

INDEX GUIDELINE

*Solactive L&G Low Carbon Transition Investment
Grade Corporate Bond Index Family*

Version 1.0

26 June 2025



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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 Low Carbon Transition Investment Grade Corporate Bond Index Family (the "INDEX"). Any amendments to the rules made to the GUIDELINE are approved by the INDEX COMMITTEE as specified in the Bond Index Methodology. 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 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 of financial instruments or investment funds referencing the INDEX under a valid license – 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

The INDEX aim to track the performance of USD and GBP denominated corporate bonds, adjusting for Environment, Social and Government (ESG) factors, and to satisfy a decarbonization requirement as outlined below

- Solactive L&G Low Carbon Transition USD Investment Grade Corporate Bond TR Index represents a climate-tilted strategy which self-decarbonizes by reducing exposure to carbon emissions over time aligning to carbon transition for USD denominated corporate bonds.
- Solactive L&G Low Carbon Transition GBP Investment Grade Corporate Bond TR Index represents a climate-tilted strategy which self-decarbonizes by reducing exposure to carbon emissions over time aligning to carbon transition for GBP denominated corporate bonds.

1.2. IDENTIFIERS AND PUBLICATION

The INDEX is published under the following identifiers:



Name	ISIN	Currency	Type	Calculation Formula*	RIC	BBG ticker
Solactive L&G Low Carbon Transition GBP Investment Grade Corporate Bond TR Index	DE000SL0MZZ3	GBP	TR	Direct	.SOLCTIGB	
Solactive L&G Low Carbon Transition USD Investment Grade Corporate Bond TR Index	DE000SL0MZ09	USD	TR	Direct	.SOLCTIUS	
Solactive L&G Low Carbon Transition USD Investment Grade Corporate Bond in GBP TR Index	DE000SL0PQN1	GBP	TR	Direct	.SOLCTGUS	
Solactive L&G Low Carbon Transition USD Investment Grade Corporate Bond TR Index - GBP Hedged	DE000SL0MZ17	GBP	CH		.SOLCTGCH	

*The calculation formula refers to the index calculation's dependency on cash reinvestment, based on whether the cash reinvestment occurs on a daily/direct basis or periodically.

*TR means that the INDEX is calculated as Total Return index as described in the Bond Index Methodology, which is available on the SOLACTIVE website: <https://www.solactive.com/documents/bond-index-methodology/>

*CH means that the INDEX is calculated as Currency Hedge index as described in the Bond Index Methodology, which is available on the SOLACTIVE website: <https://www.solactive.com/documents/bond-index-methodology/>

The INDEX is published on the website of the INDEX ADMINISTRATOR (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 Solactive L&G Low Carbon Transition USD Investment Grade Corporate Bond TR Index on the 24th of June 2025 is 1000. Levels of the INDEX published for a period prior to this date have been back-tested. Historical values from the 30th of Oct 2020 will be recorded in accordance with Article 8 of the BMR.



The initial level of the Solactive L&G Low Carbon Transition GBP Investment Grade Corporate Bond TR Index on the 23rd of June 2025 is 1000. Levels of the INDEX published for a period prior to this date have been back-tested. Historical values from the 30th of Oct 2020 will be recorded in accordance with Article 8 of the BMR.

1.4. PRICES AND CALCULATION FREQUENCY

The INDEX is calculated and distributed once every BUSINESS DAY based on the EVALUATED BID PRICE of the INDEX COMPONENT. Bonds added in a rebalancing (see Section 3) are included in the INDEX at the EVALUATED ASK PRICE on the relevant REBALANCE DAY. Bonds which are excluded from the INDEX in a rebalance are reflected in the calculation of the level of the INDEX for the REBALANCE DAY at the EVALUATED BID PRICE on the relevant REBALANCE DAY. INDEX analytical values are calculated each BUSINESS DAY using the EVALUATED BID PRICE based on FIXING TIME. Prices of INDEX COMPONENT not listed in the INDEX CURRENCY are converted using the 4:00 PM London time WM Fixing quoted by Reuters.

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 underlying index and 4:00 PM WM Spot and Forward Fixings quoted by Reuters. If there is no 4:00 PM WM Fixing for the relevant CALCULATION DAY, the last available 4:00 PM London time WM Fixing will be used for the closing level calculation.

2. INDEX SELECTION

On each SELECTION DAY, all bonds which meet the INDEX COMPONENT REQUIREMENTS are eligible for inclusion in the INDEX and will be added as INDEX COMPONENT on the REBALANCE DAY. Additionally, on each SELECTION DAY, it will be evaluated whether all current INDEX COMPONENTS still meet the INDEX COMPONENT REQUIREMENTS. Each INDEX COMPONENT that does not meet the INDEX COMPONENT REQUIREMENTS will be removed from the INDEX on the next REBALANCE DAY.

2.1. SELECTION OF THE INDEX COMPONENTS

The initial composition of each INDEX, (as specified in Section 3) is determined using the following rules:

- The starting universe for each INDEX is one of the following BENCHMARK INDEX:
 - a. Solactive USD IG Liquid Corporate Bond Index (Solactive L&G Low Carbon Transition USD Investment Grade Corporate Bond TR Index)
 - b. Solactive GBP IG Liquid Corporate Bond Index (Solactive L&G Low Carbon Transition GBP Investment Grade Corporate Bond TR Index).



- Bond issuers must not be on the L&G Future World Protection List. The L&G Future World Protection List includes:
 - a. companies that are involved in, and/or derive revenues from controversial weapons;
 - b. pure coal mining companies, and
 - c. certain companies that do not comply with the United Nations Global Compact screening criteria.
- Bonds with a value of -1 for the ESG Score are excluded.
- A price from the PRICING PROVIDER must be available for each INDEX COMPONENT on each SELECTION DAY.

The determination of the INDEX COMPONENTS is fully rule-based and the INDEX ADMINISTRATOR has no discretion.

2.1.1 SELECTION OF THE INDEX CURRENCY COMPONENTS

Based on the INDEX CURRENCY 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 CURRENCY COMPONENT REQUIREMENTS"):

- All of the currencies from the INDEX CURRENCY UNIVERSE.

2.2. WEIGHTING OF THE INDEX COMPONENTS

On each SELECTION DAY each INDEX COMPONENT is weighted using the market value based on the EVALUATED BID PRICE and accrued interest as on the SELECTION DAY in order to achieve the aim of the INDEX. The weighting of the INDEX COMPONENTS will be as follows:

The purpose of the weighting schema is to tilt the market value weight of bonds according to their issuer's Emissions & Transition Score and the decarbonization goals, whilst ensuring that the resulting index remains representative of the benchmark index in terms of key risk factors.

The process follows three main steps:

1. Tilting and Capping

The market value weight of each Index Component is tilted using the following formula, which takes the Carbon score assigned to each issuer into account:

$$W_i^{tilt} = (1 + \text{Emissions \& Transition Score})^T \times W_i^{MC} \times \text{Green Bond Indicator}_i$$



where

W_i^{tilt}	is the weight of bond i after the Carbon tilting has been applied
W_i^{MC}	is the market-value weight of bond i relative to all the eligible bonds of the same currency.
<i>Emissions & Transition Score</i>	is the latest available L&G Emissions & Transition <i>Score</i> score which takes a value between -1 or +1. Unrated issuers are given a score of 0.
T	is the tilting strength or power. It is estimated by utilizing an optimization with a carbon constraint.
<i>Green Bond Indicator_i</i>	is a binary flag which is 2 if the bond is classified as green bond by CBI and is included in the Solactive Green Bond Index, otherwise it is 1

The objective function is to minimize the tilt strength (T) of the adjusted weights (W_i^{tilt}) subject to carbon constraint. The carbon constraint is defined as the weighted sum of carbon intensities and adjusted weights. The minimum value assigned to tilt strength (T) is zero.

2. Carbon Intensity

We have implemented a mapping logic for calculating carbon intensities for the securities. The following rules define the formulas for different scenarios. If there are no values after applying the carbon intensity mapping rules, we fill the missing values with the sector medians. The carbon intensities formulas are given below,

A) If the issuer is parent,

$$CI_i = \frac{GHG_i^I}{EVIC_i^I}$$

B) If the issuer is private and the credit parent is public and, both are in the same sector.

$$CI_i = \frac{GHG_i^P}{EVIC_i^P}$$

C) If issuer is private and the credit parent is public and, the issuer is in Finance.

$$CI_i = \frac{GHG_i^P}{EVIC_i^P}$$

D) The issuer is private, the credit parent is private and both are in the same sector.

$$CI_i = \frac{GHG_i^P}{Book\ Value_i^P}$$

E) The issuer is private, the credit parent is private and, the parent and issuer are in Finance.



$$CI_i = \frac{GHG_i^P}{Book\ Value_i^P}$$

F) The issuer is private, the credit parent is private and, the parent and issuer are not in Finance.

$$CI_i = \frac{GHG_i^I}{Book\ Value_i^I}$$

where,

CI_i	Carbon Intensity of the i^{th} index component.
GHG_i^I	GHG metric is calculated as the sum of Scope 1 and Scope 2 emissions of the issuer.
GHG_i^P	GHG metric is calculated as the sum of Scope 1 and Scope 2 emissions of the parent.
$EVIC_i^I$	Issuer EVIC of the i^{th} index component.
$EVIC_i^P$	Parent EVIC of the i^{th} index component.
$Book\ Value_i^I$	Issuer book value of the i^{th} index component.
$Book\ Value_i^P$	Parent book value of the i^{th} index component.



3. Optimization with Decarbonization

The Adjusted Tilted Weights are then used as the starting weights in the optimization algorithm that ensures compliance with the decarbonization targets using trajectories. The BaseDate for computing the starting value for carbon intensities is taken as of 7th October 2020.

On each following SELECTION DAY, the objective function minimizes the sum of squared weight difference between optimal weights and the tilted weights. To make sure the optimization algorithm is not assigning zero-weights to bonds, a minimum weight of 0.01bps is added.

The optimization observes the following initial constraints:

- The weighted average carbon intensity of the index must be smaller than or equal to the minimum of the following two quantities: 70% of the weighted average carbon intensity of the benchmark index, and the current value of the carbon intensity decarbonization trajectory.
- The deviation in aggregate index weight from the Adjusted Tilted Weights is limited among several dimensions as follows:

Dimension	Maximum Deviation from Benchmark Weights
Rating (AAA, AA+, AA, ..., BBB-)	+/- 1%
Maturity (1-5, 5-10, ... 25+ Years)	+/- 1%
Sector	+/- 3%
Finance Sub-sectors	+/- 3%
Issuer	+/- 1%
Bond	+0.25% and -0.25%

- The maximum issuer weight must be smaller than 3%.

In case the optimization is unfeasible the constraints are relaxed in the following order:

- First relax the bond constraint by 5bps in each iteration (up to -/+40bps)
- Then relax the issuer constraint by 10bps in each iteration (up to -/+1.50%)
- Then relax the sector constraint by 10bps in each iteration (up to -/+5.00%)



- Finally do a joint relaxation of bond and issuer constraint by increasing bond constraint by 0.01% and issuer constraint by 0.025% until a solution is found.

Carbon Intensity Decarbonization Trajectory: The decarbonization trajectory for a carbon intensity measure is defined as a step function starting at the BASE DATE with the value of 50% of the weighted average carbon measure of the BENCHMARK INDEX at the BASE DATE and reducing geometrically by 7% yoy on each rebalancing (every month except December), and is ALSO adjusted by the performance of the relevant CCY INDEX between the BASE DATE and the SELECTION DAY,

$$CIDT_{SD} = CEI_{B,BD} \times (1 - DO\ Reduction) \times (1 - 7\%)^{(SDS-BDS)} \times \frac{IL_{B,BD}}{IL_{B,SD}}$$

where,

$CIDT_{SD}$ = Carbon Intensity Decarbonization Trajectory on SELECTION DAY

$CEI_{B,BD}$ = Carbon Emission Intensity of the BENCHMARK INDEX on the BASE DATE

DO Reduction = Decarbonization Reduction level in Carbon Emission Intensity vs the BENCHMARK INDEX (50%)

$SDS - BDS$ = time delta in years between SELECTION DAY and BASE DATE

$IL_{I,BD}$ = The INDEX level of the INDEX on the BASE DATE

$IL_{I,SD}$ = The INDEX level of the INDEX on the SELECTION DAY

2.2.1 WEIGHTING OF THE INDEX CURRENCY COMPONENTS

On each SELECTION DAY, the weight of each INDEX CURRENCY COMPONENT is assigned according to the aggregated weights of all the UNDERLYING INDEX COMPONENTS quoted in the respective Currency.

3. ORDINARY REBALANCE

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

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



SOLACTIVE will publish any changes made to the INDEX COMPONENTS with sufficient notice before the REBALANCE DAY on the SOLACTIVE webpage.

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. Adjustments to the INDEX to account for corporate actions will be made in compliance with the Bond Index Methodology.



5. DEFINITIONS

"BENCHMARK INDEX" for USD and GBP currencies are Solactive USD IG Liquid Corporate Bond Index and Solactive GBP IG Liquid Corporate Bond Index.

"BASE DATE" is October 7th, 2020.

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

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

"BUSINESS DAY" is with respect to the INDEX each day Monday to Friday except the following sets of days:

- London Stock Exchange holidays for the Solactive L&G Low Carbon Transition GBP Investment Grade Corporate Bond TR Index
- New York Stock Exchange holidays and SIFMA for the Solactive L&G Low Carbon Transition USD Investment Grade Corporate Bond TR Index

"CARBON INTENSITY" 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 BENCHMARK 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 BENCHMARK INDEX at the end of the latest calendar year, divided by the average EVIC of the BENCHMARK INDEX at the end of the previous calendar year.

"Carbon Score" is the latest available L&G Emissions & Transition Score.

"CLOSE OF BUSINESS" is a time stamp when an INDEX is calculated.

"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.

"CURRENCY HEDGE INDEX" represent the return resulting from the sum of an underlying index performance and the performance of the hedge of this index using currency forward contracts.

"Effective Maturity Date" is the minimum of the next call or put date and the final maturity date.

"ESG Score" is the latest available L&G Issuer ESG score.

L&G Future World Protection List is the list of companies compiled by L&G based on their methodology

[LGIM's Future World Protection List Methodology](#).



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

"GHG" are the Greenhouse Gas Emissions of a company as of the SELECTION DAY. According to the GHG Protocol, 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,

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

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

"INDEX CALCULATOR" is SOLACTIVE or any other appropriately appointed successor in this function.

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

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

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

"INDEX CURRENCY COMPONENTS" is each currency on which UNDERLYING INDEX COMPONENT trades in the market.

"INDEX CURRENCY COMPONENT WEIGHT" is value resultant from the sum of all the UNDERLYING INDEX COMPONENT'S weights quoted in the respective Currency.

"INDEX CURRENCY UNIVERSE" is the sum of all currencies which fulfill the INDEX CURRENCY UNIVERSE REQUIREMENTS.

"INDEX CURRENCY UNIVERSE REQUIREMENTS" shall have the meaning as defined in Section 2.1.1

"ISSUER" is the issuing entity of the respective bond.

"OVERSIGHT COMMITTEE" shall have the meaning as defined in the Bond Index Methodology.

"PRICING PROVIDER" is Intercontinental Exchange.

"REBALANCE DAY" is the last BUSINESS DAY of each month from January to November. The INDEX is not rebalanced in December.

"SELECTION DAY" is 3 BUSINESS DAYS before the scheduled REBALANCE DAY, disregarding any potential change of the REBALANCE DAY

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

"SPOT" is the spot foreign exchange rate to convert the currency of the INDEX COMPONENT into the denomination of the INDEX CURRENCY.

"UNDERLYING INDEX COMPONENTS" is each security reflected in the composition of the UNDERLYING INDEX.



Please note that the definitions included in the Bond Index Methodology apply to this guideline. In case of a discrepancy, the definition presented in the guidelines should prevail.



6. HISTORY OF INDEX CHANGES

Version	Date	Description
1.0	<i>26 June 2025</i>	Index Guideline creation (<i>initial version</i>)

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