

MSCI Resilient Future Indexes Methodology

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1 INTRODUCTION

The MSCI Resilient Future Indexes (the ‘Indexes’¹) aim to represent the performance of a set of companies that are associated with the development of new products and services focused on one or more of the following components:

- Clean Energy Solutions
 - Alternative Energy
 - Hydro-power Generation (>25MW)
 - Batteries and EV Value Chain
 - Smart Grids
 - Future Fuels and Technology
- Alternative Food & Agriculture
- Water Solutions
- Natural Capital Protection

¹ The Indexes are governed by a set of methodology and policy documents (“Methodology Set”), including the present index methodology document. Please refer to Appendix III for more details.

2 CONSTRUCTING THE MSCI RESILIENT FUTURE INDEXES

The Indexes are constructed by selecting securities from the underlying MSCI indexes (“Parent Indexes”²).

2.1 Eligible Universe

2.1.1 ESG-based Screening³

The Indexes use MSCI ESG Controversies, MSCI ESG Business Involvement Screening Research, MSCI Climate Change Metrics, and MSCI Impact Solutions’ SDG Alignment to apply a set of exclusions screens that aim to address headline risks and/or reduce negative impact from select business activities. The exclusions are based on the following criteria:

ESG Controversy-based Criteria

- ESG Controversies Score
- Environmental Controversies Score

Business Involvement-based Criteria

- Controversial Weapons
- Civilian Firearms
- Tobacco
- Thermal Coal Mining
- Thermal Coal Power Generation
- Unconventional Oil & Gas Extraction
- Arctic Oil & Gas Extraction
- Palm Oil

SDG Criteria

- SDG Net Alignment

See Appendix I for more details on these exclusions criteria.

2.1.2 Treatment of Unrated Companies

- Companies that are not assessed on MSCI ESG Research’s ESG Controversies or Environmental Controversies are excluded from the Eligible Universe.

² The use of some indexes as Parent Indexes may result in a low number of constituents, which may affect replicability.

³ Please refer to Section 4 for further information regarding the ESG and climate data used in the Index that MSCI Limited sources 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. MSCI Limited is the benchmark administrator for the MSCI indexes.

- Companies that are not assessed on MSCI ESG Research’s SDG Alignment are not excluded from the Eligible Universe.

2.1.3 GICS^{®4} Sub-industry filter

Securities mapped to the following GICS sub-industry are excluded from the Eligible Universe.

No.	GICS Sector	GICS Sub-industry
1	Utilities	Water Utilities

2.2 Selected Universe

The Indexes are constructed by combining securities from the following components. Securities selected from each component are combined to form the Selected Universe⁵.

- **Alternative Energy:** Securities are selected if they have reported or estimated revenue of 25% or more from Alternative Energy
- This component aims to capture securities that are associated with products, services, or infrastructure projects supporting the development of renewable energy and alternative fuels, as defined by MSCI Sustainable Impact Metrics.
- **Hydro-power Generation (>25MW):** Securities are selected if they have reported or estimated revenue of 25% or more from Hydro-power Generation, as defined by MSCI Climate Change Metrics.
- **Batteries and EV Value Chain:** Securities are selected if their Batteries and EV Value Chain Relevance Score is $\geq 50\%$

This component aims to capture securities that are associated with the development of new products and services focused on the battery and electric vehicle value chain, as defined by the MSCI Thematic Relevance Score Methodology⁶. Business activities in scope include the following:

- Electro-chemical energy storage technologies,
 - Mining companies that produce metals used to manufacture batteries,
 - Electric vehicles (“EVs”), EV components and materials.
- **Smart Grids:** Securities are selected if their Smart Grids Relevance Score is $\geq 50\%$
- This component aims to capture securities that are associated with the development of new products and services focused on enabling two-way flow of data and electric power, as defined by the MSCI Thematic Relevance Score Methodology. Business activities in scope include the following:

⁴ GICS[®], the Global Industry Classification Standard, jointly developed by MSCI Inc. and S&P Global.

⁵ It is possible that one security is selected in more than one component. In this case, this security is in the Selected Universe with the weighing defined in Section 2.3.

⁶ For details of calculation of Relevance Scores, please refer to the MSCI Thematic Relevance Score Methodology document at <https://www.msci.com/index/methodology/latest/ThemRelevScore>

- Grid and energy management, including microgrids,
- Smart metering.

- **Future Fuels & Technology:** Securities are selected if their Future Fuel & Technology Relevance Score is $\geq 50\%$

This component aims to capture securities that are associated with the development of new products and services focused on future sources of energy and technologies for conduit industries, as defined by the MSCI Thematic Relevance Score Methodology. Business activities in scope include the following:

- Hydrogen fuel value chain,
- Concentrated Solar Power (CSP),
- Ground source heating.

- **Alternative Food & Agriculture:** Securities are selected if their Alternative Food & Agriculture Relevance Score $\geq 50\%$

This component aims to capture securities that are associated with the development of new products and services focused on improving the way food is produced and consumed, as defined by the MSCI Thematic Relevance Score Methodology. Business activities in scope include the following:

- Plant-based meat substitutes,
- Insect-based protein,
- Agricultural technology,
- Responsible farming.

- **Water Solutions:** Securities are selected if they either (1) have reported or estimated revenue of 25% or more from Sustainable Water, or (2) have a Water Business Segment Relevance Score⁷ of $\geq 50\%$ and has reported or estimated revenue of 5% or more from Sustainable Water

This component aims to capture securities that are associated with products, services, and projects that attempt to resolve water scarcity and water quality issues, categorized as Sustainable Water under MSCI Sustainable Impact Metrics; or companies associated with water-related business activities⁸, such as water supply, water treatment, and water related equipment.

- **Natural Capital Protection:** Securities are selected if they have reported or estimated revenue of 25% or more from Natural Capital Protection

This component aims to capture securities that are associated with products, services, or projects that support pollution prevention, waste minimization, or recycling as a means of

⁷ For details of this methodology, please refer to <https://www.msci.com/index/methodology/latest/ACWIWater>

⁸ This component captures similar business activities to the ACWI IMI Water Index but uses two of the four selection routes of the aforementioned index. In particular, the Index 1) selects securities using the Sustainable Water revenue and Business Segment Relevance Score routes, and 2) applies different thresholds. The index methodology can be found at <https://www.msci.com/index/methodology/latest/ACWIWater>.

alleviating the burden of unsustainable waste generation, as defined by MSCI Sustainable Impact Metrics.

Please refer to Appendix II for the details on the construction of the Thematic components, including the Relevance Score calculation, of the Batteries and EV Value Chain, Smart Grids, Future Fuels and Technology, Alternative Food & Agriculture components.

2.3 Weighting Scheme

2.3.1 Security Weighting

Securities included in the Indexes are weighted in proportion to their weight in the Parent Indexes. The weights are then normalized to 100%.

2.3.2 Issuer Capping

The maximum weight of any issuer in the Indexes is then capped at 5% in accordance with the MSCI Capped Indexes methodology⁹. The excess weight of the capped issuers is distributed among the remaining constituents in proportion of their existing weights in the Indexes¹⁰.

⁹ Please refer to the MSCI Capped Indexes methodology at <https://www.msci.com/index/methodology/latest/Capped>.

¹⁰ In the event when the Indexes have less than 20 issuers, the issuer capping will be relaxed in steps of 1% to the nearest 1%.

3 MAINTAINING THE MSCI RESILIENT FUTURE INDEXES

3.1 Semi-Annual Index Review

The Indexes are reviewed on a semi-annual basis, as of the close of the last business day of May and November, coinciding with the May and November Index Reviews of the Parent Indexes, and the changes are implemented at the end of May and November. In general, the pro forma indexes are announced nine business days before the effective date.

In general, MSCI uses MSCI ESG Research data (including MSCI Impact Solutions, MSCI ESG Ratings, MSCI ESG Controversies, MSCI ESG Business Involvement Screening Research, and MSCI Climate Change Metrics) as of the end of the month preceding the Index Reviews. 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. This approach aims to capture timely updates to ESG Ratings of the constituents and coincides with the rebalancing of the relevant MSCI Parent Indexes.

In addition, MSCI uses Relevance Score data as of two business days prior to the rebalancing date for the Semi-Annual Index Review.

3.2 Ongoing Event-Related Maintenance

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.

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 Indexes between Index Reviews. Parent Indexes deletions will be reflected simultaneously.

There are no deletions from the Indexes between Index Reviews on account of a security becoming ineligible because of reduced Component revenue or relevance score falling below the threshold, decrease in MSCI ESG Controversies Score, change in SDG Alignment assessment, and/or change in business involvement.

EVENT TYPE

EVENT DETAILS

New additions to the Parent Indexes

A new security added to the Parent Indexes (such as IPO and other early inclusions) will not be added to the indexes.

Spin-Offs

All securities created as a result of the spin-off of an existing Index constituent will not be added to the Indexes at the time of event implementation. Reevaluation for addition in the Indexes 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 Indexes.

If an existing Index constituent is acquired by a non-Index constituent, the existing constituent will be deleted from the Indexes and the acquiring non-constituent will not be added to the Indexes.

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 Indexes 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.

The MSCI Corporate Events methodology book is available at:

<https://www.msci.com/index-methodology>.

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 Impact Solutions, 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 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	<ol style="list-style-type: none"> Alternative energy Energy efficiency Green building
	Natural capital	<ol style="list-style-type: none"> Sustainable water Pollution prevention Sustainable agriculture
Social Impact	Basic needs	<ol style="list-style-type: none"> Nutrition Major Disease Treatment Sanitation Affordable Real Estate
	Empowerment	<ol style="list-style-type: none"> SME Finance Education Connectivity – Digital divide

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

More detailed taxonomy for each category can be found in Section 4.4 of the MSCI ACWI Sustainable Impact Index Methodology available at <https://www.msci.com/index-methodology>.

4.2 MSCI Impact Solutions: SDG Alignment

MSCI Impact Solutions’ SDG Alignment is designed to provide a holistic view of companies’ net contribution – both positive and negative – towards addressing each of the 17 UN Sustainable Development Goals (SDGs). SDG Alignment assessments and scores include analysis of companies’ operations, products and services, policies, and practices and their net contribution – positive and adverse – to addressing key global challenges.

The MSCI SDG Alignment framework provides 17 SDG Net Alignment scores and 17 SDG Net Alignment assessments (including Strongly Aligned, Aligned, Neutral, Misaligned and Strongly Misaligned) for each of the 17 global goals. In addition, the model offers assessments and scores for two dimensions, product alignment and operation alignment, for each company and for each of the 17 goals.

For more details on MSCI Impact Solutions including MSCI SDG Alignment, please refer to <https://www.msci.com/our-solutions/esg-investing/impact-solutions>.

4.3 MSCI ESG Controversies

MSCI ESG Controversies provides 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: <https://www.msci.com/esg-and-climate-methodologies>.

4.4 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.

For more details on MSCI ESG Business Involvement Screening Research, please refer to http://www.msci.com/resources/factsheets/MSCI_ESG_BISR.pdf.

4.5 MSCI Climate Change Metrics

MSCI Climate Change Metrics provides 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 <https://www.msci.com/climate-solutions>.

APPENDIX I: ESG EXCLUSION CRITERIA

Companies are excluded based on the following MSCI ESG Controversies, MSCI Business Involvement Screening Research, MSCI Climate Change Metrics, and MSCI SDG Alignment filters:

ESG CONTROVERSY-BASED CRITERIA

- **ESG Controversies Score**
 - All 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.
- **Environmental Controversies Score**
 - All companies assessed as having involvement in environmental controversies that are classified as Red Flags (MSCI Environmental Controversy Score of 0) or Orange Flags (score of 1)
 - A Red Flag indicates an ongoing, Very Severe ESG controversy implicating a company directly through its actions, products, or operations.
 - 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.

BUSINESS INVOLVEMENT-BASED CRITERIA

- **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 Ex-Controversial Weapons Indexes available at <https://www.msci.com/index-methodology>.
- **Civilian Firearms**
 - All companies classified as “Producer” of firearms and small arms ammunitions for civilian markets. It does not cover 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.

- **Tobacco**
 - All companies that manufacture tobacco products which include cigars, blunts, cigarettes, e-cigarettes, inhalers, kreteks, smokeless tobacco, snuff, snus, dissolvable and chewing tobacco. This category also covers companies that grow or process raw tobacco leaves.
 - All companies deriving 5% or more aggregate revenue from the production, distribution, retail, supply and licensing of tobacco-related products
- **Thermal Coal Mining**
 - All companies deriving 1% or more 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 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.
- **Thermal Coal Power Generation**
 - All companies deriving 5% or more revenue (either reported or estimated) from thermal coal-based power generation, except if they derive 50% or more aggregate revenue from Alternative Energy, Hydro-power Generation, Sustainable Water, and Natural Capital Protection.
- **Unconventional Oil & Gas Extraction**
 - All companies deriving 5% or more revenue (either reported or estimated) 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.
- **Arctic Oil & Gas Extraction**
 - All companies deriving 5% or more revenue (either reported or estimated) from arctic oil and arctic gas production. The definition of Arctic is geographical and includes production activities north of the 66.5 latitude. This covers offshore or onshore oil and gas production.
- **Palm Oil**
 - All companies deriving 5% or more aggregate revenue from the production or distribution of palm oil products

SDG CRITERIA

- **SDG Net Alignment**

- All companies that are assessed as Strongly Misaligned on their Net Alignment to any of the selected SDGs, in particular, SDG 6, 7, 9, 12, 13, 14, or 15¹¹

Notes on Unrated Securities or Securities with Missing Coverage:

- Companies that are not assessed on MSCI ESG Research’s ESG Controversies or Environmental Controversies are excluded from the Eligible Universe.
- Companies that are not assessed on MSCI ESG Research’s SDG Alignment are not excluded from the Eligible Universe.

¹¹ SDGs 6, 7, 9, 12, 13, 14, and 15 refer to seven of the 17 United Nations Sustainable Development Goals, as part of the 2030 Agenda for Sustainable Development that are specifically focused on environmental themes. SDG 6 aims to ensure availability and sustainable management of water and sanitation for all (<https://sdgs.un.org/goals/goal6>); SDG 7 aims to ensure access to affordable, reliable, sustainable and modern energy for all (<https://sdgs.un.org/goals/goal7>); SDG 9 aims to build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation (<https://sdgs.un.org/goals/goal9>); SDG 12 aims to ensure sustainable consumption and production patterns (<https://sdgs.un.org/goals/goal12>); SDG 13 aims to Take urgent action to combat climate change and its impacts (<https://sdgs.un.org/goals/goal13>); SDG 14 aims to conserve and sustainably use the oceans, seas and marine resources for sustainable development (<https://sdgs.un.org/goals/goal14>); and SDG 15 aims to protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss (<https://sdgs.un.org/goals/goal15>)

APPENDIX II: THEMATIC FRAMEWORK FOR CONSTRUCTING THE BATTERIES AND EV VALUE CHAIN, SMART GRIDS, FUTURE FUELS & TECHNOLOGY, ALTERNATIVE FOOD & AGRICULTURE COMPONENTS

Selection Rules for each thematic component

Securities from the Parent Indexes that have a Relevance Score of 50% or more are included in the thematic component. For details of calculation of Relevance Scores, please refer to the MSCI Thematic Relevance Score Methodology document¹². The business activities in scope of the theme are as defined in Section 2.2.

Further filtering is applied to each thematic component as detailed below.

GICS Sector and Sub-industry filter

Securities in the corresponding component mapped to the following GICS sub-industries are excluded from each thematic component.

Batteries and EV Value Chain Component

No	GICS Sector	GICS Sub-industry
1	Energy	<ul style="list-style-type: none"> Oil & Gas Equipment & Services Oil & Gas Refining & Marketing
2	Industrials	<ul style="list-style-type: none"> Marine Transportation Marine Ports & Services Heavy Electrical Equipment
3	Information Technology	<ul style="list-style-type: none"> Application Software Semiconductor Materials & Equipment
4	Communication Services	<ul style="list-style-type: none"> Advertising Broadcasting Cable & Satellite Publishing Movies & Entertainment Interactive Home Entertainment Interactive Media & Services
5	Utilities	<ul style="list-style-type: none"> Independent Power Producers & Energy Traders

Smart Grids Component

No	GICS Sector	GICS Sub-industry
1	Consumer Staples	<ul style="list-style-type: none"> All Sub Industries
2	Healthcare	<ul style="list-style-type: none"> All Sub Industries

¹² Please see <https://www.msci.com/index/methodology/latest/ThemRelevScore>

3	Consumer Discretionary	<ul style="list-style-type: none"> All Sub Industries
4	Industrials	<ul style="list-style-type: none"> Construction Machinery & Heavy Transportation Equipment Commercial Printing Office Services & Supplies Data Processing & Outsourced Services
5	Information Technology	<ul style="list-style-type: none"> IT Consulting & Other Services
6	Materials	<ul style="list-style-type: none"> Construction Materials
7	Financials	<ul style="list-style-type: none"> Transaction Payment Processing Services

Alternative Food & Agriculture Component

No	GICS Sector	GICS Sub-industry
1	Consumer Staples	<ul style="list-style-type: none"> Personal Care Products

APPENDIX III: 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 – 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 – www.msci.com/index/methodology/latest/GIMI
- ESG Factors In Methodology¹³
- Thematic Relevance Score Methodology – <https://www.msci.com/index/methodology/latest/ThemRelevScore>
- MSCI ACWI IMI Sustainable Impact Indexes Methodology – www.msci.com/index/methodology/latest/SI
- MSCI Capped Indexes Methodology – <https://www.msci.com/index/methodology/latest/Capped>

The Methodology Set for the Indexes 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’.

¹³ ‘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.

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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>.

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