

# INDEX GUIDELINE

SOLACTIVE L&G ESG INDEX FAMILY

Version 1.3

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## TABLE OF CONTENTS

Introduction .....	3
1. Index Specifications .....	4
1.1. Scope of the Index .....	4
1.2. Identifiers and Publication .....	5
1.3. Initial Level of the Index .....	7
1.4. Prices and calculation frequency .....	7
1.5. Licensing.....	8
2. Index Selection .....	9
2.1. Index Universe Requirements.....	9
2.2. Selection of the Index Components .....	9
2.3. Weighting of the Index Components.....	12
2.3.1. Tilted Weights.....	12
2.3.2. Carbon ReducTion .....	14
3. Rebalance .....	17
3.1. Ordinary Rebalance .....	17
3.2. Extraordinary Rebalance .....	17
4. Calculation of the Index .....	18
4.1. Index formula .....	18
4.2. Accuracy .....	18
4.3. Adjustments.....	18
4.4. Corporate actions.....	19
4.5. Recalculation.....	20
4.6. Market Disruption.....	20
5. Miscellaneous .....	21
5.1. Discretion .....	21
5.2. Methodology Review.....	21
5.3. Changes in calculation method.....	21
5.4. Termination .....	22
5.5. Oversight .....	22
6. Definitions.....	23
Contact.....	28



## INTRODUCTION

This document (the "GUIDELINE") is to be used as a guideline with regard to the composition, calculation and maintenance of the Solactive L&G ESG Index Family (the "INDEX"). Any amendments to the rules made to the GUIDELINE are approved by the OVERSIGHT COMMITTEE specified in Section 5.5. The INDEX is owned, calculated, administered and published by Solactive AG ("SOLACTIVE") assuming the role as administrator (the "INDEX ADMINISTRATOR") under the Regulation (EU) 2016/1011 (the "BENCHMARK REGULATION" or "BMR"). The name "Solactive" is trademarked.

*The text uses defined terms which are formatted with "SMALL CAPS". Such Terms shall have the meaning assigned to them as specified in Section 6 (Definitions).*

The GUIDELINE and the policies and methodology documents referenced herein contain the underlying principles and rules regarding the structure and operation of the INDEX. SOLACTIVE does not offer any explicit or tacit guarantee or assurance, neither pertaining to the results from the use of the INDEX nor the level of the INDEX at any certain point in time nor in any other respect. SOLACTIVE strives to the best of its ability to ensure the correctness of the calculation. There is no obligation for SOLACTIVE – irrespective of possible obligations to issuers – to advise third parties, including investors and/or financial intermediaries, of any errors in the INDEX. The publication of the INDEX by SOLACTIVE does not constitute a recommendation for capital investment and does not contain any assurance or opinion of SOLACTIVE regarding a possible investment in a financial instrument based on this INDEX.



# 1. INDEX SPECIFICATIONS

## 1.1. SCOPE OF THE INDEX

Category	Description
Asset Class	Equity
Strategy	<p>The Solactive L&amp;G ESG Index Family (the "Index Family") is an index family provided by Solactive and is calculated and distributed by Solactive. The indices are designed by Solactive and Legal &amp; General Investment Management ("L&amp;G") to tilt the parent universe using the process described below in order to increase the exposure to companies with higher L&amp;G ESG scores. The L&amp;G ESG scores are created by L&amp;G using a number of metrics including:</p> <ol style="list-style-type: none"> <li>1. Environmental</li> <li>2. Social</li> <li>3. Corporate Governance</li> <li>4. Transparency</li> </ol> <p>These metrics are reviewed semi-annually by L&amp;G in order to incorporate the most reliable and relevant inputs when calculating the aggregate L&amp;G ESG Score. Additionally, there is an annual review of the scoring methodology.</p> <p>In addition, the components are weighted based on an optimized algorithm such as to ensure that the portfolio is in line with the climate-neutrality by 2050 objective.</p>
Regional Allocation	Developed and Emerging Markets <sup>1</sup>
Rebalancing Fee	NA
Rebalancing Frequency	Semiannually

<sup>1</sup> Based on the definition of Developed and Emerging Markets as per Solactive Country Classification Framework, published under: [www.solactive.com](http://www.solactive.com)



## 1.2. IDENTIFIERS AND PUBLICATION

The INDEX is published under the following identifiers:

Name	ISIN	Currency	Type	RIC	BBG ticker
Solactive L&G ESG North America PR Index	DE000SLA5HD1	GBP	PR	.SOESGNAP	NA
Solactive L&G ESG North America NTR Index	DE000SLA5HE9	GBP	NTR	.SOESGNAN	NA
Solactive L&G ESG North America GTR Index	DE000SLA5HF6	GBP	GTR	.SOESGNAG	NA
Solactive L&G ESG Europe ex UK PR Index	DE000SLA5HG4	GBP	PR	.SOESGEUP	NA
Solactive L&G ESG Europe ex UK NTR Index	DE000SLA5HH2	GBP	NTR	.SOESGEUN	NA
Solactive L&G ESG Europe ex UK GTR Index	DE000SLA5HJ8	GBP	GTR	.SOESGEUG	NA
Solactive L&G ESG UK PR Index	DE000SLA5HK6	GBP	PR	.SOESGUKP	NA
Solactive L&G ESG UK NTR Index	DE000SLA5HL4	GBP	NTR	.SOESGUKN	NA
Solactive L&G ESG UK GTR Index	DE000SLA5HM2	GBP	GTR	.SOESGUKG	NA
Solactive L&G ESG APAC ex Japan PR Index	DE000SLA5HN0	GBP	PR	.SOESGAPP	NA
Solactive L&G ESG APAC ex Japan NTR Index	DE000SLA5HP5	GBP	NTR	.SOESGAPN	NA
Solactive L&G ESG APAC ex Japan GTR Index	DE000SLA5HQ3	GBP	GTR	.SOESGAPG	NA
Solactive L&G ESG Japan PR Index	DE000SLA5HR1	GBP	PR	.SOESGJPP	NA
Solactive L&G ESG Japan NTR Index	DE000SLA5HS9	GBP	NTR	.SOESGJPN	NA
Solactive L&G ESG Japan GTR Index	DE000SLA5HU5	GBP	GTR	.SOESGJPG	NA
Solactive L&G Developed Markets PR Index	DE000SLA6W76	USD	PR	.SOESGDMP	NA
Solactive L&G Developed Markets NTR Index	DE000SLA6W84	USD	NTR	.SOESGDMN	NA
Solactive L&G Developed Markets GTR Index	DE000SLA6W92	USD	GTR	.SOESGDMG	NA
Solactive L&G Developed Markets PR Index GBP	DE000SLA6ZD1	GBP	PR	.SOESGDGP	NA



Solactive L&G Developed Markets NTR Index GBP	DE000SLA6ZE9	GBP	NTR	.SOESGDGN	NA
Solactive L&G Developed Markets GTR Index GBP	DE000SLA6ZF6	GBP	GTR	.SOESGDGG	NA
Solactive L&G Developed Markets ex UK PR Index	DE000SLA6X59	USD	PR	.SOESGDBP	NA
Solactive L&G Developed Markets ex UK NTR Index	DE000SLA6X67	USD	NTR	.SOESGDBN	NA
Solactive L&G Developed Markets ex UK GTR Index	DE000SLA6X75	USD	GTR	.SOESGDBG	NA
Solactive L&G ESG Developed Markets ex UK GBP PR Index	DE000SLA9P80	GBP	PR	.SOESDBPP	NA
Solactive L&G ESG Developed Markets ex UK GBP NTR Index	DE000SLA9QA0	GBP	NTR	.SOESDBPN	NA
Solactive L&G ESG Developed Markets ex UK GBP GTR Index	DE000SLA9P98	GBP	GTR	.SOESDBPG	NA
Solactive L&G ESG Emerging Markets PR Index	DE000SLA7Z56	GBP	PR	.SOESGEMP	NA
Solactive L&G ESG Emerging Markets NTR Index	DE000SLA7Z64	GBP	NTR	.SOESGEMN	NA
Solactive L&G ESG Emerging Markets GTR Index	DE000SLA7Z72	GBP	GTR	.SOESGEMG	NA
Solactive L&G ESG Global Markets PR Index	DE000SLA9LR5	GBP	PR	.SOESGGMP	NA
Solactive L&G ESG Global Markets NTR Index	DE000SLA9LS3	GBP	NTR	.SOESGGMN	NA
Solactive L&G ESG Global Markets GTR Index	DE000SLA9LU9	GBP	GTR	.SOESGGMT	NA
Solactive L&G ESG Developed Markets PR Index EUR	DE000SLOJB28	EUR	PR	.SOESGDEP	NA
Solactive L&G ESG Developed Markets NTR Index EUR	DE000SLOJB36	EUR	NTR	.SOESGDEN	NA
Solactive L&G ESG Developed Markets GTR Index EUR	DE000SLOJB44	EUR	GTR	.SOESGDET	NA
Solactive L&G ESG Developed Markets ex UK EUR Index NTR	DE000SLOHU27	EUR	NTR	.SOESDEUN	NA
Solactive L&G ESG Developed Markets ex UK EUR Index PR	DE000SLOJ700	EUR	PR	.SOESDEUP	NA



Solactive L&G ESG Developed Markets ex UK EUR Index TR	DE000SLOJ718	EUR	GTR	.SOESDEUT	NA
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\*[PR][NTR][GTR] means that the Index is calculated as price return, net total return and gross total return Index as described in the Equity Index Methodology, which is available on the SOLACTIVE website: <https://www.solactive.com/documents/equity-index-methodology/>

The INDEX is published on the website of the INDEX ADMINISTRATOR (<http://www.solactive.com>) and is, in addition, available via the price marketing services of Boerse Stuttgart GmbH and may be distributed to all of its affiliated vendors. Each vendor decides on an individual basis as to whether it will distribute or display the INDEX via its information systems.

Any publication in relation to the INDEX (e.g. notices, amendments to the GUIDELINE) will be available at the website of the INDEX ADMINISTRATOR: <https://www.solactive.com/news/announcements/>.

### 1.3. INITIAL LEVEL OF THE INDEX

The initial level of the INDEX on the 02/05/2012, the START DATE, is 100. Historical values from the 23/05/2018 the LIVE DATE, will be recorded in accordance with Article 8 of the BMR. Levels of the INDEX published for a period prior to the LIVE DATE have been back-tested.

The Solactive L&G ESG Emerging Markets Index has its LIVE DATE of 23/05/2019 and START DATE of 08/05/2017.

The Solactive L&G ESG Global Markets Index has its LIVE DATE of 17/10/2019 and START DATE of 08/05/2017.

The Solactive L&G ESG Developed Markets Index has its LIVE DATE of 22/10/2018 and START DATE of 02/05/2012.

### 1.4. PRICES AND CALCULATION FREQUENCY

The level of the INDEX is calculated on each CALCULATION DAY from 9:00 a.m. to 10:50 p.m. CET based on the TRADING PRICES on the EXCHANGES on which the INDEX COMPONENTS are listed. TRADING PRICES of INDEX COMPONENTS not listed in the INDEX CURRENCY are converted using the current Intercontinental Exchange (the "ICE") spot foreign exchange rate. Should there be no current TRADING PRICE for an INDEX COMPONENT, the later of: (i) the most recent CLOSING PRICE; or (ii) the last available TRADING PRICE for the preceding TRADING DAY is used in the calculation.

In addition to the intraday calculation a closing level of the INDEX for each CALCULATION DAY is also calculated. This closing level is based on the CLOSING PRICES for the INDEX COMPONENTS on the respective EXCHANGES on which the INDEX COMPONENTS are listed. The CLOSING PRICES of INDEX COMPONENTS not listed in the INDEX CURRENCY are converted using the 4pm London time WM Fixing quoted by Reuters. If there is no 4pm London time WM Fixing for the relevant CALCULATION DAY, the last available 4pm London time WM Fixing will be used for the closing level calculation.



## 1.5. LICENSING

Licenses to use the INDEX as the underlying value for financial instruments, investment funds and financial contracts may be issued to stock exchanges, banks, financial services providers and investment houses by SOLACTIVE.





## 2. INDEX SELECTION

On each SELECTION DAY, the INDEX ADMINISTRATOR will revise the composition of the INDEX.

In a first step, the INDEX ADMINISTRATOR determines the INDEX UNIVERSE in accordance with Section 2.1. The INDEX UNIVERSE comprises all those financial instruments which fulfill the INDEX UNIVERSE REQUIREMENTS (as specified in Section 2.1) and will constitute a starting pool from which the components of the INDEX will be selected. Based on this INDEX UNIVERSE, the new composition of the INDEX will be determined by applying the rules outlined in Section 2.2.

Each new INDEX COMPONENT will be assigned a weight as described in Section 2.3.

### 2.1. INDEX UNIVERSE REQUIREMENTS

The INDEX UNIVERSE is comprised of all financial instruments which fulfill the below requirements (the "INDEX UNIVERSE REQUIREMENTS"):

- Is a component of the **GBS INDEX UNIVERSE** of the Solactive GBS Global Markets Large & Mid Cap Index (ISIN: DE000SLA7729) (the "REFERENCE INDEX"), as published on the Solactive website: <https://www.solactive.com> or
- Is a component of the **GBS INDEX UNIVERSE** of the Solactive GBS United Kingdom All Cap Index (ISIN: DE000SLA4X28) (the "REFERENCE INDEX"), as published on the Solactive website: <https://www.solactive.com> in case of the Solactive L&G ESG UK Index.

The determination of the INDEX UNIVERSE is fully rule-based and the INDEX ADMINISTRATOR cannot make any discretionary decisions.

### 2.2. SELECTION OF THE INDEX COMPONENTS

Based on the INDEX UNIVERSE, the initial composition of the INDEX as well as any selection for an ordinary rebalance is determined on the SELECTION DAY in accordance with the following rules (the "INDEX COMPONENT REQUIREMENTS"):

1. The securities of the *Solactive GBS Global Markets Large & Mid Cap Index* are divided into different regional baskets which are then used to determine the regional and supra-regional INDICES. The respective regional indices are also to be considered as PARENT INDICES for the purpose of the weighting in Section 2.3. The regional basket construction is done based on the country allocation which in turn relies on Solactive's country assignment procedure as performed during the selection of the Solactive GBS family. This is described in the guideline for the Solactive GBS family published under: [Solactive Global Benchmark Series Guideline](#).



The regions considered and their construction is detailed below in the two tables below.

#### Developed Markets segment

Country	Regional Basket	Regional/Country Index
Canada, United States	North America	Solactive L&G ESG North America Index
Austria, Belgium, Switzerland, Germany, Denmark, Spain, Finland, France, Ireland, Italy, Netherlands, Norway, Portugal, Sweden	Europe ex United Kingdom	Solactive L&G ESG Europe ex UK Index
United Kingdom	United Kingdom	Solactive L&G ESG UK Index
Australia, Hong Kong, New Zealand, Singapore	DM APAC ex Japan	Solactive L&G ESG APAC ex Japan Index
Japan	Japan	Solactive L&G ESG Japan Index

#### Emerging Markets segment

Country	Regional Basket	Regional/Country Index
Argentina, Brazil, Chile, Colombia, Mexico, Peru	Americas	Solactive L&G ESG Emerging Markets Index
The United Arab Emirates, Czech Republic, Egypt, Greece, Hungary, Kuwait, Poland, Qatar, Russia, Saudi Arabia, Turkey, South Africa	EMEA	
China, Indonesia, India, South Korea, Malaysia, Philippines, Pakistan, Thailand, Taiwan	EM APAC	

For clarification, the remaining securities from the *Solactive GBS United Kingdom All Cap Index* are the ones considered for the construction of the Solactive L&G ESG UK Index and the remaining securities of



*Solactive GBS Global Markets Large & Mid Cap Index* assigned to UK are only considered for the construction of the Solactive L&G ESG Developed Markets Index.

The PARENT INDEX for the Solactive L&G ESG Developed Markets Index consists of the combination of the Developed Markets segment Regional Baskets (i.e. North America, Europe ex United Kingdom, United Kingdom, DM APAC ex Japan and Japan).

The PARENT INDEX for the Solactive L&G ESG Developed Markets ex UK Index consists of the combination of the Developed Markets segment Regional Baskets (i.e. North America, Europe ex United Kingdom, DM APAC ex Japan and Japan).

The PARENT INDEX for the Solactive L&G ESG Global Markets Index consists of the combination of the Global Markets segment Regional Baskets (i.e. North America, Europe ex United Kingdom, United Kingdom, DM APAC ex Japan, Japan, and Emerging Markets).

The PARENT INDEX for the Solactive L&G ESG Emerging Markets Index consists of the combination of the Emerging Markets segment Regional Baskets (i.e. Americas, EMEA, EM APAC).

2. Any security included on the Exclusion List as determined by Solactive, based on selection data and research provided by Legal & General Investment Management (the "DATA PROVIDER") is further removed.

The Exclusion List is constructed by capturing those securities which exhibit a significant involvement in the following ESG Theme:

Item	Theme	Methodology	Data Provider
1	FWPL	Companies are included on the FWPL	Legal and General Investment Management

The FWPL comprises companies which are (1) involved in the manufacture of controversial weapons (2) persistent violators of the UN Global Compact and/or (3) pure coal mining companies. It is reconstituted by LGIM on a semi-annual basis in March and September. The methodology by reference to which the FWPL is constructed is available here: [www.lgim.com/files/\\_document-library/capabilities/future-world-protection-list-public-methodology.pdf](http://www.lgim.com/files/_document-library/capabilities/future-world-protection-list-public-methodology.pdf)



The respective regional baskets after the exclusion will represent the INVESTABLE UNIVERSE for each INDEX to the purpose of Weighting of the Index Components as described in Section 2.3

3. For each remaining security an adjusted Market Capitalization is calculated by tilting the FREE FLOAT MARKET CAPITALIZATION of each security as described below:

$$MCAP_{adj,i} = MCAP_i \cdot (1 + ESG\ Score_i)^2$$

where:

$MCAP_{adj,i}$  is the tilted FREE FLOAT MARKET CAPITALIZATION of security  $i$

$MCAP_i$  is the FREE FLOAT MARKET CAPITALIZATION of security  $i$

$ESG\ Score_i$  is the L&G ESG Score

The L&G ESG scores are created by L&G using a number of metrics including:

1. Environmental
2. Social
3. Corporate Governance
4. Transparency

The metric is reviewed semi-annually by L&G in order to incorporate the most reliable and relevant inputs when calculating the aggregate L&G ESG Score. Additionally, there is an annual review of the scoring methodology.

The selection of the INDEX COMPONENTS is fully rule-based and the INDEX ADMINISTRATOR cannot make any discretionary decision.

## 2.3. WEIGHTING OF THE INDEX COMPONENTS

### 2.3.1. TILTED WEIGHTS

On each SELECTION DAY each INDEX COMPONENT is assigned a weight as described below.

1. Based on the tilted FREE FLOAT MARKET CAPITALIZATION calculated above, each security is assigned a weight within its corresponding Regional Basket based on the formula below:



$$w_{adj,i} = \frac{MCAP_{adj,i}}{\sum_{i=1}^N MCAP_{adj}}$$

where:

$MCAP_{adj,i}$  is the tilted FREE FLOAT MARKET CAPITALIZATION of security  $i$

$w_{adj,i}$  is the tilted weight of security  $i$  within its regional basket

$N$  is the number of securities in the respective regional basket

2. The obtained weights are then modified in such a way as to fulfil the requirements below:
  - a. The weight of any sector should be not higher than +2% and not lower than -3% from the weight of the same sector within the INDEX UNIVERSE on the SELECTION DAY. In case a breach happens, the weight of the sector will be decreased or increased to fulfil the requirement by increasing or decreasing the weight of each security within the respective sector.
  - b. The individual weight of any security should not differ more than 3% from and not exceed 20 times the weight as determined on free float market capitalization (except for the securities which are removed from the index, these will always receive a weight of zero in the final Index). In case such breaches exist, the excess weight will be redistributed proportionally within the sector of the relevant security.

The Emerging Markets regional baskets are then combined to create a supra-regional Emerging Markets INDEX based on the formula below:

$$w_{SR,i} = w_{adj,i} * w_{reg,j}$$

where:

$w_{SR,i}$  is the weight of security  $i$  within the relevant supra-regional basket

$w_{adj,i}$  is the adjusted weight of security  $i$  within its regional basket

$w_{reg,j}$  is the aggregated weight of all securities corresponding to the respective regional basket calculated based on FREE FLOAT MARKET CAPITALIZATION

The set of securities and their weights will consist the INTERMEDIATE UNIVERSE, and their weights will be referenced as  $w_{int,i}$ .



## 2.3.2. CARBON REDUCTION

The final weight of each INDEX COMPONENT within its regional (or supra-regional in case of Emerging Markets) INDEX is further determined based on an optimization approach that minimizes the cumulative absolute weight deviation from the INTERMEDIATE UNIVERSE weights on each SELECTION DAY.

On the BASE DAY, it is subject to the following constraints:

- a. Reduce the average weighted CARBON INTENSITY of the INDEX compared to the average weighted CARBON INTENSITY of the PARENT INDEX by at least 50%.
- b. Maximum absolute weight deviation from the weight in the INDEX UNIVERSE of 3%. Individual weights are capped at the minimum between 8% and INDEX UNIVERSE weight \* 20 as well as floored at 0.01%.
- c. The sum of weights which exceed 5% is capped at 35%.
- d. Compared to the INVESTABLE UNIVERSE, the deviation of the sector weights is capped at 2% and floored at 3%.
- e. Compared to the INVESTABLE UNIVERSE, the absolute deviation of the regional weights is capped at 0.5%. (This condition is only applied to the Emerging Markets Index.)

If no solution can be found, the constraints are relaxed in the following order:

- a. Sector constraint: Compared to the INVESTABLE UNIVERSE, the deviation of the sector weights is increased by 0.5% in each direction.
- b. Regional weight constraint: Compared to the INVESTABLE UNIVERSE, absolute deviation of the region weights is capped at 1%. (This condition is only applied to the Emerging Markets Index.)
- c. Single weight constraint: Maximum absolute deviation from the weight in the INDEX UNIVERSE is iteratively increased by 0.25% until a solution is found.

The CARBON INTENSITY of the INDEX UNIVERSE is calculated by weighting the CARBON INTENSITY of the components of the INDEX UNIVERSE by the weight of the respective components within the INDEX UNIVERSE.

On each following SELECTION DAY each INDEX COMPONENT is assigned a weight based on the same objective function, but the algorithm is subject to the following constraints:

- a. A Decarbonization Trajectory is defined by an annual minimum CARBON INTENSITY reduction of 7% compared to the CARBON INTENSITY of the INDEX on the BASE DAY in a geometric progression applied semi-annually. The CARBON INTENSITY of the INDEX is then capped at the minimum of the CARBON INTENSITY of the Decarbonization Trajectory on the SELECTION DAY and 50% of the PARENT INDEX CARBON INTENSITY on the SELECTION DAY.



- b. Maximum absolute weight deviation from the weight in the INDEX UNIVERSE of 3%. Individual Weights are capped at the minimum between 8% and INDEX UNIVERSE weight \* 20 as well as floored at 0.01%.
  - a. An exception is applied for securities with at a CARBON INTENSITY CONTRIBUTION of 20% or more of the of the PARENT INDEX CARBON INTENSITY. Their weight is floored at the maximum of the RELATIVE CARBON INTENSITY TARGET \* PARENT INDEX weight and 0.01%, i.e. the 3% negative deviation to the INDEX UNIVERSE doesn't apply. The weight cap however remains unchanged.
- c. The sum of weights which exceed 5% is capped at 35%.
- d. Compared to the INVESTABLE UNIVERSE, the deviation of the sector weights is capped at 2% and floored at 3%.
  - a. An exception is applied for sectors which have a CARBON INTENSITY greater than 50% of the PARENT INDEX CARBON INTENSITY. Their weight deviation is capped at 3% and floored at 4%.
- e. Compared to the INVESTABLE UNIVERSE, the absolute deviation of the regional weights is capped at 0.5%. (This condition is only applied to the Emerging Markets Index.)

If no solution can be found, the constraints are relaxed mutually and iteratively until a solution is determined:

- a. Sector constraint: Compared to the INVESTABLE UNIVERSE, the deviation of the sector weights is increased by 0.25% in each direction.
- b. Regional weight constraint: Compared to the INVESTABLE UNIVERSE, absolute deviation of the region weights is capped at 1%. (This condition is only applied to INDICES which consist of multiple regions.)
- c. Single weight constraint: Maximum absolute deviation from the weight in the INDEX UNIVERSE is iteratively increased by 0.5% until a solution is found.

### 2.3.3. SUPRA-REGIONAL AGGREGATION

At this step certain further regional baskets are combined to create the Developed Markets, Developed Markets ex United Kingdom and Global Markets supra-regional INDEX based on the formula below:

$$w_{SR,i} = w_{adj,i} * w_{reg,j}$$

where:

$w_{SR,i}$  is the weight of security  $i$  within the relevant supra-regional basket



$w_{adj,i}$  is the adjusted weight of security  $i$  within its regional basket

$w_{reg,j}$  is the aggregated weight of all securities corresponding to the respective regional basket calculated based on FREE FLOAT MARKET CAPITALIZATION





## 3. REBALANCE

### 3.1. ORDINARY REBALANCE

In order to reflect the new selection of the INDEX COMPONENTS determined on the SELECTION DAY (in accordance with Section 2.1 and 2.2) the INDEX is adjusted on the REBALANCE DAY after CLOSE OF BUSINESS.

This is carried out by implementing the shares as determined on the FIXING DAY based on the weights calculated on the SELECTION DAY.

For more information on the rebalance procedure please refer to the Equity Index Methodology, which is incorporated by reference and available on the Solactive website: <https://www.solactive.com/documents/equity-index-methodology/>

SOLACTIVE will publish any changes made to the INDEX COMPONENTS with sufficient notice before the REBALANCE DAY on the SOLACTIVE webpage under the section "Announcement", which is available at <https://www.solactive.com/news/announcements/>

### 3.2. EXTRAORDINARY REBALANCE

The INDEX is not rebalanced extraordinarily.



## 4. CALCULATION OF THE INDEX

### 4.1. INDEX FORMULA

The INDEX is calculated as a price return, net total return and gross total return Index.

The calculation is performed according to the Equity Index Methodology, which is available on the SOLACTIVE website: <https://www.solactive.com/documents/equity-index-methodology/>. The divisor index formula stipulates that the level of the INDEX changes based on the change of the prices of its INDEX COMPONENTS taking into account their weight in the INDEX and any currency conversion in case the price of an INDEX COMPONENT is quoted in a currency other than the INDEX CURRENCY.

Any dividends or other distributions are reinvested across the entire basket of INDEX COMPONENTS by means of a divisor at the opening of the effective date (the so-called ex-date) of the payment of such dividend or other distribution.

A more detailed description of the mechanics of the index calculation formula can be found in the Equity Index Methodology under Section 1.2.

### 4.2. ACCURACY

The level of the INDEX will be rounded to 2 decimal places. Divisors will be rounded to six decimal places. TRADING PRICES and foreign exchange rates will be rounded to six decimal places.

### 4.3. ADJUSTMENTS

Under certain circumstances, an adjustment of the INDEX may be necessary between two regular REBALANCE DAYS. Such adjustment has to be made if a corporate action (as specified in Section 4.4 below) in relation of an INDEX COMPONENT occurs. Such adjustment may have to be done in relation to an INDEX COMPONENT and/or may also affect the number of INDEX COMPONENTS and/or the weighting of certain INDEX COMPONENTS and will be made in compliance with the Solactive Equity Index Methodology, which is incorporated by reference and available on the SOLACTIVE website: <https://www.solactive.com/documents/equity-index-methodology/>.

SOLACTIVE will announce the INDEX adjustment giving a notice period of at least two TRADING DAYS (with respect to the affected INDEX COMPONENT) on the SOLACTIVE website under the Section "Announcements", which is available at <https://www.solactive.com/news/announcements/>. The INDEX adjustments will be implemented on the effective day specified in the respective notice.



## 4.4. CORPORATE ACTIONS

As part of the INDEX maintenance SOLACTIVE will consider various events – also referred to as corporate actions – which result in an adjustment to the INDEX between two regular REBALANCE DAYS. Such events have a material impact on the price, weighting or overall integrity of INDEX COMPONENTS. Therefore, they need to be accounted for in the calculation of the INDEX. Corporate actions will be implemented from the cum-day to the ex-day of the corporate action, so that the adjustment to the INDEX coincides with the occurrence of the price effect of the respective corporate action.

Adjustments to the INDEX to account for corporate actions will be made in compliance with the Equity Index Methodology, which is available on the SOLACTIVE website: <https://www.solactive.com/documents/equity-index-methodology/>. This document contains for each corporate action a brief definition and specifies the relevant adjustment to the INDEX variables.

While SOLACTIVE aims at creating and maintaining its methodology for the treatment of corporate actions as generic and transparent as possible and in line with regulatory requirements, it retains the right in accordance with the Equity Index Methodology to deviate from these standard procedures in case of any unusual or complex corporate action or if such a deviation is made to preserve the comparability and representativeness of the INDEX over time.

SOLACTIVE considers the following, but not conclusive, list of corporate actions as relevant for the INDEX maintenance:

- > Cash Distributions (e.g. payment of a dividend)
- > Stock distributions (e.g. payment of a dividend in form of additional shares)
- > Stock distributions of another company (e.g. payment of a dividend in form of additional shares of another company (e.g. of a subsidiary))
- > Share splits (company's present shares are divided and therefore multiplied by a given factor)
- > Reverse splits (company's present shares are effectively merged)
- > Capital increases (such as issuing additional shares)
- > Share repurchases (a company offer its shareholders the option to sell their shares to a fixed price)
- > Spin-offs (the company splits its business activities into two or more entities and distributes new equity shares in the created entities to the shareholders of the former entity)
- > Mergers & Acquisitions (transaction in which the ownership of a company (or other business organizations) are transferred or consolidated with other entities, e.g. fusion of two or more separate companies into one entity)
- > Delistings (company's shares are no longer publicly traded at a stock exchange)
- > Nationalization of a company (effective control of a legal entity is taken over by a state)
- > Insolvency



## 4.5. RECALCULATION

SOLACTIVE makes the greatest possible efforts to accurately calculate and maintain its indices. However, errors in the determination process may occur from time to time for variety reasons (internal or external) and therefore, cannot be completely ruled out. SOLACTIVE endeavors to correct all errors that have been identified within a reasonable period of time. The understanding of “a reasonable period of time” as well as the general measures to be taken are generally depending on the underlying and is specified in the Solactive Correction Policy, which is incorporated by reference and available on the SOLACTIVE website: <https://www.solactive.com/documents/correction-policy/>.

## 4.6. MARKET DISRUPTION

In periods of market stress SOLACTIVE calculates its indices following predefined and exhaustive arrangements as described in the Solactive Disruption Policy, which is incorporated by reference and available on the SOLACTIVE website: <https://www.solactive.com/documents/disruption-policy/>. Such market stress can arise due to a variety of reasons, but generally results in inaccurate or delayed prices for one or more INDEX COMPONENTS. The determination of the INDEX may be limited or impaired at times of illiquid or fragmented markets and market stress.



## 5. MISCELLANEOUS

### 5.1. DISCRETION

Any discretion which may need to be exercised in relation to the determination of the INDEX (for example the determination of the INDEX UNIVERSE (if applicable), the selection of the INDEX COMPONENTS (if applicable) or any other relevant decisions in relation to the INDEX) shall be made in accordance with strict rules regarding the exercise of discretion or expert judgement.

### 5.2. METHODOLOGY REVIEW

The methodology of the INDEX is subject to regular review, at least annually. In case a need of a change of the methodology has been identified within such review (e.g. if the underlying market or economic reality has changed since the launch of the INDEX, i.e. if the present methodology is based on obsolete assumptions and factors and no longer reflects the reality as accurately, reliably and appropriately as before), such change will be made in accordance with the Solactive Methodology Policy, which is incorporated by reference and available on the SOLACTIVE website: <https://www.solactive.com/documents/methodology-policy/>.

Such change in the methodology will be announced on the SOLACTIVE website under the Section "[Announcement](https://www.solactive.com/news/announcements/)", which is available at <https://www.solactive.com/news/announcements/>. The date of the last amendment of this INDEX is contained in this GUIDELINE.

### 5.3. CHANGES IN CALCULATION METHOD

The application by the INDEX ADMINISTRATOR of the method described in this document is final and binding. The INDEX ADMINISTRATOR shall apply the method described above for the composition and calculation of the INDEX. However, it cannot be excluded that the market environment, supervisory, legal and financial or tax reasons may require changes to be made to this method. The INDEX ADMINISTRATOR may also make changes to the terms and conditions of the INDEX and the method applied to calculate the INDEX that it deems to be necessary and desirable in order to prevent obvious or demonstrable error or to remedy, correct or supplement incorrect terms and conditions. The INDEX ADMINISTRATOR is not obliged to provide information on any such modifications or changes. Despite the modifications and changes, the INDEX ADMINISTRATOR will take the appropriate steps to ensure a calculation method is applied that is consistent with the method described above.



## 5.4. TERMINATION

SOLACTIVE makes the greatest possible efforts to ensure the resilience and continued integrity of its indices over time. Where necessary, SOLACTIVE follows a clearly defined and transparent procedure to adapt Index methodologies to changing underlying markets (see Section 5.2 "Methodology Review") in order to maintain continued reliability and comparability of the indices. Nevertheless, if no other options are available the orderly cessation of the INDEX may be indicated. This is usually the case when the underlying market or economic reality, which an index is set to measure or to reflect, changes substantially and in a way not foreseeable at the time of inception of the index, the index rules, and particularly the selection criteria, can no longer be applied coherently or the index is no longer used as the underlying value for financial instruments, investment funds and financial contracts.

SOLACTIVE has established and maintains clear guidelines on how to identify situations in which the cessation of an index is unavoidable, how stakeholders are to be informed and consulted and the procedures to be followed for a termination or the transition to an alternative index. Details are specified in the Solactive Termination Policy, which is incorporated by reference and available on the SOLACTIVE website: <https://www.solactive.com/documents/termination-policy/>.

## 5.5. OVERSIGHT

An oversight committee composed of staff from SOLACTIVE and its subsidiaries (the "OVERSIGHT COMMITTEE") is responsible for decisions regarding any amendments to the rules of the INDEX. Any such amendment, which may result in an amendment of the GUIDELINE, must be submitted to the OVERSIGHT COMMITTEE for prior approval and will be made in compliance with the Methodology Policy, which is available on the SOLACTIVE website: <https://www.solactive.com/documents/methodology-policy/>.



## 6. DEFINITIONS

“Base Day” is defined as the 8<sup>th</sup> of April 2021.

“BENCHMARK REGULATION” shall have the meaning as defined in Section “Introduction”.

“BMR” shall have the meaning as defined in Section “Introduction”.

“CALCULATION DAY” is every weekday from Monday to Friday.

“CARBON INTENSITY” on the SELECTION DAY is calculated as:

$$\text{CARBON INTENSITY} = \frac{\text{GHG}}{\text{EVIC}}$$

If the CARBON INTENSITY is not computable for a company due to missing data, the company receives the median CARBON INTENSITY of all the securities in the same industry. If the company is not classified in an industry, the company receives the median CARBON INTENSITY of all companies classified in an industry.

If the simple average EVIC of the PARENT INDEX has increased or decreased during the last calendar year, the EVIC of an INDEX COMPONENT shall be adjusted by an adjustment factor. The factor is calculated as the average EVIC of the PARENT INDEX at the end of the latest calendar year, divided by the average EVIC of the PARENT INDEX at the end of the previous calendar year.

“CARBON INTENSITY CONTRIBUTION” in respect of a given security, on the SELECTION DAY is calculated as:

$$\text{CARBON INTENSITY} * \text{PARENT INDEX weight}$$

“CLOSE OF BUSINESS” is the calculation time of the closing level of the INDEX as outlined in Section 1.4.

The “CLOSING PRICE” in respect of an INDEX COMPONENT and a TRADING DAY is a security's final regular-hours TRADING PRICE published by the EXCHANGE and determined in accordance with the EXCHANGE regulations. If the EXCHANGE has no or has not published a CLOSING PRICE in accordance with the EXCHANGE rules for an INDEX COMPONENT, the last TRADING PRICE will be used.

“DATA PROVIDER” is ISS and Legal & General Investment Management. For more information, please visit: <https://www.issgovernance.com/>, and <https://www.lgim.com/>.

“ELIGIBLE REBALANCE DAY” is each day that is a TRADING DAY at the New York Stock Exchange, the London Stock Exchange, the EUREX Exchange, and the Tokyo Stock Exchange.

“EVIC” is the Enterprise Value including Cash in USD on the respective SELECTION DAY.

“EXCHANGE” is with respect to the INDEX and every INDEX COMPONENT, the respective exchange where the INDEX COMPONENT has its listing as determined in accordance with the rules in Section “Index Selection”.

“EXCLUSION LIST” shall have the meaning as defined in Section “Index Selection”.

“FIXING DAY” is the SELECTION DAY.



The “FREE FLOAT” is with regard to each of the securities fulfilling the Index Component Requirements on a SELECTION DAY the share class-specific fraction of the total number of shares of such share class issued that are available for trading by market participants and not locked-in by long term holders, as sourced from data vendors.

The “FREE FLOAT MARKET CAPITALIZATION” is with regard to each of the securities fulfilling the Index Component Requirements on a SELECTION DAY the share class-specific free float market capitalization. It is calculated as the multiplication of the shares outstanding in FREE FLOAT (as sourced from data vendors) with the CLOSING PRICE of the share class as of the respective SELECTION DAY.

“GBS INDEX UNIVERSE” is the index composition of the REFERENCE INDEX after the application of the selection criteria specified in Section 2.1 in the guideline of the SOLACTIVE Global Benchmark Series (<https://solactive.com/downloads/Guideline-Solactive-GBS-Benchmark-Series.pdf>).

“GHG” are the Greenhouse Gas Emissions of a company as of the SELECTION DAY. According to the GHG Protocol<sup>2</sup>, the GHG metric is calculated as the sum of Scope 1 and Scope 2 emissions. In particular:

- > Scope 1 emissions: All direct Greenhouse Gas Emissions;
- > Scope 2 emissions: Indirect Greenhouse Gas Emissions from consumption of purchased electricity, heat or steam;

“GUIDELINE” shall have the meaning as defined in Section “Introduction”.

“HIGH CLIMATE IMPACT SECTORS” are sectors that are key to the low-carbon transition. HIGH CLIMATE IMPACT SECTORS are the following:

NACE Section Code	NACE Section Name
A	AGRICULTURE, FORESTRY AND FISHING
B	MINING AND QUARRYING
C	MANUFACTURING
D	ELECTRICITY; GAS; STEAM AND AIR CONDITIONING SUPPLY
E	WATER SUPPLY; SEWERAGE; WASTE MANAGEMENT AND REMEDIATION ACTIVITIES
F	CONSTRUCTION

<sup>2</sup> See Greenhouse Gas Protocol at <https://ghgprotocol.org/>.





G	WHOLESALE AND RETAIL TRADE; REPAIR OF MOTOR VEHICLES AND MOTORCYCLES
H	TRANSPORTATION AND STORAGE
L	REAL ESTATE ACTIVITIES

"INDEX" shall have the meaning as defined in Section "Introduction".

"INDEX ADMINISTRATOR" shall have the meaning as defined in Section "Introduction".

"INDEX COMPONENT" is each security reflected in the INDEX.

"INDEX COMPONENT REQUIREMENTS" shall have the meaning as defined in Section 2.2.

"INDEX CURRENCY" is the currency specified in the column "Currency" in the table in Section 1.2.

"INDEX UNIVERSE REQUIREMENTS" shall have the meaning as defined in Section 2.1.

"INDEX UNIVERSE" is the sum of all financial instruments which fulfill the INDEX UNIVERSE REQUIREMENTS.

"INVESTABLE UNIVERSE" shall have the meaning as defined in Section 2.2.

"LIVE DATE" shall have the meaning as defined in Section 1.3.

"OVERSIGHT COMMITTEE" shall have the meaning as defined in Section 5.5.

"REBALANCE DAY" is the first Wednesday in May and November. If that day is not an ELIGIBLE REBALANCE DAY the REBALANCE DAY will be the immediately following ELIGIBLE REBALANCE DAY.

"RELATIVE CARBON INTENSITY TARGET" is defined as

$$\text{RELATIVE CARBON INTENSITY TARGET} = \frac{\text{Index Carbon Intensity Target}}{\text{Parent Carbon Intensity}}$$

Where

Index Carbon Intensity Target is the minimum of the CARBON INTENSITY of the Decarbonization Trajectory on the SELECTION DAY and 50% of the Parent Index Carbon Intensity on the SELECTION DAY.

Parent Carbon Intensity is the CARBON INTENSITY of the Parent Index on the SELECTION DAY.

"SELECTION DAY" is 20 CALCULATION DAYS before the scheduled REBALANCE DAY.

"SOLACTIVE" shall have the meaning as defined in Section "Introduction".

"START DATE" shall have the meaning as defined in Section 1.3.

"TRADING DAY" is with respect to an INDEX COMPONENT included in the INDEX at the REBALANCE DAY and every INDEX COMPONENT included in the INDEX at the CALCULATION DAY immediately following the REBALANCE DAY (for clarification: this provision is intended to capture the TRADING DAYS for the securities to be included in the INDEX as new INDEX COMPONENTS with close of trading on the relevant EXCHANGE on the REBALANCE DAY) a day



on which the relevant EXCHANGE is open for trading (or a day that would have been such a day if a market disruption had not occurred), excluding days on which trading may be ceased prior to the scheduled EXCHANGE closing time and days on which the EXCHANGE is open for a scheduled shortened period. The INDEX ADMINISTRATOR is ultimately responsible as to whether a certain day is a TRADING DAY.

The "TRADING PRICE" in respect of an INDEX COMPONENT and a TRADING DAY is the most recent published price at which the INDEX COMPONENT was traded on the respective EXCHANGE.



## 7. HISTORY OF INDEX CHANGES

Version	Date	Description										
1.0		Index Guideline creation ( <i>initial version</i> )										
1.1	April 10 <sup>th</sup> 2023	Updated constraints for security and sector for high CI names and sectors. Customized the relaxation steps.										
1.2	April 19 <sup>th</sup> 2023	<p>Added the following Indices to the Guideline:</p> <table border="1"> <thead> <tr> <th>Index RIC</th> <th>Index NAME</th> </tr> </thead> <tbody> <tr> <td>.SOESDEUN</td> <td>Solactive L&amp;G ESG Developed Markets ex UK EUR Index NTR</td> </tr> <tr> <td>.SOESGDEP</td> <td>Solactive L&amp;G ESG Developed Markets PR Index EUR</td> </tr> <tr> <td>.SOESGDEN</td> <td>Solactive L&amp;G ESG Developed Markets NTR Index EUR</td> </tr> <tr> <td>.SOESGDET</td> <td>Solactive L&amp;G ESG Developed Markets GTR Index EUR</td> </tr> </tbody> </table>	Index RIC	Index NAME	.SOESDEUN	Solactive L&G ESG Developed Markets ex UK EUR Index NTR	.SOESGDEP	Solactive L&G ESG Developed Markets PR Index EUR	.SOESGDEN	Solactive L&G ESG Developed Markets NTR Index EUR	.SOESGDET	Solactive L&G ESG Developed Markets GTR Index EUR
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1.3	August 3 <sup>rd</sup> 2023	<p>Added the following Indices to the Guideline:</p> <table border="1"> <thead> <tr> <th>Index RIC</th> <th>Index NAME</th> </tr> </thead> <tbody> <tr> <td>.SOESDEUP</td> <td>Solactive L&amp;G ESG Developed Markets ex UK EUR Index PR</td> </tr> <tr> <td>.SOESDEUT</td> <td>Solactive L&amp;G ESG Developed Markets ex UK EUR Index TR</td> </tr> </tbody> </table>	Index RIC	Index NAME	.SOESDEUP	Solactive L&G ESG Developed Markets ex UK EUR Index PR	.SOESDEUT	Solactive L&G ESG Developed Markets ex UK EUR Index TR				
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