

FTSE JPX Net Zero Japan Index Series

v1.7



**FTSE
RUSSELL**

An LSEG Business

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Section 1

Introduction

1. Introduction

1.1 This index is designed to reflect the performance of Japanese companies, based on the constituents in the FTSE JPX Japan 500 Reference Index and the FTSE JPX Japan 200 Reference Index*, where the weights of index constituents vary to account for risks and opportunities associated with the transition to a low carbon economy. The constituent weights are tilted with Fossil Fuel Reserves, Carbon Emissions, Green Revenues, TPI Management Quality and TPI Carbon Performance for potentially signalling the 2DC transition progress/performance of the companies.

In addition, the indices are aligned with the EU's Climate Transition Benchmark criteria (CTB), by targeting a minimum 30% reduction in carbon emissions relative to the reference benchmark and applying a decarbonisation trajectory to achieve "net zero" by 2050 using FTSE Russell's target exposure methodology.

1.2 This document sets out the Ground Rules for the construction and management of the FTSE JPX Net Zero Japan Index Series. Copies of these Ground Rules are available from www.lseg.com/en/ftse-russell/.

1.3 These Ground Rules should be read in conjunction with:

- FTSE Global Equity Index Series Ground Rules;
- FTSE EU Climate Benchmarks Index Series Ground Rules;
- FTSE Global Factor Index Series Ground Rules,

and the corporate actions and events guide for non-market capitalisation weighted indices which are available at www.lseg.com/en/ftse-russell/.

1.4 The following indices are calculated:

- FTSE JPX Net Zero Japan 500 Index;
- FTSE JPX Net Zero Japan 200 Index.

1.5 Price and total return indices will be calculated on a real time basis.

1.6 The base currency of all indices is Japanese Yen (JPY). Index values may also be published in other currencies.

1.7 The FTSE JPX Net Zero Japan Index Series takes account of ESG factors in its index design (See Section 4).

If a tilting approach is used for an ESG data input, the objective is for the index methodology to overweight and/or underweight constituents according to specific ESG criteria. This approach will not remove all companies with exposure to a specific ESG activity or sector.

1.8 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.

- 1.9 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 or investment funds which use the benchmark to measure their performance should be able to withstand, or otherwise address the possibility of changes to, or cessation of, the Index Series.
- 1.10 Index users who choose to follow this Index Series or to buy products that claim to follow this index should assess the merits of the Index Series' 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 for any losses, damages, claims and expenses suffered by any person as a result of:
- any reliance on these Ground Rules, and/or
 - any errors or 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 errors or inaccuracies in the compilation of the Index Series or any constituent data.

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 index and will:

- maintain records of the index weightings of all constituents;
- make changes to the constituents and their weightings in accordance with the Ground Rules;
- carry out the periodic 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 index series.

2.1.3 These Ground Rules set out the methodology and provide information about the publication of the FTSE JPX Net Zero Japan Index Series.

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 Ground 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

3.2 Full details of changes to constituent companies due to corporate actions and events can be accessed in the corporate actions and events guide for non-market capitalisation weighted indices using the following link:

[Corporate Actions and Events Guide for Non Market Cap Weighted Indices.pdf](#)

3.3 Statement of Principles for FTSE Russell Equity Indices (the Statement of Principles)

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 Russell 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 FTSE Russell's Index Governance Board.

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

[Statement of Principles.pdf](#)

3.4 Queries and Complaints

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

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

3.5 Index Policy for Trading Halts or Market Closures

3.5.1 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](#)

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

3.6.1 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](#)

3.7 Recalculation Policy and Guidelines

3.7.1 The FTSE JPX Net Zero Japan Index Series is recalculated whenever errors or distortions occur that are deemed to be significant. Users of the FTSE JPX Net Zero Japan Index Series are 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](#)

3.8 Policy for Benchmark Methodology Changes

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

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

3.9 FTSE Russell Governance Framework

3.9.1 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](#)

3.10 Real Time Status Definitions

3.10.1 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

ESG data inputs

4. ESG data inputs

4.1 The following ESG datasets are used in the construction of the indices.

ESG data inputs	Details	Used for selection, weighting or exclusion ⁵
FTSE Green Revenues	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. More information can be found here: ftse-green-revenues-classification-system.pdf	Weighting
TPI Management Quality (MQ)	FTSE Russell's TPI Management Quality (MQ) data evaluates and tracks the quality of companies' governance/management of their greenhouse gas emissions and of risks and opportunities related to the low-carbon transition. More information can be found here: https://www.transitionpathwayinitiative.org/methodology	Weighting
TPI Carbon Performance Scores (CP)	TPI Carbon Performance (CP) scores assess how companies' carbon performance now and in the future might compare to the international targets and national pledges made as part of the Paris Agreement. More information can be found here: https://www.transitionpathwayinitiative.org/methodology	Weighting
FTSE Carbon Reserves	FTSE Carbon Reserves data model provides granular coverage of fossil fuel reserve ownership among publicly listed companies in developed markets and emerging economies. More information can be found here: Guide to FTSE and Third Party ESG Data used in FTSE Russell Indices	Weighting
FTSE Carbon Emissions	The FTSE Carbon Emissions Dataset provides reported and estimated Scope 1, Scope 2 and Scope 3 emissions data for both the assets and activities controlled by global publicly listed companies and their entire value chain (upstream and downstream activities). More information can be found here: Guide to FTSE and Third Party ESG Data used in FTSE Russell Indices	Weighting
Product related data – FTSE Russell	FTSE exclusion lists on the activities of companies with exposure to the products or services that are listed in Section 7 of the Guide to the Construction and Maintenance of FTSE Exclusion Lists.pdf .	Exclusion
Conduct related data – FTSE	FTSE exclusion lists on the activities of companies that are directly or indirectly linked to controversial conduct and diversity. More information can be found: in Section 7 of the	Exclusion

⁵ 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.

ESG data inputs	Details	Used for selection, weighting or exclusion ⁵
	Guide to the Construction and Maintenance of FTSE Exclusion Lists.pdf	
Conduct related data – Sustainalytics	Sustainalytics Global Standards Screening (GSS) assess companies' impact on stakeholders and the extent to which a company causes, contributes or is linked to violations of international norms and standards. More information can be found: https://www.sustainalytics.com/investor-solutions/esg-research/esg-screening/global-compact-norms-based-screening	Exclusion
Conduct related data – RepRisk	The RepRisk Index (RRI) captures and quantifies a company's reputational risk exposure to ESG issues. More information can be found: https://www.reprisk.com/news-research/resources/methodology	Exclusion
Minimum Set of Exclusions for Sustainable Investment Indices	The minimum set of exclusions applied to this Index Series with effect from December 2023. Details of the minimum exclusions can be found in the Guide to the Construction and Maintenance of FTSE Exclusion Lists.pdf	Exclusion

4.1.1 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.

4.2 ESG Metrics

4.2.1 Please see the FTSE Russell [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](#)

Section 5

Climate transition indicators

5. Climate transition indicators

5.1 Green Revenues (GR)

- 5.1.1 The Green Revenues (GR) score is the ratio of revenues as classified by the FTSE Green Revenues Classification System to total revenue based on the FTSE Russell Green Revenue 2.0 data model.
- 5.1.2 The FTSE Green Revenues application excludes any green revenues from Tier 3 activities. Tier 3 activities are defined as micro sectors which have some environmental benefits but are overall net neutral or negative.
- 5.1.3 All constituent securities are assigned a FTSE Green Revenues ratio value. The FTSE Green Revenues ratio for a company can be:
- Zero if a constituent company has no exposure to the Green Economy;
 - A non-zero value, when a constituent company is identified to generate Green Revenues as defined by the FTSE Green Revenues Classification System.

5.2 The Transition Pathway Initiative (TPI)

- 5.2.1 TPI assesses companies' progress on the transition to a low-carbon economy on two dimensions: Management Quality and Carbon Performance.
- 5.2.2 TPI Management Quality (MQ) assesses the quality of companies' management of their greenhouse gas emissions and of risks and opportunities related to the low-carbon transition. MQ scores are derived from the climate theme data from FTSE Russell's ESG data model based on TPI's methodology which is published on the public website: <http://www.lse.ac.uk/GranthamInstitute/tpi/methodology/>
- 5.2.3 The TPI Carbon Performance (CP) assess individual companies' current and projected future emissions pathways and how this compares to the international targets and national pledges made as part of the UN Paris Agreement. Companies that receive an assessment are categorized into different groups, which are described in the [Guide to FTSE and Third Party ESG Data used in FTSE Russell Indices](#) and are provided by TPI on an annual basis.

Companies are assigned a TPI CP score based on their Carbon Performance assessment

Carbon Performance Categories	CP Scores (Multiplier)
Below 2°C (pulp & paper only)/ 1.5°C	2.0
2°C (pulp & paper only)/ 2°C	1.5
Paris/National/International Pledges	0.8
Not Aligned	exp(x)
Not yet assessed	1.0 (neutral)

**The Carbon Performance score of 'not aligned' is set to $\exp(x)$ for FTSE JPX Net Zero Japan Index Series and x is the tilt strength for not aligned emission reduction. Tilt strength for an index is determined in the weighting (see section 8).*

5.3 Carbon Emissions Intensity (E)

Carbon Emissions Intensity is defined as the latest annual CO2 equivalent greenhouse gas (GHG) emissions in metric tons scaled by enterprise value including cash (in USD). CO2 equivalent GHG emissions data is defined as GHG Protocol Scope 1 and 2 and Scope 3 emissions. Enterprise Value data is sourced from Worldscope. The data cut-off date for the availability of Carbon Emissions Intensity is the close of business on the last business day of the month prior to the review month.

5.4 Potential emissions: Fossil Fuel Reserve Intensity (R)

Fossil Fuel Reserve Intensity is defined as the estimated CO2 equivalent GHG emissions in metric tons generated by the combustion of a company's fossil fuel reserves, divided by its full company market capitalisation (in USD). The data cut-off date for the availability of Fossil Fuel Reserve Intensity is the close of business on the last business day of the month prior to the review month.

5.5 Z-Scores and missing data treatment

5.5.1 Z-scores are calculated for Green Revenue (GR), Scope 1 and 2 Carbon Emissions Intensity (ES1&2), Scope 3 Carbon Emissions (ES3), Fossil Fuel Reserve Intensity (R) and TPI Management Quality (MQ).

5.5.2 Individual stock quantities are normalised cross-sectionally to create Z-Scores within each underlying universe according to:

$$Z_{F,i} = \frac{F_i - \mu_F}{\sigma_F} \text{ where } F \in \{Log(GR), ES1\&2, ES3, Log(R), MQ\} \quad (1)$$

where F_i is the F -quantity of the i^{th} stock and μ_F and σ_F are its cross-sectional factor mean and standard deviation respectively.

Z-Scores that are greater (less) than three (minus three) are truncated to a value of three (minus three). Post-truncation, individual Z-Scores are renormalised by the re-application of equation (1).

All Z-Scores, including truncated ones are included in this re-application. This process is repeated until all Z-Scores lie in a range between plus and minus three.

Companies with missing data are excluded from this process.

Companies in the following ICB sub-sectors which do not have Fossil Fuel Reserve data available are assigned the average Z-score of all companies in this group of sub-sectors. If there are no companies in this group of sub-sectors with reserve data, a Z-score of 0 is assigned.

- Integrated Oil and Gas (ICB: 60101000);
- Oil: Crude Producers (ICB: 60101010);
- Offshore Drilling and Other Services (ICB: 60101015);
- Oil Refining and Marketing (ICB: 60101020);
- Oil Equipment and Services (ICB: 60101030);
- Pipelines (ICB: 60101035) Other companies with no Fossil Fuel Reserve are assigned a Z-Score of -3 for their Fossil Fuel Reserve and not included in the Z-Score calculation process of these two indicators.

5.5.3 Stocks with missing Carbon Emissions Intensities are assigned the average Z-Score of their ICB sector. The average is taken across non-missing Z-Scores of Carbon Emissions Intensities in the sector at the process described in Rule 5.2.2 A Z-Score of zero is assigned when there are less than three stocks with Z-Scores in the ICB sector.

5.5.4 Due to low and unreliable coverage, scope 3 emissions estimation models do not cover financials for the FTSE JPX Net Zero Japan Index Series. Instead, all financials (ICB 30), including those with disclosed scope 3 are assigned a Z-score of 3 (and therefore 'worst' tilt on the scope 3 carbon emissions) to reflect their very large but under-estimated emissions.

5.5.5 Stocks with missing TPI Management Quality (MQ) scores are assigned the average Z-Score of their country. The average is taken across non-missing Z-Scores of MQ scores in the country using at the

process described in Rule 5.2.2 A Z-Score of zero is assigned when there are less than three stocks with Z-Scores in the country.

Section 6

Eligible securities

6. Eligible securities

6.1 The eligible securities of each Climate Index are the constituents of the corresponding underlying index shown in Table 1.

6.1.1 Securities from the applicable exclusion list (see Appendix A) are not eligible for membership of the relevant index.

6.2 Multiple lines

6.2.1 All lines of the same eligible company are eligible for inclusion in the index.

6.3 FTSE JPX Net Zero Japan Index Series Index Series

The FTSE JPX Net Zero Japan Index Series consists of the following indices.

Table 1: FTSE JPX Net Zero Japan Indices

Index name	Underlying index	Exclusion list
FTSE JPX Net Zero Japan 500 Index	FTSE JPX Japan 500 Reference Index*	See Appendix A
FTSE JPX Net Zero Japan 200 Index	FTSE JPX Japan 200 Reference Index*	

*FTSE JPX Japan 500 Reference index consists of TOPIX 500 constituents with FTSE Russell free float weights and corporate actions and FTSE JPX Japan 200 Reference Index consists of the largest 200 stocks in terms of market value in FTSE JPX Japan 500 Reference Index.

6.4 Excluded companies

6.4.1 Product and activity involvement data are collected from publicly available information by FTSE Russell analysts. Where data is not obtained by FTSE Russell analysts, external sources are used to supplement the data including from Sustainalytics.

6.5 Screens applied to Eligible Securities

A. Foreign Ownership Restrictions

FTSE Russell's index methodology takes account of the restrictions placed on the equity holdings of foreign investors in a company where these have been imposed by a government, regulatory authority or the company's constitution.

Further details of the Foreign Ownership Restrictions can be accessed using the following link:

[Foreign Ownership Restrictions and Minimum Foreign Headroom Requirement.pdf](#)

B. Minimum Foreign Headroom Requirement

FTSE Russell defines “foreign headroom” as the percentage of shares available to foreign investors as a proportion of the company’s Foreign Ownership Limit (FOL), i.e. $(FOL - \text{foreign holdings})/FOL$.

For example, if a company has a foreign ownership limit, of 49%, of which 39% is held by foreign investors, the foreign headroom will be calculated as 20.41% i.e. $(49\% - 39\%)/49\%$.

Further details of the Minimum Foreign Headroom Requirement can be accessed using the following link:

[Foreign Ownership Restrictions and Minimum Foreign Headroom Requirement.pdf](#)

Section 7

Periodic review of constituent companies

7. Periodic review of constituent companies

7.1 Review dates

7.1.1 The FTSE JPX Net Zero Japan Index Series are reviewed annually in December.

FTSE Zero Japan Index Series	Review months
FTSE JPX Net Zero Japan 500 Index	December
FTSE JPX Net Zero Japan 200 Index	December

Index reviews will use climate indicators as of the last business day of the month prior to the review month (the data cut-off date). The calculations described in Appendix B will be recalculated at the annual review using this data cut-off date.

7.1.2 Index reviews will use stock prices available as at the close of business on the Wednesday before the first Friday of the review month (price cut-off 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](#).

7.1.3 The review will be implemented after the close of business on the third Friday of the review month.

7.1.4 Index reviews will incorporate constituent changes associated with reviews of the underlying eligible universe as of the review effective date. Any changes to the status of “Excluded Companies” as defined in Appendix A are applied using data as at the close of business on the Monday four weeks prior to review effective date.

Section 8

Weighting methodology

8. Weighting methodology

8.1 Index weights

8.1.1 Constituent weightings in the FTSE JPX Net Zero Japan Index Series are set to meet the Climate Transition (CTB) index objectives:

Climate Transition (CTB) objectives	Index targets
Minimum carbon emissions reduction relative to underlying index (see 8.1.4 and Appendix B)	30% – Scope 1 and 2 Emissions 30% – Scope 3 Emissions
Minimum average annual carbon emissions reduction relative to the index base year (see 8.1.5 and Appendix B)	7% – Scope 1 and 2 Emissions 7% – Scope 3 Emissions (applies after 2020 base year)
Active weight in High Climate Impact Sector relative to underlying index in aggregate (see Appendix C)	0

These metrics were designed to meet Climate Transition (CTB) criteria.

Also see Appendix A for exclusions applied.

8.1.2 The FTSE JPX Net Zero Japan 500 Index is set to meet the following additional climate objectives:

Additional Climate objectives	Index targets
Minimum potential emissions reduction relative to underlying Index (see 8.1.2 and Appendix B)	≥30%
Green Revenues Improvement	≥ 70%
Corporate Target Setting: TPI MQ score improvement	0.3σ*
Corporate Target Setting: TPI Carbon Performance tilt	1 tilt
Corporate Target Setting: TPI Carbon Performance 'Not Aligned' companies' emission reduction relative to underlying Index	≥ 60% Scope 1 & 2 Emissions
Active weight of each company in ICB sub-sector Banks (30101010)	≤ 0

* σ is the market capitalisation weighted standard deviation of the score in the underlying universe.

8.1.3 The FTSE JPX Net Zero Japan 200 Index is set to meet the following additional climate objectives:

Additional Climate objectives	Index targets
Potential emissions reduction relative to underlying Index (see 8.1.2 and Appendix B)	≥30%
Green Revenues Improvement	≥ 100%
Corporate Target Setting: TPI MQ score improvement	0.5σ*
Corporate Target Setting: TPI Carbon Performance tilt	1 tilt
Corporate Target Setting: TPI Carbon Performance 'Not Aligned' companies' emission reduction relative to underlying Index	≥ 60% Scope 1 & 2 Emissions
Active weight of each company in ICB sub-sector Banks (30101010)	≤ 0

* σ is the market capitalisation weighted standard deviation of the score in the underlying universe.

8.1.4 Minimum carbon emissions reduction relative to the underlying index and minimum average annual carbon emissions reduction relative to the index base year apply a 0.5% buffer to allow drift between targeted and realised emission targets (see Appendix B).

8.1.5 FTSE JPX Net Zero Japan Index Series employs a base year of 2020 for the application of the minimum average annual carbon emissions reduction relative to the index base year.

The first assessment period to meet the Paris-Aligned (PAB) and Climate Transition (CTB) index minimum requirements will be measured on an annual basis starting from the first index review in the calendar year following the launch of the index.

Should a significant change in the calculation methodology of GHG intensity or absolute GHG emissions occur, a new base year may be selected.

8.1.6 FTSE JPX Net Zero Japan Index Series also applies below constraints:

Index	Country	Industry	Max company weight (%)	Min company weight (b.p.)	Max capacity ratio	Max 2 – way T/O (%)
FTSE JPX Net Zero Japan 500 Index	-	2%	5	0.5	5	20
FTSE JPX Net Zero Japan 200 Index	-	4%	5	0.5	5	30

8.1.7 Constituent weightings in the FTSE JPX Net Zero Japan Index Series are determined using FTSE Target Exposure methodology. The weight of the constituent is determined as:

$$w_i = \frac{v_i}{\sum_j v_j}$$

where

$$v_i = w'_i \times S_{GR,i}^a \times S_{ES1\&2,i}^{b1\&2} \times S_{ES3,i}^{b3} \times S_{R,i}^c \times S_{MQ,i}^d \times CP_i \times I_i \times \Phi_i \times C_i$$

where,

- w'_i is the market capitalisation weight of stock i in the underlying eligible universe;
- $S_{GR,i}, S_{ES1\&2,i}, S_{ES3,i}, S_{R,i}, S_{MQ,i}$ are natural exponents of the corresponding Z-scores detailed in Rule 5.5;
- $a, b1\&2, b3, c$ and d are tilt-strength determined at index weighting;
- CP_i is the TPI carbon performance fixed tilt detailed in 5.2.3.
- I_i is Industrial ICB tilt;
- Φ_i is the maximum stock capacity/maximum weight tilt;
- C_i is maximum turnover tilt.

For details of FTSE Target Exposure methodology see FTSE Global Factor Index Series.

8.1.8 If there is no feasible solution after Rule 8.1.7, FTSE JPX Net Zero Japan Index Series TPI MQ score and TPI MQ score improvements are reduced by 2.5% of their original value and the whole process is attempted again. If this continues to be the case after 10 reductions (i.e. after the exposure targets have been reduced by 25%), then the turnover target is increased by 50% and the whole process is repeated using the original active exposure targets. Details for the relaxation can be found in FTSE Global Factor Ground Rules.

8.1.9 If there is no feasible solution after Rule 8.1.8, FTSE JPX Net Zero Japan Index Series emission requirements are reduced by 2.5% of their original value and the weighting process detailed in Rules 8.1.7 and 8.1.8 is re-attempted. This process is repeated until a valid solution is achieved.

8.1.10 In the event of FTSE JPX Net Zero Japan Index Series minimum requirements being relaxed during the index review, FTSE JPX Net Zero Japan Index Series adjustments and targets would be applied at the next index review. Additional details are provided in Appendix B.

8.1.11 Prior to the full incorporation of a Scope 3 Emission Intensity Target December 2022, FTSE JPX Net Zero Japan Index Series applied an adjustment in December 2021 to ensure partial Scope 3 emissions reductions were applied to the Energy and Mining Sectors (see Appendix B for details).

8.2 Index back-histories

8.2.1 Company carbon emissions data is lagged for one year before the end of March 2021.

8.2.2 TPI data as of September 2018 is used in the index review process prior to 2018.

Section 9

Changes to constituent companies

9. Changes to constituent companies

9.1 Intra-review additions

9.1.1 FTSE JPX Net Zero Japan Index Series will not accept intra-review additions.

9.2 Intra-review deletions

9.2.1 There will be no intra-review deletions except in the event of corporate actions and events covered in Section 10, or of securities which are subject to surveillance by stock exchanges.

9.3 Intra-review changes to exclusion lists

9.3.1 A constituent will be removed from the FTSE JPX Net Zero Japan Index Series if it is added to a relevant exclusion list. The deletion will be concurrent with its addition to the exclusion list.

9.3.2 A stock that is removed from a relevant exclusion list will be considered for inclusion at the next annual review.

Section 10

Corporate actions and events

10. Corporate actions and events

10.1 If a constituent has a stock split, stock consolidation, rights issue, bonus issue, a change in the number of shares in issue or a change in free-float (with the exception of tender offers), the constituent's weighting in the FTSE JPX Net Zero Japan Index Series remains unchanged pre and post such an event.

10.2 Full details of changes to constituent companies due to corporate actions and events can be accessed in the corporate actions and events guide for non-market capitalisation weighted indices using the following link:

[Corporate Actions and Events Guide for Non Market Cap Weighted Indices.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. 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.

10.3 Suspension of dealing

Suspension of dealing rules can be found within the corporate actions and events guide for non-market capitalisation weighted indices.

10.4 Takeovers, mergers and demergers

The treatment of takeovers, mergers and demergers can be found within the corporate actions and events guide for non-market capitalisation weighted indices.

Section 11

Industry Classification Benchmark (ICB)

11. Industry Classification Benchmark (ICB)⁶

11.1 Classification structure

11.1.1 The FTSE JPX Net Zero Japan Index Series constituents are classified into Industries, Supersectors, Sectors and Subsectors, as defined by the Industry Classification Benchmark (ICB).

11.1.2 Details of the Industry Classification Benchmark are available from FTSE Russell and published on the FTSE Russell website (www.lseg.com/en/ftse-russell/) and can be accessed using the following link:

[Industry Classification Benchmark](#)

⁶ Russell indices migrated to the new ICB classification system in September 2020 and FTSE indices migrated in March 2021.

Section 12

Indices algorithm and calculation method

12. Indices algorithm and calculation method

12.1 Prices

12.1.1 The FTSE JPX Net Zero Japan Index Series uses actual closing mid-market or last trade prices, where available, for securities with local market quotations. Further details can be accessed using the following link: [Closing Prices Used For Index Calculation.pdf](#)

12.2 Calculation frequency

12.2.1 The FTSE JPX Net Zero Japan Index Series will be calculated on both end of day and real time basis and displayed to eight decimal points.

12.3 Index calculation

12.3.1 The FTSE JPX Net Zero Japan Index Series are calculated using the algorithm described below:

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

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 Weight Adjustment Factor (WAF) 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

FTSE JPX Net Zero Japan Index Series Exclusions

Product involvement exclusions

At each index review date, companies with the business activities listed in the table below are excluded from the eligible universe. Data for the FTSE JPX Net Zero Japan Index Series Exclusions are sourced from FTSE Russell and Sustainalytics.

Exclusion lists are reviewed on a quarterly basis in March, June, September and December.

FTSE JPX Net Zero Japan Index Series Exclusions		
Baseline exclusions	Definition	Involvement threshold for exclusions
Controversial Weapons	<p>Anti-personnel mines: Companies that produce anti-personnel mines as defined in the “1997 Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and on their Destruction”, or that produce specific and critical parts or services for anti-personnel mines</p> <p>Biological & Chemical weapons: Companies that produce chemical or biological weapons, or that produce specific and critical parts or services for chemical or biological weapons</p> <p>Cluster Munitions: Companies that produce cluster munitions as defined in the Convention on Cluster Munitions, or that produce specific and critical parts or services for cluster munitions</p>	Greater than 0% of revenues
Tobacco activities	<p>Companies producing tobacco products including cigarettes, roll your own tobacco, pipe tobacco, cigars, cigarillos, bidis, gutka, smokeless tobacco, and heated tobacco products (HTPs), as well as electronic cigarettes (or 'e-cigarettes') and electronic nicotine delivery systems (ENDS)</p> <p>This includes:</p> <ul style="list-style-type: none"> – all companies that are classified in the ICB Subsector Tobacco 45103010 and Cannabis Producers 20103020; – companies that are not classified in ICB Subsector Tobacco 45103010 and Cannabis Producers 20103020, but that are identified as having any activity in this Subsector. 	Greater than 0% of revenues

Conduct-related exclusions

At each index review date, the UN Global Compact (UNGC) controversies exclusion list outlined below will be applied to the underlying eligible universes of the FTSE JPX Net Zero Japan indices. This data is provided by third party data vendor, Sustainalytics.

FTSE JPX Net Zero Japan Index Series Exclusions		
Baseline exclusions	Definition	Involvement threshold for exclusions
UN Global Compact (UNGC) violations	Companies involved in controversies related to the UNGC principles. The principles are classified into four categories: Human Rights, Labor, Environment and Anti-corruption	All companies deemed to be noncompliant
Do No Significant Harm	Companies at risk of contributing to severe or systemic and/or systematic violations of international norms and standards relating to UNGC principles 7, 8, 9	All companies assigned Watchlist status

For further details on FTSE Russell and/or Sustainalytics data, please refer to Section 4. Companies not covered by FTSE Russell and/or Sustainalytics are excluded from FTSE JPX Net Zero Japan Index Series.

Appendix B

Carbon emissions

GHG emissions: The FTSE JPX Net Zero Japan Index Series uses Scope 1 and 2 carbon emissions intensity and potential carbon emissions from fossil fuel reserve ownership.

Carbon emission reduction is measured as the reduction of carbon emissions intensity.

Potential carbon emission reduction is measured as the reduction of potential carbon emissions intensity.

Scope 1 and 2, and Scope 3 carbon emissions intensity is defined as:

Company total carbon emissions (Scope 1 and 2 or Scope 3) in metric tonnes CO₂ scaled by enterprise value including (EVIC) cash (USD).

Potential carbon emissions intensity is defined as:

Company total CO₂ equivalent of the fossil fuel reserve in metric tonnes CO₂ scaled by full company market capitalisation (USD).

Average annual GHG emissions reduction relative to base year of the index

The FTSE JPX Net Zero Japan Index Series requires an average annual GHG intensity reduction relative to base year of the index.

The average carbon emissions reduction relative to base year of the index is calculated⁷ as the weighted average emission intensity (WA_EM) over the previous year's level, adjusted for inflation by the universe average enterprise value including cash (AVG_EVIC). That is:

$$1 - \left(\frac{WA_EM_t}{WA_EM_{t_0}} \div \frac{AVG_EVIC_{t_0}}{AVG_EVIC_t} \right)^{\frac{1}{t-t_0}}$$

where t_0 is the base year and t is current review year.

The average annual potential carbon emissions reduction relative to base year of the index⁸ is calculated as the weighted average potential emission intensity (WA_PEM) compared to the base year's level:

$$1 - \left(\frac{WA_PEM_t}{WA_PEM_{t_0}} \right)^{\frac{1}{t-t_0}}$$

⁷ Calculated for Scope 3 emissions separately from Scope 1 and 2.

⁸ Applied only prior to December 2022 rebalance.

Index GHG emissions targets

At review, the index emission intensity targets are set as the lower of (1) Emission Reduction Relative to Benchmark and (2) Emission Trajectory Target, where:

$$\text{Emission Reduction Relative to Benchmark} = (1 - r - b) \times \text{Benchmark Emission}$$

$$\text{Emission Trajectory Target} = [(1 - 7\%)^{t-t_0} - b] \times WA_{EM_{t_0}} \div \frac{AVG_{EVIC_t}}{AVG_{EVIC_{t_0}}}$$

where $b = 0.5\%$ is the buffer to allow for drift between targeted and realised targets and r is the minimum carbon emission intensity reduction relative to underlying Index as set out in Section 8.

Phased Scope 3 Emission Data

As a proxy for Scope 3 Emissions targets, the FTSE JPX Net Zero Japan Index Series incorporated a Potential Trajectory Target from inception up to and including the 2021 rebalance. The Potential Emission target was set as the lower of (1) Potential Emission Reduction Relative to Benchmark and (2) Potential Emission Trajectory Target, where:

$$\text{Potential Emission Reduction Relative to Benchmark} = (1 - r - b) \times \text{Benchmark Potential Emission}$$

$$\text{Potential Emission Trajectory Target} = [(1 - 7\%)^{t-t_0} - b] \times WA_{PEM_{t_0}}$$

Partial Scope 3 data was introduced in 2021.

The Scope 3 emission targets were set such that the relevant sectors achieved the same as the emission targets for emissions (Scope 1 and 2 emissions). Scope 3 emission data used in 2021 covered the estimated Use of Sold Products for the Energy and Mining sectors.

The adjustment is applied as below:

$$w_i = \frac{v_i}{\sum_j v_j}$$

where

$$v_i = w_i \times S_{E3,i}^g$$

where,

- w_i is the index weight of stock i before scope 3 emission adjustment;
- $S_{E3,i}$ is the natural exponent for the scope 3 emission Z-score calculated the same way as emissions as detailed in rule 5.5;
- g is the tilt-strength that is required to adjust the index to meet scope 3 emission requirement.

The adjustment will follow price cut-off date and implementation date as detailed in Rule 7.1.3 and 7.1.4.

2022 Full Scope 3 Emission Data

From December 2022, the FTSE JPX Net Zero Japan Index Series incorporates Scope 1 and 2, and Scope 3 targets for full coverage (apart from Financials (ICB sector 302010), see 5.5.4) and do not incorporate a Potential Emission Trajectory Target. Scope 1 and 2, and Scope 3 emissions targets are calculated as covered above. As this represents a significant change of the GHG emissions calculation methodology, all indices launched before December 2022 will restate base year levels to accommodate the incorporation of Scope 3 data.

Appendix C

High climate impact sector

FTSE JPX Net Zero Japan Index Series will maintain equal active weight in 'High Climate Impact' and 'Low Climate Impact' sectors, relative to the underlying index. As per the Delegated Acts for EU climate benchmarks (A19a-A19d of the consolidated European Benchmarks Regulation), securities in NACE sector codes A, B, C, D, E, F, G, H, L are classified as "High Climate Impact", whereas securities in NACE sector codes I, J, K, M, N O, P, Q, R, S, T are classified as "Low Climate Impact".

FTSE Russell has mapped NACE classes to ICB according to the following steps:

- The NACE exposure of each ICB 4 subsector is determined;
- ICB company classifications are then cross-referenced with the Refinitiv Worldscope Fundamentals database providing the NACE sector of segmental revenues, in order to map the percentage of company revenues of each ICB Level 4 subsector aligning to a NACE Level 1 sector;
- In the cases where ICB level 4 subsector revenues are split between one or more NACE sectors, the NACE & ICB definitions are used to determine the appropriate NACE mapping.

The mapping is provided below:

ICB 4	Name	NACE	Classification
10101015	Software	J	Low Climate Impact
10101020	Consumer Digital Services	J	Low Climate Impact
10102010	Semiconductors	C	High Climate Impact
10102015	Electronic Components	C	High Climate Impact
10102020	Production Technology Equipment	C	High Climate Impact
10102030	Computer Hardware	C	High Climate Impact
10102035	Electronic Office Equipment	C	High Climate Impact
15101010	Telecommunications Equipment	C	High Climate Impact
15102010	Cable Television Services	J	Low Climate Impact
15102015	Telecommunications Services	J	Low Climate Impact
20101010	Health Care Providers	Q	Low Climate Impact
20101020	Health Care Management Services	Q	Low Climate Impact
20101025	Health Care Services	Q	Low Climate Impact
20101030	Health Care: Misc.	Q	Low Climate Impact
20102010	Medical Equipment	C	High Climate Impact
20102015	Medical Supplies	C	High Climate Impact
20102020	Medical Services	Q	Low Climate Impact
20103010	Biotechnology	M	Low Climate Impact
20103015	Pharmaceuticals	C	High Climate Impact

ICB 4	Name	NACE	Classification
20103020	Marijuana Producers	C	High Climate Impact
30101010	Banks	K	Low Climate Impact
30201020	Consumer Lending	K	Low Climate Impact
30201025	Mortgage Finance	K	Low Climate Impact
30201030	Financial Data Providers	K	Low Climate Impact
30202000	Diversified Financial Services	K	Low Climate Impact
30202010	Asset Managers and Custodians	K	Low Climate Impact
30202015	Investment Services	K	Low Climate Impact
30203000	Mortgage REITs: Diversified	L	High Climate Impact
30203010	Mortgage REITs: Commercial	L	High Climate Impact
30203020	Mortgage REITs: Residential	L	High Climate Impact
30204000	Closed End Investments	K	Low Climate Impact
30205000	Open End and Miscellaneous Investment Vehicles	K	Low Climate Impact
30301010	Life Insurance	K	Low Climate Impact
30302010	Full Line Insurance	K	Low Climate Impact
30302015	Insurance Brokers	K	Low Climate Impact
30302020	Reinsurance	K	Low Climate Impact
30302025	Property and Casualty Insurance	K	Low Climate Impact
35101010	Real Estate Holding and Development	L	High Climate Impact
35101015	Real Estate Services	L	High Climate Impact
35102000	Diversified REITs	L	High Climate Impact
35102010	Health Care REITs	L	High Climate Impact
35102015	Hotel and Lodging REITs	L	High Climate Impact
35102020	Industrial REITs	L	High Climate Impact
35102025	Infrastructure REITs	L	High Climate Impact
35102030	Office REITs	L	High Climate Impact
35102040	Residential REITs	L	High Climate Impact
35102045	Retail REITs	L	High Climate Impact
35102050	Storage REITs	H	High Climate Impact
35102060	Timber REITs	A	High Climate Impact
35102070	Other Specialty REITs	L	High Climate Impact
40101010	Auto Services	G	High Climate Impact
40101015	Tires	C	High Climate Impact
40101020	Automobiles	C	High Climate Impact
40101025	Auto Parts	C	High Climate Impact
40201010	Education Services	P	Low Climate Impact
40201020	Funeral Parlors and Cemetery	S	Low Climate Impact
40201040	Rental and Leasing Services: Consumer	N	Low Climate Impact
40201060	Vending and Catering Service	I	Low Climate Impact

ICB 4	Name	NACE	Classification
40201070	Consumer Services: Misc.	G	High Climate Impact
40202010	Home Construction	F	High Climate Impact
40202015	Household Furnishings	C	High Climate Impact
40202020	Household Appliance	C	High Climate Impact
40202025	Household Equipment and Products	C	High Climate Impact
40203010	Consumer Electronics	C	High Climate Impact
40203040	Electronic Entertainment	C	High Climate Impact
40203045	Toys	C	High Climate Impact
40203050	Recreational Products	C	High Climate Impact
40203055	Recreational Vehicles and Boats	C	High Climate Impact
40203060	Photography	C	High Climate Impact
40204020	Clothing and Accessories	C	High Climate Impact
40204025	Footwear	C	High Climate Impact
40204030	Luxury Items	C	High Climate Impact
40204035	Cosmetics	C	High Climate Impact
40301010	Entertainment	J	Low Climate Impact
40301020	Media Agencies	J	Low Climate Impact
40301030	Publishing	J	Low Climate Impact
40301035	Radio and TV Broadcasters	J	Low Climate Impact
40401010	Diversified Retailers	G	High Climate Impact
40401020	Apparel Retailers	G	High Climate Impact
40401025	Home Improvement Retailers	G	High Climate Impact
40401030	Specialty Retailers	G	High Climate Impact
40501010	Airlines	H	High Climate Impact
40501015	Travel and Tourism	H	High Climate Impact
40501020	Casinos and Gambling	R	Low Climate Impact
40501025	Hotels and Motels	I	Low Climate Impact
40501030	Recreational Services	R	Low Climate Impact
40501040	Restaurants and Bars	R	Low Climate Impact
45101010	Brewers	C	High Climate Impact
45101015	Distillers and Vintners	C	High Climate Impact
45101020	Soft Drinks	C	High Climate Impact
45102010	Farming, Fishing, Ranching and Plantations	A	High Climate Impact
45102020	Food Products	C	High Climate Impact
45102030	Fruit and Grain Processing	C	High Climate Impact
45102035	Sugar	C	High Climate Impact
45103010	Tobacco	C	High Climate Impact
45201010	Food Retailers and Wholesalers	G	High Climate Impact
45201015	Drug Retailers	G	High Climate Impact

ICB 4	Name	NACE	Classification
45201020	Personal Products	C	High Climate Impact
45201030	Nondurable Household Products	C	High Climate Impact
45201040	Miscellaneous Consumer Staple Goods	G	High Climate Impact
50101010	Construction	F	High Climate Impact
50101015	Engineering and Contracting Services	F	High Climate Impact
50101020	Building, Roofing/Wallboard and Plumbing	C	High Climate Impact
50101025	Building: Climate Control	C	High Climate Impact
50101030	Cement	C	High Climate Impact
50101035	Building Materials: Other	C	High Climate Impact
50201010	Aerospace	C	High Climate Impact
50201020	Defense	C	High Climate Impact
50202010	Electrical Components	C	High Climate Impact
50202020	Electronic Equipment: Control and Filter	C	High Climate Impact
50202025	Electronic Equipment: Gauges and Meters	C	High Climate Impact
50202030	Electronic Equipment: Pollution Control	C	High Climate Impact
50202040	Electronic Equipment: Other	C	High Climate Impact
50203000	Diversified Industrials	C	High Climate Impact
50203010	Paints and Coatings	C	High Climate Impact
50203015	Plastics	C	High Climate Impact
50203020	Glass	C	High Climate Impact
50203030	Containers and Packaging	C	High Climate Impact
50204000	Machinery: Industrial	C	High Climate Impact
50204010	Machinery: Agricultural	C	High Climate Impact
50204020	Machinery: Construction and Handling	C	High Climate Impact
50204030	Machinery: Engines	C	High Climate Impact
50204040	Machinery: Tools	C	High Climate Impact
50204050	Machinery: Specialty	C	High Climate Impact
50205010	Industrial Suppliers	G	High Climate Impact
50205015	Transaction Processing Services	K	Low Climate Impact
50205020	Professional Business Support Services	N	Low Climate Impact
50205025	Business Training and Employment Agencies	N	Low Climate Impact
50205030	Forms and Bulk Printing Services	C	High Climate Impact
50205040	Security Services	N	Low Climate Impact
50206010	Trucking	H	High Climate Impact
50206015	Commercial Vehicles and Parts	C	High Climate Impact
50206020	Railroads	H	High Climate Impact
50206025	Railroad Equipment	C	High Climate Impact
50206030	Marine Transportation	H	High Climate Impact
50206040	Delivery Services	H	High Climate Impact

ICB 4	Name	NACE	Classification
50206050	Commercial Vehicle-Equipment Leasing	N	Low Climate Impact
50206060	Transportation Services	H	High Climate Impact
55101000	Diversified Materials	C	High Climate Impact
55101010	Forestry	A	High Climate Impact
55101015	Paper	C	High Climate Impact
55101020	Textile Products	C	High Climate Impact
55102000	General Mining	B	High Climate Impact
55102010	Iron and Steel	C	High Climate Impact
55102015	Metal Fabricating	C	High Climate Impact
55102035	Aluminum	C	High Climate Impact
55102040	Copper	B	High Climate Impact
55102050	Nonferrous Metals	B	High Climate Impact
55103020	Diamonds and Gemstones	B	High Climate Impact
55103025	Gold Mining	B	High Climate Impact
55103030	Platinum and Precious Metals	B	High Climate Impact
55201000	Chemicals: Diversified	C	High Climate Impact
55201010	Chemicals and Synthetic Fibers	C	High Climate Impact
55201015	Fertilisers	C	High Climate Impact
55201020	Specialty Chemicals	C	High Climate Impact
60101000	Integrated Oil and Gas	C	High Climate Impact
60101010	Oil: Crude Producers	B	High Climate Impact
60101015	Offshore Drilling and Other Services	B	High Climate Impact
60101020	Oil Refining and Marketing	C	High Climate Impact
60101030	Oil Equipment and Services	B	High Climate Impact
60101035	Pipelines	H	High Climate Impact
60101040	Coal	B	High Climate Impact
60102010	Alternative Fuels	C	High Climate Impact
60102020	Renewable Energy Equipment	C	High Climate Impact
65101010	Alternative Electricity	D	High Climate Impact
65101015	Conventional Electricity	D	High Climate Impact
65102000	Multi-Utilities	D	High Climate Impact
65102020	Gas Distribution	D	High Climate Impact
65102030	Water	E	High Climate Impact
65103035	Waste and Disposal Services	E	High Climate Impact

Appendix D

Status of indices

The FTSE JPX Net Zero Japan Index Series are calculated in real time.

The Official Closing Price for the FTSE JPX Net Zero Index Series is 15:00.

The official opening and closing hours of the FTSE JPX Net Zero Index Series are set out below:

Index	Open	Close
FTSE JPX Net Zero Japan 500 Index	09:00	15:00
FTSE JPX Net Zero Japan 200 Index	09:00	15:00

All times are local Japan Time.

Variations to the official hours of the Indices are published by FTSE Russell.

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

[Real Time Status Definitions.pdf](#)

Appendix E

Further information

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

[Glossary.pdf](#)

[Glossary ESG.pdf](#)

The FTSE Russell Sustainable Investment Metrics website can be found using the following link:

[ESG Metrics](#)

For further information on the FTSE JPX Net Zero Japan Index Series visit www.lseg.com/en/ftse-russell/ or e-mail info@ftserussell.com. Contact details can also be found on this website.

Website: www.lseg.com/en/ftse-russell/

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