

FTSE Environmental Opportunities Index Series

v5.1



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Section 1

Introduction

1. Introduction

1.1 This document sets out the Ground Rules for the construction and management of the FTSE Environmental Opportunities (EO) Index Series. Copies of the Ground Rules are available from FTSE Russell on the website <https://www.lseg.com/en/ftse-russell>.

1.2 The FTSE EO Index Series is designed to represent the performance of companies taken from the FTSE Global All Cap Index Series which is part of the FTSE Global Equity Index Series, that have specific involvement in environmental activities and are engaged in the transition to a green economy according to the GRCS.

This includes companies identified to generate Green Revenues over a specified threshold based on the FTSE Russell's Green Revenues Classification System (GRCS), which includes the ten environmental Sectors below:

- Energy Management & Efficiency;
- Energy Generation;
- Transport Equipment;
- Waste & Pollution Control;
- Energy Equipment;
- Transport Solutions;
- Water Infrastructure & Technology;
- Environmental Resources;
- Food & Agriculture;
- Environmental Support Services

Full details, including Sector and Subsector definitions within the FTSE Green Revenues Classification System can be found using the following link:

[FTSE Green Revenues Classification System.pdf](#)

The assessment to establish whether a technology, service or business qualifies as being within these sectors will be carried out by FTSE Russell as part of the Green Revenues 2.0 data model based on these classification rules.

- 1.3 The FTSE Environmental Opportunities Index Series takes account of ESG factors in its index design. Please see further details in Section 4 and 5.
- 1.4 The base currency of the benchmark is US Dollars (USD). Index values may also be published in other currencies.
- 1.5 FTSE Russell**
- FTSE Russell is a trading name of FTSE International Limited, Frank Russell Company, FTSE Global Debt Capital Markets Limited (and its subsidiaries FTSE Global Debt Capital Markets Inc. and FTSE Fixed Income Europe Limited), FTSE Fixed Income LLC, FTSE (Beijing) Consulting Limited, Refinitiv Benchmark Services (UK) Limited, Refinitiv Limited and Beyond Ratings.
- 1.6 These Ground Rules set out the methodology and provide information about the publication of the FTSE Environmental Opportunities Index Series.
- 1.7 FTSE Russell hereby notifies users of the index series that it is possible that circumstances, including external events beyond the control of FTSE Russell, may necessitate changes to, or the cessation of, the index series and therefore, any financial contracts or other financial instruments that reference the index series should be able to withstand, or otherwise address the possibility of changes to, or cessation of, the index series.
- 1.8 Index users who choose to follow this index or to buy products that claim to follow this index should assess the merits of the index's rules-based methodology and take independent investment advice before investing their own or client funds. No liability whether as a result of negligence or otherwise is accepted by FTSE Russell (or any person concerned with the preparation or publication of these Ground Rules) for any losses, damages, claims and expenses suffered by any person as a result of:
- any reliance on these Ground Rules, and/or
 - any inaccuracies in these Ground Rules, and/or
 - any non-application or misapplication of the policies or procedures described in these Ground Rules, and/or
 - any inaccuracies in the compilation of the Index or any constituent data.
- 1.9 FTSE Environmental Opportunities Index Series**
- 1.9.1 FTSE EO All-Share Index**
- This Index comprises all the companies that meet the stated eligibility requirements.
- 1.9.2 FTSE EO 100 Index**
- This Index comprises the largest 100 companies by full market capitalisation, selected from the constituents of the FTSE EO All-Share Index.
- 1.9.3 FTSE EO Water Technology Index**
- This Index comprises all the companies in the Water Infrastructure & Technology (WI) sector that meet the stated eligibility requirements.
- 1.9.4 FTSE EO Water Technology 30 Index**
- This Index comprises the largest 30 companies by full market capitalisation, selected from the constituents of the FTSE EO Water Technology Index.
- 1.9.5 FTSE EO Waste and Pollution Control Technology Index**
- This Index comprises all the companies in the Waste & Pollution Control (WP) sector that meet the stated eligibility requirements.
- 1.9.6 FTSE EO Waste and Pollution Control Technology 30 Index**

This Index comprises the largest 30 companies by full market capitalisation, selected from the constituents of the FTSE EO Waste and Pollution Control Technology Index.

1.9.7 FTSE EO Renewable and Alternative Energy Index

This Index comprises all the companies in the Energy Generation (EG) and Energy Equipment (EQ) sectors that meet the stated eligibility requirements.

1.9.8 FTSE EO Renewable and Alternative Energy 50 Index

This Index comprises the largest 50 companies by full market capitalisation, selected from the constituents of the FTSE EO Renewable and Alternative Energy Index.

1.9.9 FTSE EO Energy Efficiency Index

This Index comprises all the companies in the Energy Management & Efficiency (EM) sector that meet the stated eligibility requirements.

1.9.10 FTSE EO Energy Efficiency 50 Index

This Index comprises the largest 50 companies by full market capitalisation, selected from the constituents of the FTSE EO Energy Efficiency Index.

1.10 FTSE EO Regional and Country Indices

1.10.1 FTSE EO USA Index

This Index comprises all the companies from the FTSE EO All-Share Index that are listed in USA as defined by their nationality assignment in the FTSE Global Equity Index Series. For country classification, please refer to the FTSE Global Equity Index Series Ground Rules.

1.10.2 FTSE EO Asia-Pacific Index

This Index comprises all the companies from the FTSE EO All-Share Index that are listed in the Asian-Pacific region as defined by their nationality assignment in the FTSE Global Equity Index Series.

1.10.3 FTSE EO Asia-Pacific Ex-Japan Index

This Index comprises all the companies from the FTSE EO All-Share Index that are listed in the Asian-Pacific region in exclusion to Japan, as defined by their nationality assignment in the FTSE Global Equity Index Series.

1.10.4 FTSE EO Japan Index

This Index comprises all the companies from the FTSE EO All-Share Index that are listed in Japan as defined by their nationality assignment in the FTSE Global Equity Index Series.

1.10.5 FTSE EO Europe Index

This Index comprises all the companies from the FTSE EO All-Share Index that are listed in Europe as defined by their nationality assignment in the FTSE Global Equity Index Series.

1.11 Price Index Values are calculated on a real time basis in US Dollars. total return index values are published at the end of each working day. The total return index includes income based on ex-dividend adjustments. Currencies provided for both indices will include US Dollar, Euro, UK Pound Sterling and Japanese Yen on an end of day basis.

Section 2

Management responsibilities

2. Management responsibilities

2.1 FTSE International Limited (FTSE)

2.1.1 FTSE is the benchmark administrator of the index series¹.

2.1.2 FTSE is responsible for the daily calculation, production and operation of the FTSE EO Index Series and will:

- maintain records of the index weightings of all constituents and reserve list companies;
- make changes to the constituents and their weightings in accordance with the Ground Rules;
- carry out the periodic index reviews of the index series and apply the changes resulting from the reviews as required by the Ground Rules;
- publish changes to the constituent weightings resulting from their ongoing maintenance and the periodic reviews;
- disseminate the indices.

2.1.3 The weightings of constituents in the real time indices shall be used in the calculation of the end of day indices.

2.1.4 FTSE is also responsible for monitoring the performance of the FTSE EO Index Series throughout the day and will determine whether the status of the Index should be Firm, Held or Indicative (see Appendix C).

2.2 Amendments to these Ground Rules

2.2.1 These Ground Rules shall be subject to regular review (at least once a year) by FTSE Russell to ensure that they continue to best reflect the aims of the index series. Any proposals for significant amendments to these Ground Rules will be subject to consultation with FTSE Russell advisory committees and other stakeholders if appropriate. The feedback from these consultations will be considered by the FTSE Russell Index Governance Board before approval is granted.

2.2.2 As provided for in the statement of principles for FTSE Russell Equity Indices, where FTSE Russell determines that the Ground Rules are silent or do not specifically and unambiguously apply to the subject matter of any decision, any decision shall be based as far as practical on the statement of principles. After making any such determination, FTSE Russell shall advise the market of its decision at the earliest opportunity. Any such treatment will not be considered as an exception or change to the Ground Rules, or to set a precedent for future action, but FTSE Russell will consider whether the Rules should subsequently be updated to provide greater clarity.

¹ The term administrator is used in this document in the same sense as it is defined in [Regulation \(EU\) 2016/1011 of the European Parliament and of the Council of 8 June 2016 on indices used as benchmarks in financial instruments and financial contracts or to measure the performance of investment funds](#) (the European Benchmark Regulation) and [The Benchmarks \(Amendment and Transitional Provision\) \(EU Exit\) Regulations 2019](#) (the UK Benchmark Regulation).

Section 3

FTSE Russell index policies

3. FTSE Russell index policies

These Ground Rules should be read in conjunction with the following policy documents which can be accessed using the links below:

3.1 Corporate Actions and Events Guide

3.1.1 Full details of changes to constituent companies due to corporate actions and events can be accessed in the corporate actions and events guide using the following link:

[Corporate Actions and Events Guide.pdf](#)

3.2 Statement of principles for FTSE Russell Equity Indices (the Statement of Principles)

3.2.1 Indices need to keep abreast of changing markets and the Ground Rules cannot anticipate every eventuality. Where the Ground Rules do not fully cover a specific event or development, FTSE will determine the appropriate treatment by reference to the statement of principles which summarises the ethos underlying FTSE Russell's approach to index construction. The statement of principles is reviewed annually and any changes proposed by FTSE Russell are presented to the FTSE Russell Policy Advisory Board for discussion before approval by the FTSE Russell Index Governance Board.

The statement of principles can be accessed using the following link:

[Statement of Principles.pdf](#)

3.3 Queries and Complaints

3.3.1 FTSE Russell's complaints procedure can be accessed using the following link:

[Benchmark Determination Complaints Handling Policy.pdf](#)

3.4 Index Policy for Trading Halts and Market Closures

3.4.1 Guidance for the treatment of index changes in the event of trading halts or market closures can be found using the following link:

[Index Policy for Trading Halts and Market Closures.pdf](#)

3.5 Index Policy in the Event Clients are Unable to Trade a Market or a Security

3.5.1 Details of FTSE Russell's treatment can be accessed using the following link:

[Index Policy in the Event Clients are Unable to Trade a Market or a Security.pdf](#)

3.6 Recalculation Policy and Guidelines

3.6.1 Where an inaccuracy is identified, FTSE Russell will follow the steps set out in the FTSE Russell Index recalculation guidelines when determining whether an index or index series should be recalculated and/or associated data products reissued. Users of the FTSE EO Index Series will be notified through appropriate media.

For further information refer to the FTSE Russell recalculation policy and guidelines document which is available from the FTSE Russell website using the link below or by contacting info@ftserussell.com.

[Recalculation Policy and Guidelines Equity Indices.pdf](#)

3.7 Policy for Benchmark Methodology Changes

3.7.1 Details of FTSE Russell's policy for making benchmark methodology changes can be accessed using the following link:

[Policy for Benchmark Methodology Changes.pdf](#)

3.8 FTSE Russell Governance Framework

3.8.1 To oversee its indices, FTSE Russell employs a governance framework that encompasses product, service and technology governance. The framework incorporates the London Stock Exchange Group's three lines of defence risk management framework and is designed to meet the requirements of the IOSCO Principles for Financial Benchmarks², the European benchmark regulation³ and the UK benchmark regulation⁴. The FTSE Russell governance framework can be accessed using the following link:

[FTSE Russell Governance Framework.pdf](#)

3.9 Real Time Status Definitions

3.9.1 For indices that are calculated in real time, please refer to the following guide for details of real time status definitions:

[Real Time Status Definitions.pdf](#)

² IOSCO Principles for Financial Benchmarks Final Report, FR07/13 July 2013.

³ Regulation (EU) 2016/1011 of the European Parliament and of the Council of 8 June 2016 on indices used as benchmarks in financial instruments and financial contracts or to measure the performance of investment funds.

⁴ The Benchmarks (Amendment and Transitional Provision) (EU Exit) Regulations 2019.

Section 4

Eligible securities

4. Eligible securities

4.1 All classes of the ordinary shares in issue are eligible for inclusion in the FTSE EO Index Series, subject to conforming to all other rules of eligibility and free float.

4.2 Companies that are included in the FTSE Global All Cap Index Series are eligible for inclusion in the FTSE EO Index Series. For the list of eligibility criteria, please refer to the FTSE Global Equity Index Series Ground Rules which are available on <https://www.lseg.com/en/ftse-russell>⁵.

4.3 The Green Revenues data model

4.3.1 The FTSE Russell Green Revenues data model helps investors understand the global industrial transition to a green and low carbon economy with consistent, transparent data and indices.

Companies are analysed and categorised using a unique industrial taxonomy for green goods, products, and services that covers 10 sectors, 64 subsectors, and 133 micro sectors. For companies classified in one or more of the green micro sectors, a total percentage(s) of revenue from green products is provided.

4.3.2 Company green revenues are assessed and measured under one of three categories:

- Disclosed information when a company has sufficient disclosure to measure green revenues;
- Company-specific estimates when a company has limited revenue disclosures but there is additional non-revenue data (e.g. production volumes) or relevant market or peer data (e.g. market share of a product) that can form a reasonable basis for estimating green revenues;

At the company activity level, each of the 133 micro sectors is mapped to one of three tiers, defined as the following:

- Tier 1 covers activities (micro sectors) with significant and clear environmental benefits (e.g. EG08.0 Energy Generation – Solar);
- Tier 2 covers activities (micro sectors) with more limited but net positive environmental benefits (e.g. WI08.0 Water Utilities);
- Tier 3 covers activities (micro sectors) which have some environmental benefits but are overall net neutral or negative (e.g. EG06.0 Energy Generation – Nuclear).

4.3.3 A company will be eligible for inclusion in the FTSE EO Index Series if its Green Revenues percentage is 20% or above, calculated as the following:

- Green Revenues percentage for a company, which is the portion of green revenues as classified by the FTSE Green Revenues Classification System to total company revenue;
- Green Revenues application excludes Tier 3 activities, as defined in Rule 4.4.2;

⁵ Saudi Arabia was assigned Secondary Emerging market status in March 2019. Securities will be eligible for inclusion in the FTSE Environmental Technology Index from June 2020. China A Shares (available under the Northbound China Stock Connect Scheme) was assigned Secondary Emerging market status beginning in June 2019. Securities were eligible for inclusion in the FTSE Environmental Technology Index from June 2020.

4.3.4 In order to reduce index turnover, a buffer threshold will also be employed. At reviews of the index, new constituents will only be eligible for inclusion if they have 20% or more Green Revenues. In addition, at reviews of the index, current constituents will only be ineligible if they fall below 15% in Green Revenues.

4.4 Green Revenues Classification System

4.4.1 For further information on the FTSE Green Revenues Classification System please use the following link:

[FTSE Green Revenues Classification System.pdf](#)

Section 5

ESG data inputs

5. ESG data inputs

5.1.1 The following ESG datasets are used in the construction of the FTSE Environmental Opportunities Index Series.

ESG data inputs	Details	Used for selection, weighting or exclusion ⁶
FTSE Green Revenues	<p>FTSE Russell's Green Revenues data model identifies companies providing green products and services and classifies associated revenues based on the Green Revenues Classification System (GRCS). GRCS is a taxonomy used to define and measure the industrial transition to a Green Economy.</p> <p>More information can be found here: ftse-green-revenues-classification-system.pdf</p>	Selection
Minimum Set of Exclusions for ESG Indices	<p>The minimum set of exclusions applied to this Index Series with effect from December 2023. Details of the minimum exclusions can be found in Section 8 of the: Guide to the Construction and Maintenance of FTSE Exclusion Lists.pdf.</p> <p>Note: although the exclusion lists are updated quarterly these are applied to this index series on a semi-annual basis.</p> <p>The data cut-off date for the minimum exclusion list is the last business day of the month prior to the review month of the prior quarter's review.</p>	Exclusion

5.1.2 Further information on ESG data provided by FTSE Russell and third parties used in this index (index series) can be found in the following guide:

[Guide to FTSE and Third Party ESG Data used in FTSE Russell Indices](#)

This includes information on the data and standards used for these ESG data inputs. These data sets may include estimated data.

5.2 ESG Metrics

5.2.1 Please see the FTSE Russell <https://www.ftserussell.com/sustainable-investment-metrics> ESG Metrics website for the scores and values of the environmental, social and governance (ESG) factors listed in Annex II to Delegated Regulation (EU) 2020/1816.

Further details on the metrics methodology and calculation are available using the following links:

[Sustainability and ESG data](#)

[ESG Disclosures Methodology and Calculation Guide](#)

⁶ Definitions

Selection – ESG data is used to select or rank constituents, or calculate minimum scores or thresholds.

Weighting – ESG data is used to calculate the weight of a constituent in an index.

Exclusion – ESG data is used to exclude companies from the index.

Section 6

Qualification criteria and periodic review of constituents

6. Qualification criteria and periodic review of constituents

6.1 Review dates

- 6.1.1 The FTSE EO Index Series will be reviewed semi-annually in June and December using data as at the close of business on the Monday 4 weeks prior to the review effective date. The data cut-off dates for ESG data inputs are in the [Guide-to-FTSE-and-Third-Party-ESG-Data-used-in-FTSE-Russell-Indices.pdf](#)
- 6.1.2 The semi-annual review will be implemented after the close of business on the third Friday (i.e. effective Monday) of June and December.
- 6.1.3 Capping will be implemented quarterly after the close of business on the third Friday in March, June, September and December.

6.2 Rules for insertion and deletion at the periodic review

- 6.2.1 The rules for inserting and deleting securities at the periodic review are designed to provide stability in the selection of constituents of the FTSE EO Index Series while ensuring that the Index Series continues to be representative of the market by including or excluding those securities which have risen or fallen significantly.
- 6.2.2 A company will be added at the periodic review if it rises above the position stated below for the relevant index when the eligible securities for each FTSE EO Index are ranked by full market capitalisation, i.e. before the application of any investability weighting:

FTSE EO 100 Index	-	Risen to 90 th or above
FTSE EO Water Technology 30 Index	-	Risen to 25 th or above
FTSE EO Waste and Pollution Control Technology 30 Index	-	Risen to 25 th or above
FTSE EO Renewable and Alternative Energy 50 Index	-	Risen to 40 th or above
FTSE EO Energy Efficiency 50 Index	-	Risen to 40 th or above

- 6.2.3 A company will be deleted at the periodic review if it falls below the position stated below for the relevant index when the eligible securities for each FTSE EO Index are ranked by full market capitalisation, i.e. before the application of any investability weighting:

FTSE EO 100 Index	-	Fallen to 111 th or below
FTSE EO Water Technology 30 Index	-	Fallen to 36 th or below
FTSE EO Waste and Pollution Control Technology 30 Index	-	Fallen to 36 th or below
FTSE EO Renewable and Alternative Energy 50 Index	-	Fallen to 61 st or below

	FTSE EO Energy Efficiency 50 Index	-	Fallen to 61 st or below
6.2.4	A constant number will be maintained for the FTSE EO 100 Index, the FTSE EO Water Technology 30 Index, the FTSE EO Waste and Pollution Control Technology 30 Index, the FTSE EO Renewable and Alternative Energy 50 Index and the FTSE EO Energy Efficiency 50 Index. Where a greater number of companies qualify to be added in an index than those qualifying to be deleted, the lowest ranking constituents presently included in the index will be deleted to ensure that an equal number of companies are added and deleted at the periodic review. Likewise, where a greater number of companies qualify to be deleted than those qualifying to be added, the securities of the highest ranking companies which are presently not included in the index will be added to match the number of companies being deleted at the periodic review.		
6.2.5	Where a company is deleted from the FTSE EO 100 Index, the FTSE EO Water Technology 30 Index, the FTSE EO Waste and Pollution Control Technology 30 Index, the FTSE EO Renewable and Alternative Energy 50 Index, and the FTSE EO Energy Efficiency 50 Index after the periodic changes to the indices have been announced, but before the periodic changes have been implemented, the highest ranking company as from the new Reserve List at the day of the deletion (see Rule 5.3), excluding current index constituents, will replace the deleted company.		
6.2.6	A constant number of constituents will not be maintained for the FTSE Environmental Opportunities All-Share Index, the FTSE EO Water Technology Index, the FTSE EO Waste Index, the FTSE EO Renewable and Alternative Energy Index, the FTSE EO Energy Efficiency Index and the FTSE EO Regional and Country Indices.		
6.3	Monitoring of eligible companies		
6.3.1	The market capitalisation of companies eligible for inclusion in the FTSE EO Index Series is monitored by FTSE Russell. All listed securities that pass the EO criteria (see Section 4) will be included in the periodic reviews.		
6.4	Reserve list		
6.4.1	FTSE will be responsible for publishing the ten highest ranking non-constituents of the FTSE EO 100 Index, five highest ranking non-constituents of the FTSE EO Water Technology 30 Index, the FTSE EO Waste and Pollution Control 30 Index, the FTSE EO Renewable and Alternative Energy 50 Index, and the FTSE EO Energy Efficiency 50 Index at the time of the periodic review. The appropriate Reserve List will be used in the event that one or more constituents are deleted during the period up to the next periodic review.		
6.5	Capping methodology		
6.5.1	All indices in the FTSE Environmental Opportunities Index Series use a capping methodology every quarter to reduce concentration for constituents that are considered over-weighted in the index. The capping methodology is described in more detail in Section 0.		

Section 7

Changes to constituent companies

7. Changes to constituent companies

7.1 Intra-review additions

7.1.1 Additions to the FTSE Global Equity Index Series will be considered for inclusion in the relevant FTSE Environmental Opportunities Index Series at the next review of the relevant FTSE Environmental Opportunities Index.

7.2 Intra-review deletions

7.3 If a constituent of the FTSE EO Index Series is removed from the FTSE Global Equity Index Series, it will be removed from the FTSE EO Index Series. A deleted constituent of the FTSE EO 100 Index, the FTSE EO Water Technology 30 Index, the FTSE Waste and Pollution Control 30 Index, the FTSE EO Renewable and Alternative Energy 50 Index, and the FTSE EO Energy Efficiency 50 Index will be replaced by the highest ranking company in the Reserve List by full market capitalisation two days prior to the event being implemented. A deleted constituent of the FTSE All-Share Index, the FTSE EO Water Technology Index, the FTSE EO Waste Index, the FTSE EO Renewable and Alternative Energy Index, the FTSE EO Energy Efficiency Index and FTSE EO Regional and Country Indices will not be replaced.

7.3.1 Intra-review exclusion changes

7.3.2 If the exclusion status of an existing constituent of the underlying index changes, membership of the FTSE Environmental Opportunities Index Series will be considered at the next index review.

Section 8

Corporate actions and events

8. Corporate actions and events

8.1 Full details of changes to constituent companies due to corporate actions and events can be accessed in the corporate actions and events guide using the following link:

[Corporate Actions and Events Guide.pdf](#)

A corporate 'action' is an action on shareholders with a prescribed ex date. The share price will be subject to an adjustment on the ex date. The index will be adjusted in line with the ex date.

These include the following:

- Capital repayments;
- Rights issues/entitlement offers;
- Stock conversion;
- Splits (sub-division)/Reverse splits (consolidation);
- Scrip issues (capitalisation or bonus issue).

A corporate 'event' is a reaction to company news (event) that may impact the index depending on the index rules. For example, a company announces a strategic shareholder is offering to sell their shares (secondary share offer) – this could result in a free float weighting change in the index. Where an index adjustment is required FTSE Russell will provide notice advising of the timing of the change.

8.2 Shares in issue

Changes to the number of shares in issue for constituent securities are covered in the corporate actions and events guide.

8.3 Mergers, restructuring and complex takeovers

8.3.1 If the effect of a merger or takeover is that one constituent in the FTSE EO All Share Index, the FTSE EO Water Technology Index, the FTSE EO Waste Index, the FTSE EO Renewable and Alternative Energy Index, the FTSE EO Energy Efficiency Index, the FTSE EO Renewable and Alternative Energy 50 Index, the FTSE EO Energy Efficiency 50 Index, or FTSE EO Regional and Country Indices is absorbed by another constituent, the resulting company will remain a constituent of the Index, and a vacancy will be created, for fixed number indices this will be filled by the highest ranking company (ranked by full market capitalisation) from the reserve list as at the close of the index calculation two days prior to deletion.

8.3.2 If a constituent company in the FTSE EO 100 Index, the FTSE EO Water Technology 30 Index, the FTSE EO Waste 30 Index, the FTSE EO Renewable and Alternative Energy 50 Index, or the FTSE EO Energy Efficiency 50 Index, is taken over by a non-constituent company for stock, the original constituent will be removed, and replaced by the highest ranking company from the Reserve List.

- 8.3.3 If a constituent company is split to form two or more companies, then the resulting companies will be eligible for inclusion as index constituents in the FTSE EO 100 Index, the FTSE EO Water Technology 30 Index, the FTSE EO Waste 30 Index, the FTSE EO Renewable and Alternative Energy 50 Index, and the FTSE EO Energy Efficiency 50 Index, providing they are larger than the smallest constituent, based on their respective full market capitalisations, i.e. before the application of any investability weightings and if they qualify in all other respects. For example, a FTSE EO 100 Index constituent split into two companies may result in one or both of these companies remaining in the FTSE EO 100 Index. Where both of these companies remain in the FTSE EO 100 Index, the smallest FTSE EO 100 Index constituent will be removed from the index.
- 8.3.4 Index constituent changes resulting from the split will be determined based on market values at close on day one of trading and applied with two days' notice. Consequently the FTSE EO 100 Index, FTSE EO Water Technology 30 Index, FTSE EO Waste 30 Index, FTSE EO Renewable and Alternative Energy 50 Index and the FTSE EO Energy Efficiency 50 Index may have more than their fixed number of companies for 3 days.

8.4 Suspension of dealing

- 8.4.1 Please refer to the corporate actions and events guide.

[Corporate Actions and Events Guide.pdf](#)

Section 9

Indices algorithm and calculation method

9. Indices algorithm and calculation method

9.1 Prices

9.1.1 The FTSE EO Index Series will use actual last trade prices, where available, for securities.

9.1.2 Refinitiv real time exchange rates are used in the real-time index calculations.

9.2 Index calculation

9.2.1 The FTSE EO Index Series is calculated using the following formula:

$$\sum_{i=1}^N \frac{(p_i \times e_i \times s_i \times f_i \times c_i)}{d}$$

where,

- $i=1,2,\dots,N$;
- N is the number of securities in the index;
- p_i is the latest trade price of the component security (or the price at the close of the index on the previous day);
- e_i is the exchange rate required to convert the security's currency into the index's base currency;
- s_i is the number of shares in issue used by FTSE Russell for the security, as defined in these Ground Rules;
- f_i is the Investability Weighting Factor to be applied to a security to allow amendments to its weighting, expressed as a number between 0 and 1, where 1 represents a 100% free float. This factor is published by FTSE Russell for each security in the underlying index;
- c_i is the Capping Factor to be applied to a security to correctly weight that security in the index. This factor maps the investable market capitalisation of each stock to a notional market capitalisation for inclusion in the index;
- d is the divisor, a figure that represents the total issued share capital of the index at the base date. The divisor can be adjusted to allow changes in the issued share capital of individual securities to be made without distorting the index.

Appendix A

Capping methodology

Capping methodology

The capping process aims to reduce any concentration levels that may exist. The capping process is applied after the close of business on the third Friday in March, June, September and December based on the starting constituents of the next working day. The underlying data used in the capping process is as follows:

The security's closing price adjusted for corporate events after the close of business on the second Friday of each quarter.

The security's starting shares in issue figure, its investability weight on the next working day following the third Friday of each quarter.

The algorithm is applied to each constituent of the FTSE Environmental Opportunities Index Series that requires capping, i.e. any constituent whose uncapped weight is greater than 10%.

The Constituent Capping Factor c_i is given by:

$$c_i = \frac{Z}{I \times (p_i \times s_i \times f_i)} \sum_{j \in J} (p_j \times s_j \times f_j)$$

where,

- i denotes the security to be capped;
- j denotes an uncapped security;
- J is the subset of securities that are uncapped;
- p_k is the official closing price of the k^{th} security;
- s_k is the number of shares in issue of the k^{th} security;
- f_k is the free float factor of the k^{th} security;
- I is the percentage of the index represented by all uncapped constituents;
- Z is the percentage capping level.

Capping is applied to the constituents of the FTSE Environmental Opportunities Index Series by the following methodology:

Stage 1

Any companies whose weights are greater than 10% are capped at 10%. The weights of all lower ranking companies are increased correspondingly. The weights of lower ranking companies are then checked and if they exceed 10% they are also capped at 10%. This process is repeated until no company weight exceeds 10%.

If the total index weight of those companies whose individual weights exceed 5% is greater than 40% in aggregate, the procedure moves onto Stage 2 below. Otherwise no further capping is required.

Stage 2

(a) Capping the largest company at 10%

If more than one company is capped at 10% in Stage 1, then weights of all subsequent companies previously capped at 10% are changed in accordance with the rules detailed below.

For example, if the second largest company is capped at 10% its weight will be reduced to 9% as detailed in Stage 2b below. Thus only one company will have a 10% weight in the index.

(b) Capping the second largest company at 9%

If the weight of the second largest company is greater than 9% the company's weight is capped at 9% and the weights of the remaining companies are increased correspondingly.

Following this procedure if the total index weight of those companies whose individual weights exceed 5%, is NOT greater than 40% then no further capping is required.

However, if the total index weight of those companies whose individual weights exceed 5%, IS greater than 40% then the procedure moves onto stage 2c.

Please note: Where the 40% threshold is breached we move to stage 2c even if the second largest company has not been capped.

(c) Capping the third largest company at 8%

If the weight of the third largest company is greater than 8% the company's weight is capped at 8% and the weights of the remaining companies are increased correspondingly.

Following this procedure if the total index weight of those companies whose individual weights exceed 5%, is NOT greater than 40% then no further capping is required.

However, if the total index weight of those companies whose individual weights exceed 5%, IS greater than 40% then the procedure moves onto stage 2d.

Please note: Where the 40% threshold is breached we move to stage 2d even if the third largest company has not been capped.

(d) Capping the fourth largest company at 7%

If the weight of the fourth largest company is greater than 7% the company's weight is capped at 7% and the weights of the remaining companies are increased correspondingly.

Following this procedure if the total index weight of those companies whose individual weights exceed 5%, is NOT greater than 40% then no further capping is required.

However, if the total index weight of those companies whose individual weights exceed 5%, IS greater than 40% then the procedure moves onto stage 2e.

Please note: Where the 40% threshold is breached we move to stage 2e even if the fourth largest company has not been capped.

(e) Capping the fifth largest company at 6%

If the weight of the fifth largest company is greater than 6% the company's weight is capped at 6% and the weights of the remaining companies are increased correspondingly.

Following this procedure if the total index weight of those companies whose individual weights exceed 5%, is NOT greater than 40% then no further capping is required.

However, if the total index weight of those companies whose individual weights exceed 5%, IS greater than 40% then the procedure moves onto stage 2f.

Please note: Where the 40% threshold is breached we move to stage 2f even if the fifth largest company has not been capped.

(f) Capping the sixth largest company at 4%

If the weights of the sixth largest company and any lower ranking companies are greater than 4% those companies' weights are capped at 4% and the weights of lower ranking companies are increased correspondingly.

The process then moves to Stage 3.

Stage 3

Following the application of Stage 2, the weights of each company are checked. If the total index weight of those companies whose individual weights exceed 5% is greater than 40% in aggregate, then further capping is required and Stage 2 is repeated.

Companies are capped using prices as at the close of business on the second Friday in March, June, September and December and shares in issue and free float adjusted for corporate actions as at the Monday after the third Friday. The capping is implemented after the close of business on the third Friday of March, June, September and December.

Appendix B

Index opening and closing hours

Index	Open	Close
FTSE EO Index Series	00:30	21:10
FTSE EO Regional and Country Indices		
FTSE EO USA Index	14:30	21:10
FTSE EO Europe Index	08:00	16:30
FTSE EO Asia-Pacific Index	00:30	11:30
FTSE EO Asia-Pacific Ex-Japan Index	00:30	11:30
FTSE EO Japan Index	00:30	06:45
FTSE EO USA & Alternative Energy Index	00:30	21:10

Notes:

Indices that disseminate until 21:10 will have the closing value disseminated at 21:30.

Timings are UK hours.

Appendix C

Status of indices

The FTSE EO Index Series is calculated on a real time basis and in US Dollars in exclusion to the FTSE EO Japan Index and FTSE EO Europe Index which are calculated in Japanese Yen and Euro respectively.

For further details of real time definitions please refer to the following guide:

[Real Time Status Definitions.pdf](#)

The official opening and closing hours of the FTSE EO Index Series are set out in Appendix B. Variations to the official hours of the indices will be published by FTSE Russell.

US Dollar, Euro, UK Pound Sterling and Japanese Yen values will be calculated on an end-of-day basis.

Appendix D

Further information

A glossary of terms used in FTSE Russell's Ground Rule documents can be found using the following link:

[Glossary.pdf](#)

The FTES Russell ESG Metrics website can be found using the following link: [ESG Metrics](#)

For further information on the FTSE Environmental Opportunities Index Series, please visit www.ftserussell.com or contact FTSE Russell via e-mail at info@ftserussell.com.

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