
3.	MSCI Europe High Dividend Yield Low Carbon SRI Screened Select Index	MSCI Europe Index	USD
4.	MSCI EMU High Dividend Yield Low Carbon SRI Screened Select Index	MSCI EMU Index	USD



## **Appendix VI: Methodology Set**

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

- Description of methodology set www.msci.com/index/methodology/latest/ReadMe
- MSCI Corporate Events Methodology www.msci.com/index/methodology/latest/CE
- MSCI Fundamental Data Methodology www.msci.com/index/methodology/latest/FundData
- MSCI Index Calculation Methodology www.msci.com/index/methodology/latest/IndexCalc
- MSCI Index Glossary of Terms www.msci.com/index/methodology/latest/IndexGlossary
- MSCI Index Policies www.msci.com/index/methodology/latest/IndexPolicy
- MSCI Global Industry Classification Standard (GICS) Methodology www.msci.com/index/methodology/latest/GICS
- MSCI Global Investable Market Indexes Methodology <a href="https://www.msci.com/index/methodology/latest/GIMI">www.msci.com/index/methodology/latest/GIMI</a>
- MSCI Global ex Controversial Weapons Indexes Methodology http://www.msci.com/index/methodology/latest/XCW
- MSCI Global Fossil Fuels Exclusion Indexes Methodology http://www.msci.com/index/methodology/latest/XFF
- ESG Factors In Methodology\*

The Methodology Set for the Indexes can also be accessed from MSCI's webpage <a href="https://www.msci.com/index-methodology">https://www.msci.com/index-methodology</a> 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.

2024 MSCI Inc. All rights reserved. MSCI.COM | PAGE 23 OF 26



# **Appendix VII: Changes to this Document**

The following sections have been modified since November 2024:

- Section 2: Added footnote to reflect the removal of GICS Energy Sector constraint from the Indexes.
- Appendix I: Updated "Power Generation" and "Oil and Gas" value-based screening criterion.
- Appendix VI: The details of the Methodology Set for the Indexes were added.

© 2024 MSCI Inc. All rights reserved.

MSCI.COM | PAGE 24 OF 26



#### Contact us

#### msci.com/contact-us

#### **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 + 65 67011177 Singapore Australia +612 9033 9333 Taiwan 008 0112 7513 \* Thailand 0018 0015 6207 7181 \* Japan +81345790333

#### **About MSCI**

MSCI is a leading provider of critical decision support tools and services for the global investment community. With over 50 years of expertise in research, data and technology, we power better investment decisions by enabling clients to understand and analyze key drivers of risk and return and confidently build more effective portfolios. We create industry-leading researchenhanced solutions that clients use to gain insight into and improve transparency across the investment process.

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.

MSCI.COM | PAGE 25 OF 26

\* toll-free



#### Notice and disclaimer

This document is research for informational purposes only and is intended for institutional professionals with the analytical resources and tools necessary to interpret any performance information. Nothing herein is intended to promote or recommend any product, tool or service.

This document and all of the information contained in it, including without limitation all text, data, graphs, charts (collectively, the "Information") is the property of MSCI Inc. or its subsidiaries (collectively, "MSCI"), or MSCI's licensors, direct or indirect suppliers or any third party involved in making or compiling any Information (collectively, with MSCI, the "Information Providers") and is provided for informational purposes only. The Information may not be modified, reverse-engineered, reproduced or redisseminated in whole or in part without prior written permission from MSCI. All rights in the Information are reserved by MSCI and/or its Information Providers.

The Information may not be used to create derivative works or to verify or correct other data or information. For example (but without limitation), the Information may not be used to create indexes, databases, risk models, analytics, software, or in connection with the issuing, offering, sponsoring, managing or marketing of any securities, portfolios, financial products or other investment vehicles utilizing or based on, linked to, tracking or otherwise derived from the Information or any other MSCI data, information, products or services.

The user of the Information assumes the entire risk of any use it may make or permit 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, WITHOUT LIMITATION, ANY IMPLIED WARRANTIES OF ORIGINALITY, ACCURACY, TIMELINESS, 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 any Information Provider have any liability regarding any of the Information 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, including without limitation (as applicable), any liability for death or personal injury to the extent that such injury results from the negligence or willful default of itself, its servants, agents or sub-contractors.

Information containing any historical information, data or analysis should not be taken as an indication or guarantee of any future performance, analysis, forecast or prediction. Past performance does not guarantee future results.

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. Neither these Signals nor any description of historical data are intended to provide investment advice or a recommendation to make (or refrain from making) any investment decision or asset allocation and should not be relied upon as such. Signals are inherently backward-looking because of their use of historical data, and they are not intended to predict the future. The relevance, correlations and accuracy of Signals frequently will change materially.

The Information should not be relied on and is not a substitute for the skill, judgment and experience of the user, its management, employees, advisors and/or clients when making investment and other business decisions. All Information is impersonal and not tailored to the needs of any person, entity or group of persons.

None of the Information constitutes an offer to sell (or a solicitation of an offer to buy), any security, financial product or other investment vehicle or any trading strategy.

It is not possible to invest directly 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 does not issue, sponsor, endorse, market, offer, review or otherwise express any opinion regarding any fund, ETF, derivative or other security, investment, financial product or trading strategy that is based on, linked to or seeks to provide an investment return related to the performance of any MSCI index (collectively, "Index Linked Investments"). MSCI makes no assurance that any Index Linked Investments will accurately track index performance or provide positive investment returns. MSCI Inc. is not an investment adviser or fiduciary and MSCI makes no representation regarding the advisability of investing in any Index Linked Investments.

Index returns do not represent the results of actual trading of investible assets/securities. MSCI maintains and calculates indexes, but does not manage actual 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 the securities underlying the index or Index Linked Investments. The imposition of these fees and charges would cause the performance of an Index Linked Investment to be different than the MSCI index performance.

The Information may contain back tested data. Back-tested performance 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.

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. Accordingly, constituents in MSCI equity indexes may include MSCI Inc., clients of MSCI or suppliers to MSCI. Inclusion of a security within an MSCI index is not a recommendation by MSCI to buy, sell, or hold such security, nor is it considered to be investment advice.

Data and information produced by various affiliates of MSCI Inc., including MSCI ESG Research LLC and Barra LLC, may be used in calculating certain MSCI indexes. More information can be found in the relevant index methodologies on www.msci.com.

MSCI receives compensation in connection with licensing its indexes to third parties. MSCI Inc.'s revenue includes fees based on assets in Index Linked Investments. Information can be found in MSCI Inc.'s company filings on the Investor Relations section of msci.com.

MSCI ESG Research LLC is a Registered Investment Adviser under the Investment Advisers Act of 1940 and a subsidiary of MSCI Inc. Neither MSCI nor any of its products or services recommends, endorses, approves or otherwise expresses any opinion regarding any issuer, securities, financial products or instruments or trading strategies and MSCI's products or services are not a recommendation to make (or refrain from making) any kind of investment decision and may not be relied on as such, provided that applicable products or services from MSCI ESG Research materials, including materials utilized in any MSCI ESG Indexes or other products, have not been submitted to, nor received approval from, the United States Securities and Exchange Commission or any other regulatory body. MSCI ESG and climate ratings, research and data are produced by MSCI ESG Research LLC, a subsidiary of MSCI Inc. MSCI ESG Indexes, Analytics and Real Estate are products of MSCI Inc. that utilize information from MSCI ESG Research LLC. MSCI Indexes are administered by MSCI Limited (UK) and MSCI Deutschland GmbH.

Please note that the issuers mentioned in MSCI ESG Research materials sometimes have commercial relationships with MSCI ESG Research and/or MSCI Inc. (collectively, "MSCI") and that these relationships create potential conflicts of interest. In some cases, the issuers or their affiliates purchase research or other products or services from one or more MSCI affiliates. In other cases, MSCI ESG Research rates financial products such as mutual funds or ETFs that are managed by MSCI's clients or their affiliates, or are based on MSCI Inc. Indexes. In addition, constituents in MSCI Inc. equity indexes include companies that subscribe to MSCI products or services. In some cases, MSCI clients pay fees based in whole or part on the assets they manage. MSCI ESG Research has taken a number of steps to mitigate potential conflicts of interest and safeguard the integrity and independence of its research and ratings. More information about these conflict mitigation measures is available in our Form ADV, available at https://adviserinfo.sec.gov/firm/summary/169222.

Any use of or access to products, services or information of MSCI requires a license from MSCI, MSCI, Barra, RiskMetrics, IPD 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 Global Market Intelligence. "Global Industry Classification Standard (GICS)" is a service mark of MSCI and S&P Global Market Intelligence.

MIFID2/MIFIR notice: MSCI ESG Research LLC 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 ESG Research product or service supports, promotes or is intended to support or promote any such activity. MSCI ESG Research is an independent provider of ESG data.

Privacy notice: For information about how MSCI collects and uses personal data, please refer to our Privacy Notice at <a href="https://www.msci.com/privacy-pledge">https://www.msci.com/privacy-pledge</a>.