MSCI ACWI IMI New Energy ESG Filtered Index

June 2023

Contents

1 Introduction

The MSCI ACWI IMI New Energy ESG Filtered Index (the 'Index'[1]) aims to represent the performance of a select set of companies associated with the development of new products and services focused on alternative energy sources, energy efficiency, batteries and smart grids, while excluding those involved in certain controversial businesses or with relatively low ESG Controversies and Ratings scores.

[1] The Index is governed by a set of methodology and policy documents ("Methodology Set"), including the present index methodology document. The methodology set for the Index can be accessed from MSCI's webpage https://www.msci.com/index-methodology 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).

2 Constructing the Index

The Index is constructed by selecting stocks from the MSCI ACWI Investable Market Index (IMI) (the 'Parent Index') based on rules explained in the following sections.

2.1 Determining the Eligible Universe of the Index

The Eligible Universe of the Index is constructed by selecting all securities from the Parent Index which are constituents of the MSCI ACWI IMI New Energy Select Index[2]. Further filtering is applied as below:

2.1.1 ESG exclusion criteria[3]

Controversial business exclusion criteria

Securities of companies involved in the following businesses are excluded from the Eligible Universe:

- Controversial Weapons
- Conventional Weapons
- Nuclear Weapons
- Civilian Firearms
- Tobacco
- Thermal Coal
- Unconventional Oil & Gas
- Arctic Oil & Gas
- Oil Sands
- UN Global Compact Violators

Please refer to Appendix 1 for more details of these criteria.

ESG Controversy Score

- ESG Controversy Score = 0 ('Red Flag' companies) – All companies assessed as having involvement in ESG controversies that are classified as Red Flags (MSCI ESG Controversy Score of 0) are excluded from the Eligible Universe. A Red Flag indicates an ongoing, Very Severe ESG controversy implicating a company directly through its actions, products, or operations.

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[2] Please refer to https://www.msci.com/index-methodology for the methodology of the MSCI ACWI IMI New Energy Select Index

[3] See section 4 for further information regarding ESG and climate data used in the Indexes 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.

- Missing Controversy Score – Companies not assessed by MSCI ESG Research's MSCI ESG Controversy Scores are excluded from the eligible universe.

ESG Rating

- Missing ESG Rating – Companies which are not rated by MSCI ESG Research for an MSCI ESG Rating are excluded from the eligible universe.

2.1.2 Emerging Markets (EM) country filter

Emerging Markets (EM) securities from only the following select markets are included in the Eligible Universe:

- China
- Taiwan
- South Korea
- South Africa

2.2 Selected Universe

The Selected Universe is constructed by excluding those securities from the eligible universe which are in the bottom quartile by ESG Industry Adjusted Score. Further screening is applied as below.

2.2.1 Liquidity screening criteria

Securities that have a 3-month average daily trading value (3M ADTV) less than 5 million USD are excluded from the selected universe. For the calculation of ADTV, please refer to Appendix 2.

2.2.2 Size screening criteria

Securities that have a free-float market capitalization less than 400 million USD are excluded from the selected universe.

2.3 Weighting Scheme

At each rebalancing, all the securities in the selected universe are reweighted in line with MSCI Adaptive Capped Indexes Methodology[4], with fixed multiplier L set to 1.5. Further capping is applied as described below.

2.3.1 Emerging Markets (EM) weight capping

Aggregate weight of Emerging Markets (EM) securities in the Selected Universe is capped at aggregate weight of Emerging Markets (EM) in the Parent Index + 10% to limit the geographical exposure of the index to Emerging Markets.

[4] For details please refer to the MSCI Adaptive Capped Indexes Methodology (Available on https://www.msci.com/index-methodology)

2.3.2 Security weight capping

Additionally, index constituents' weights are capped at 15% at the security level to mitigate concentration risk.

2.4 ESG Profile Check

The Final Universe calculated in Section 3.3.2 is assessed against the minimum requirements detailed in the below table.

In case the Final Universe is found deficient on any of the minimum requirements, then the weights of the securities in the final universe are determined through an iterative process as described in Appendix 3. The iterative downweighting process also maintains capping at 15% security level to mitigate concentration risk.

Minimum Requirements	Values	Reference Index
Carbon Emission Intensity relative to the Reference Index	Target Carbon Emission Intensity lower than the Reference Index	MSCI ACWI IMI New Energy Select Index
Weighted Average Board Independence relative to the Reference Index	Target Weighted Average Board Independence higher than the Reference Index	MSCI ACWI IMI New Energy Select Index

3 Maintaining the Index

3.1 Monthly Review of Controversies

Index constituents are reviewed on a monthly basis for the involvement in ESG controversies[5]. Existing constituents will be deleted if they face controversies as defined as defined by MSCI ESG Controversy Score of 0 ('Red flag' companies). A Red Flag indicates an ongoing, Very Severe ESG controversy implicating a company directly through its actions, products, or operations.

MSCI uses MSCI ESG 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 ESG Research by the end of the month preceding the review. For such securities, MSCI will use ESG data published after the end of month, when available, for the monthly review of the Index.

The pro forma Index is generally announced nine business days before the effective date.

3.2 Semi-Annual Index Review

The Index is reviewed on a semi-annual basis in May and November[6] and the changes are implemented at the end of May and November. The Index is rebalanced over five days T-4, T-3, T-2, T-1 and T, where T Is the effective date of the May and November Semi-Annual Index Review (SAIR). The pro forma MSCI ACWI IMI New Energy ESG Filtered Index (herein, "Pro forma Index") in general is announced nine business days before T (T-9).

During the Semi-Annual Index Review, the Eligible Universe and Selected Universe are updated.

In general, MSCI uses MSCI ESG Research data (including MSCI ESG Ratings, MSCI Climate Change Metrics, MSCI ESG Controversies Scores and MSCI Business Involvement Screening Research) 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.

3.3 Staggering the Index Rebalancing Results

The semi-annual index rebalancing changes of the Proforma Index are then staggered for implementation by spreading the change in Index Number of Shares (NOS) for each security over five days leading into the rebalancing effective date (T). For each $t \in$ {T-4, T-3, T-2, T− 1, T}, the number of shares for each security included in the Index (*Staggered Index NOS (t)*) are calculated as below:

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

[6] As an exception, the Index was not reviewed at the November 2021 Semi-Annual Index Review. The index constituents were not updated as per the rules described in section 3 (Constructing the Index) and there was no update in GICS-based exclusions for November 2021 Semi-Annual Index Review. Treatment of Parent Index deletions was as described in section 3.5 (Ongoing event-related maintenance).

Staggered Index NOS (t) = Proforma Index NOS (t) + [Adjusted Proforma Index NOS (T) − Proforma Index NOS (t)] $*$ (N/5)

where:

$t : Effective\ date\ of\ the\ staggering$

T: $Rebalancing\ effective\ date\ of\ the$ Proforma $Index$

Proforma $Index\ NOS\ (t)$: $It\ is\ the\ number\ of\ shares\ of\ a\ security\ in\ the$ Pro forma $Index\ effective\ on\ t\ (as\ of\ close\ t-1)$.

$It\ is\ calculated\ as\ a\ product\ of\ the\ end\ of\ day\ security\ number\ of\ shares\ on\ t-1\ and\ Full\ Market\ Cap\ Adjustment$ Factor $in\ the$ Proforma $Index\ on\ t$.

$Adjusted$ Pro forma $Index\ NOS\ (T)$: Proforma $Index\ NOS\ (T)\ adjusted\ for\ change\ in\ number\ of\ shares\ due\ to\ events\ like\ Rights\ Issues, Split, Consolidation, Stock\ Dividend, effective\ between\ t\ and\ T$.

$N = nth\ day\ of\ staggering, e.g.\ t-4\ is\ 1st\ day\ of\ staggering$

As an exception, for the May 2022 SAIR, the staggering will be implemented over four days {T-3, T-2, T-1, T-0} and the calculation formulae will be modified accordingly.

3.4 Ongoing event-related maintenance

Corporate event treatment for the index depends on whether the effective date of the event falls within the staggering period (T-4, T-3, T-2, T-1, T), or outside the staggering period.

3.4.1 Events effective outside the staggering period

The general treatment of corporate events in the index 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. 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.

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 outside the staggering period 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.
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.

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

3.4.2 Events effective during the staggering period

The impact of event on the Index depends on the type of event and calculation date of the Index as elaborated below.

4.2.3.2.1 CALCULATION ON T-9

a) Before effective date

The pro forma Index in general is announced nine business days before T (T-9). If there is an event already confirmed on T-9 with an effective date in the staggering period, the change in numbers of shares for the security due to the rebalancing will not be staggered for such security until the event effective date. In case of multiple events, the staggering will be postponed till the effective date of the earliest event.

b) On and after effective date

In case of Rights Issues and market neutral events (like Split, Consolidation, Stock Dividend etc.) which involve change in security number of shares but does not involve change in the full market cap adjustment factor, staggering will start from the next day of the event effective date.

For all other events, staggering will start from the effective date of the event.

4.2.3.2.2 CALCULATION AFTER T-9

a) Before Effective Date

In case of an event effective in the staggering period, the numbers of shares for the security involved in the event as announced on T-9 will hold until a day before the effective date. In case of multiple events, the effective date of the earliest event will be taken into account.

b) On and after the Effective Date

In case of Rights Issues and market neutral events (like Split, Consolidation, Stock Dividend etc.) which involve change in security number of shares but does not involve a change in inclusion factor, staggering will be applied again from the next day of the event effective date, taking into account the new post event number of shares in the Index.

For all other events, staggering will be applied from the effective date of the event incorporating the post event number of shares.

4.2.3.2.3 TREATMENT OF SUSPENDED SECURITIES

A suspension treatment will be applied to any security suspended on any day starting from T-6 until T-2. On the day of suspension (t), the pro-forma Full Market Cap Adjustment Factor in the Index announced for the security for the next day (t+1) will be held constant until T. However, in case, on T-2, if a new addition to the Parent Index is reverted due to suspension and the security is no longer a part of the Parent Index on T, the security will also be deleted from the Index effective on T.

4 MSCI ESG Research

The Index uses company ratings and research provided by MSCI ESG Research. In particular, the Index uses the following MSCI ESG Research products: MSCI ESG Ratings, MSCI ESG Controversies, MSCI ESG Business Involvement Screening Research and MSCI Climate Change Metrics.

For details on MSCI ESG Research's full suite of ESG products, please refer to: https://www.msci.com/esg-investing

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:

https://www.msci.com/esg-and-climate-methodologies

4.2 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.

4.3 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.

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

4.4 MSCI CLIMATE CHANGE METRICS

MSCI Climate Change Metrics provides climate data & tools to support institutional investors integrating seeking to integrate climate risk & opportunities into their investment strategy and processes. It supports. 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 1: Controversial Business Exclusion Criteria

Companies whose activities meet the following values and climate change-based criteria, as evaluated by MSCI ESG Research, are excluded from the MSCI ACWI IMI Future Mobility ESG Filtered Index.

Values-based Exclusions 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.
- 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.
    - 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).
    - All companies that manufacture or assemble delivery platforms that were not developed or not significantly modified for the exclusive delivery of nuclear weapons.
    - All companies that manufacture components for nuclear-exclusive delivery platforms.
- 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 revenue from manufacture and retail of civilian firearms and ammunition.
- Tobacco
    - All companies classified as a “Producer”
    - All companies deriving 5% or more aggregate revenue from the production, distribution, retail and supply of tobacco-related products.
- Conventional Weapons
    - All companies deriving 10% or more revenue from the production of conventional weapons and components

- All companies deriving 10% or more aggregate revenue from weapons systems, components, and support systems and services.

Climate Change- based Exclusions Criteria:

- Thermal Coal
  - All companies deriving 5% 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 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.
  - All companies deriving 5% or more revenue (either reported or estimated) from the thermal coal based power generation.
  - All companies that own thermal coal reserves.
  - All companies generating 10% or more power from thermal coal.
- Unconventional Oil & Gas
  - All companies deriving 5% or more revenues from oil sands, oil shale (kerogen-rich deposits), shale gas, shale oil, coal-seam gas, coal-bed methane as well as Arctic onshore/offshore reserves.
- Arctic Oil & Gas
  - All companies deriving 5% or more revenue from Arctic Oil
  - All companies deriving 5% or more revenue from Arctic Gas
  - All companies with evidence of producing Arctic oil. This factor does not capture revenue from non-extraction activities (e.g., exploration, surveying, processing, refining); ownership of Arctic oil reserves with no associated extraction revenues; revenue from intra-company sales.
  - All companies with evidence of producing Arctic gas. This factor does not capture revenue from non-extraction activities (e.g., exploration, surveying, processing, refining); ownership of Arctic gas reserves with no associated extraction revenues; revenue from intracompany sales.
- Oil Sands
  - All companies deriving 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.
- Global Norms – United Nations Global Compact Compliance
  - All companies that fail to comply with the United Nations Global Compact principles.

Appendix 2: Calculation of 3-Month Average Daily Traded Value (ADTV)

$ADTV = {}^{ATV}/_{252}$

Where:

- ADTV = 3-month Average Daily Traded Value
- ATV = 3-month Annualized Traded Value

For details on the calculation of ATV, please refer to the MSCI Index Calculation Methodology (https://www.msci.com/index-methodology)

Appendix 3: ESG Profile Check

The ESG Profile Check is applied on the securities of the final universe with the objective of meeting all the minimum requirements detailed in the table in Section 3.4.

Starting with the final universe, an iterative down weighting process is applied in order to meet with the minimum requirements for the Indexes. The iterative down weighting stops when all the requirements defined in above are met. The steps followed in the iterative downweighting are outlined below:

Step 1. Check whether all targets for the Index are met. If all targets are met, then no downweighting is required.

Step 2. Identify stocks that are either in bottom quartile by Board Independence (%) (i.e. with lowest scores) or are in the top quartile by Carbon Emissions Intensity (i.e. with highest carbon intensity). These stocks form the “downweighting group”. Rest of the stocks from the Final Universe form the “upweighting group”.

Step 3. Select the worst-scoring stock in the “downweighting group” and reduce its weight in steps of 25% (free weight) and distribute the free weight among the stocks of the “upweighting group” in proportion of their weight at Step 2. A stock cannot be down weighted by more than 75% of its weight in Step 2. Stock weight in ‘upweighting group” is capped at 15%.

Step 4. If the targets are still not met, then select the next worst-scoring stock and repeat Step 3.

Step 5. Relaxation Steps:

a. If all stocks in the “downweighting group” have been down weighted by 75% and targets are still not met, then repeat Step 3 and 4 by down weighting worst-scoring stock by 90% of its weight from Step 2.

b. If targets are not met at Step 5a, then repeat Step 3 and 4 by excluding the worst-scoring stock – down weighting the worst-scoring stock by 100%.

Worst-scoring Stocks:

a. In Step 1, if targets are not met on Carbon Emissions Intensity, then the worst-scoring stock is the stock with largest Carbon Emissions Intensity.

b. If in Step 1, the target on Carbon Emissions Intensity is met, and the target on Weighted Average Board Independence is not met, then the worst-scoring stock is the stock with lowest Board Independence (%).

Appendix 4: Changes to this Document

The following sections have been modified as of June 1, 2022:

- Appendix 1 has been updated to include screens for Unconventional Oil & Gas, Arctic Oil & Gas, Weapons Systems and more Thermal coal screens.
- Section 4.2 to reflect a change for the May 2022 SAIR only to implement staggering of index rebalancing results over T-3, T-2, T-1 and T.

The following sections have been modified as of June 1, 2023:

- Clarified the definition in Appendix I for civilian firearms revenue

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

- ESG Research Section moved to the end (changed from Section 2 to Section 4)
- Section 3.1 added to detail the monthly review of controversies and subsequent sections re-numbered.

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