

INDEX GUIDELINE

SOLACTIVE ENERGY TRANSITION COMMODITY INDEX

Version 1.1

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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 Energy Transition Commodity TR Index (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, administered, calculated 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 5 (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	Commodity
Strategy	The INDEX provides exposure to a diversified basket of commodities which are both relevant to the energy transition (including but not limited to transition metals, transition energy, and emissions) and accessible enough to facilitate a strategy with a high level of overall liquidity for investors
Rebalancing Frequency	Quarterly

1.2. IDENTIFIERS AND PUBLICATION

The INDEX is published under the following identifiers:

Name	ISIN	Currency	Type	RIC	BBG ticker
Solactive Energy Transition Commodity TR Index	DE000SLOJWZ6	USD	TR*	.SOLENTCT	SOLENTCT Index
Solactive Energy Transition Commodity ER Index	DE000SLOLG11	USD	ER**	.SOLENTCE	SOLENTCE Index

*TR means that the Index is calculated as total return.

**ER means that the Index is calculated as excess return.

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 INDEX on the 02/01/2019, the START DATE, is 100.

Historical values from the 29/09/2023, 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 backtested using the initial allocation as determined in section 3.3. For the period, during the backtest, where MLCI2CVE and MLCIQLFE levels were not available, their weights were reallocated to the relevant sector on a pro-rata basis in accordance with section 3.3.

1.4. PRICES AND CALCULATION FREQUENCY

The level of the INDEX is calculated once for each CALCULATION DAY based on the UNDERLYING PRICES on the EXCHANGES on which the INDEX COMPONENTS are listed.

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 Market Capacity Number will be updated as per the methodology in section 3.3. Any updates to the numbers will be reflected in the index composition Close of Business on the QUARTERLY REBALANCING DAY.

2.1. INDEX UNIVERSE REQUIREMENTS

The INDEX UNIVERSE is comprised of INDEX COMPONENT which are listed below.

Further INDEX COMPONENT and associated WEIGHT MULTIPLIER may be added by the means of an Index Committee decision if they serve the index objective.

Number	Underlying	Sector	Diversified Sector	Index Component Ticker	Weight Multiplier
1	Aluminium	Energy Transition +	Aluminium	MLCI3LAE	2
2	Copper	Energy Transition +	Copper	MLCI3HGE	2
3	Lead	Energy Transition	Lead	MLCI3LLE	1
4	Nickel	Energy Transition +	Nickel	MLCI3LNE	2
5	Tin	Energy Transition	Tin	MLCI3LTE	1
6	Zinc	Energy Transition	Zinc	MLCI3LXE	1
7	Gold	Energy Transition	Precious	MLCI3GCE	1
8	Silver	Energy Transition	Precious	MLCI3SIE	1
9	Platinum	Energy Transition	Platinum	MLCI2PLE	1
10	Iron ore	Energy Transition	Iron ore	MLCX2SCE	1
11	Cobalt	Energy Transition +	Cobalt	MLCI2CVE	2
12	Lithium	Energy Transition +	Lithium	MLCIQLFE	2
13	Natural Gas NG	Energy	Natural Gas	MLCXNGAE	1
14	Natural Gas TTF	Energy	Natural Gas	MLCIQZTE	1



15	Ethanol	Energy	Ethanol	MLCX2CUA	1
16	Uranium	Energy	Uranium	MLCX2UXE*	1
17	Bank Of America MLBV USD 5Y Certificate	Diversified Carbon	Diversified Carbon	XS2658523431	Not Applicable

*MLCX2UXE is still not live yet as of this version of the guidelines.



3. CALCULATION OF THE INDEX

3.1. INDEX FORMULA

The INDEX is calculated as a total return Index.

The Total Return Index level $I_{TR,t}$ on each CALCULATION DAY t is calculated in accordance with the following formula:

If t is the START DATE:

$$I_{TR,t} = 100$$

Else:

$$I_{TR,t} = I_{TR,t-1} * \left(\frac{I_{ER,t}}{I_{ER,t-1}} + Rate_{t-1} \times DCF_{t,t-1} \right)$$

Where:

$I_{ER,t}$ The Excess Return Index level as of CALCULATION DAY t.

$I_{ER,t-1}$ The Excess Return Index level as of the CALCULATION DAY immediately preceding CALCULATION DAY t.

$Rate_{t-1}$ The level of INTEREST RATE as of the CALCULATION DAY immediately preceding CALCULATION DAY t. Provided that no level of INTEREST RATE is published in respect of such day, the level of INTEREST RATE in respect of the immediately preceding calendar day in which a level of INTEREST RATE has been published shall be used.

$DCF_{t,R}$ The number of calendar days between the CALCULATION DAY immediately preceding Calculation Day t and CALCULATION DAY t, divided by 360.

The Excess Return Index level $I_{ER,t}$ on each CALCULATION DAY t is calculated in accordance with the following formula:

If t is the START DATE:

$$I_{ER,t} = 100$$

Else:



$$I_{ER,t} = I_{ER,t-1} + \sum_{i=1}^n U_{i,t-1} \times (C_{i,t} - C_{i,t-1}) - U_{i,t-1} \times (C_{i,t-1} \times AFR \times DCF_{t-1,t})$$

Where:

$I_{ER,t-1}$	The Excess Return Index level on the CALCULATION DAY immediately preceding CALCULATION DAY t.
$U_{i,t-1}$	The NUMBER OF UNITS for INDEX COMPONENT i as of the CALCULATION DAY immediately preceding CALCULATION DAY t, calculated in accordance with the formula in section 3.2.
$C_{i,t}$	The UNDERLYING PRICE of INDEX COMPONENT i as of CALCULATION DAY t.
$C_{i,t-1}$	The UNDERLYING PRICE of INDEX COMPONENT i as of the CALCULATION DAY immediately preceding CALCULATION DAY t.
AFR	The Adjustment Factor rate of 0.0025.
$DCF_{t-1,t}$	The number of calendar days between the CALCULATION DAY immediately preceding CALCULATION DAY t. and CALCULATION DAY t, divided by 360.
n	The number of INDEX COMPONENTS as of the REBALANCE DAY immediately preceding CALCULATION DAY t.

3.2. NUMBER OF UNITS CALCULATION

The Number of Units of INDEX COMPONENT i as of CALCULATION DAY t, $U_{i,t}$, is calculated according to:

If t is a REBALANCING DAY :

$$U_{i,t} = \frac{PTW_{i,t} \times I_{ER,t-1}}{C_{i,t-1}}$$

Where:

$PTW_{i,t}$	The percentage target weight for INDEX COMPONENT i as of the REBALANCING DAY t.
$I_{ER,t-1}$	As defined in section 3.1.
$C_{i,t-1}$	As defined in section 3.1.

Otherwise:

$$U_{i,t} = U_{i,t-1}$$



3.3. WEIGHT CALCUALTION

Index Component	Maximum Capacity, MC_i	Diversified Sector Weight, DSW_i
Aluminium	Unlimited	15%
Copper	Unlimited	15%
Nickel	150,000,000	15%
Cobalt	700,000	15%
Lithium	50,000	15%
Iron Ore	100,000,000	15%
Platinum	100,000,000	15%
Silver	Unlimited	15%
Tin	125,000,000	15%
Zinc	180,000,000	15%
Gold	Unlimited	15%
Lead	125,000,000	15%
Natural Gas NG	Unlimited	15%
Natural Gas TTF	50,000,000	15%
Ethanol	75,000,000	15%
Uranium	0	15%

The Carbon sector, as listed in Section 2.1, the INDEX COMPONENT will have a fixed weight of 9% and will not be part of the weight calculation detailed below.

Any diversified sector, as listed in 2.1 will have a cap of 15%.

INDEX COMPONENTS with particular importance for energy transitions are overweighted based on its weight multipliers as listed in 2.1:

For each INDEX COMPONENT, excluding INDEX COMPONENTS from the Energy Transition, Energy Transition+ and Diversified Carbon sectors, the percentage target equal weight, $PTEW_i$, is calculated according to:



$$PTEW_i = \frac{1}{\sum_{i=1}^n \mathbb{I}_{\{MC_i > 0\}}}$$

Where:

n The number of INDEX COMPONENTS.

MC_i The maximum capacity of INDEX COMPONENT i as defined in the table above.

$\mathbb{I}_{\{\cdot\}}$ The indicator function which equal 1 if the term in parenthesis is true and 0 otherwise.

The percentage target equal weight is therefore equal to one divided by the number of INDEX COMPONENTS which have a maximum capacity strictly larger than 0.

For INDEX COMPONENTS from the Energy Transition or Energy Transition+ sectors, the percentage target equal weight is calculated according to the following formula:

$$PTEW_i = \frac{1 - \sum_{i=1}^n \mathbb{I}_{i \notin \{Energy\ Transition, Energy\ Transition+\}} \times PTEW_i}{\sum_{j=1}^n \mathbb{I}_{\{MC_j > 0\}}} * \frac{WM_i}{\overline{WM}}$$

Where:

n The number of INDEX COMPONENTS.

$\mathbb{I}_{\{\cdot\}}$ The indicator function which equal 1 if the term in parenthesis is true and 0 otherwise.

WM_i The weight multiplier of INDEX COMPONENT i according to Section 2.1

\overline{WM} The average weight multiplier of INDEX COMPONENTS belonging to either the Energy Transition or Energy Transition+ sectors.

$$\overline{WM} = \frac{\sum_{i=1}^n \mathbb{I}_{\{Sector_i \in \{Energy\ Transition, Energy\ Transition+\}\}} * WM_i}{\sum_{i=1}^n \mathbb{I}_{\{Sector_i \in \{Energy\ Transition, Energy\ Transition+\}\}}}$$

Based on the above formula, the percentage target equal weights $PTEW$ as of 29/09/2023 are the following:

Index Component	$PTEW$
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Aluminium	8.56%
Copper	8.56%
Nickel	8.56%
Cobalt	8.56%
Lithium	8.56%
Iron Ore	4.28%
Platinum	4.28%
Silver	4.28%
Tin	4.28%
Zinc	4.28%
Gold	4.28%
Lead	4.28%
Natural Gas NG	6.07%
Natural Gas TTF	6.07%
Ethanol	6.07%
Bank Of America MLBV USD 5Y Certificate	9.00%
Uranium	0.00%

The market capacity of each INDEX COMPONENT is updated on each Selection Day SD based on the following formula:

$$\begin{aligned}
 & \text{MarketCapacity}_{i,SD} \\
 &= \frac{\sum_{j=0}^{20} \text{DailyVolume}(\text{Contract}_{C_{i,SD}}, SD - j)}{21} \\
 & \times \text{ContractValue}(\text{Contract}_{C_{i,SD}}, SD) \times 0.1 \times 15
 \end{aligned}$$

Where:

$\text{Contract}_{C_{i,SD}}$ The futures contract which INDEX COMPONENT C_i is invested in as of the Selection Day SD with the earliest expiration.



$DailyVolume(Contract, t)$ The trading volume of the respective futures contract $Contract$ on date t .

$ContractValue(Contract, t)$ The contract value/settlement price of the respective futures contract $Contract$ on date t .

$SD - j$ the j^{th} CALCULATION DAY immediately preceding CALCULATION DAY SD .

Capacity for INDEX COMPONENT i as of Selection Day SD is derived from the market capacity and the maximum capacity as follows:

$$Capacity_{C_i,SD} = \max(MarketCapacity_{i,SD}, MC_i)$$

With $MarketCapacity_{i,SD}$ as defined above.

The capacity weight of INDEX COMPONENT i as of CALCULATION DAY t , $MCPTW_{C_i,SD}$, is calculated according to:

$$MCPTW_{C_i,t} = \frac{Capacity_{C_i,SD}}{\max\left(50000000, \text{floor}\left(\frac{AuM_t}{50000000}\right) \times 50000000\right)}$$

Where AuM_t is the maximum of the total assets under management (AuM) in US Dollars tracking the Index on CALCULATION DAY t and SD the closest Selection Day to t . AuM_t must always remain at least above 50m US Dollars.

The capacity constrained percentage target weight, $CCPTW_{C_i,t}$, is calculated according to:

$$CCPTW_{C_i,t} = \min(MCPTW_{C_i,t}, PTEW_i)$$

The excess constrained percentage target weight, $EXCPTW_{C_i,t}$, is defined as:

$$EXCPTW_{C_i,t} = \max(0, PTEW_i - CCPTW_{C_i,t})$$

Within each Diversified Sector, the excess constrained percentage target weight is reallocated to each Diversified Sectors, as applicable. If, for a Diversified Sector k , the Diversified Sector Weight is higher than



the *DSW* cap (as defined above), the weight will be reallocated to the relevant Sector. If, the Excess Constrained Percentage Target Weight cannot be reallocated to a Sector because of *DSW* capping, the weight will be reallocated to the Energy Transition + (or Energy Transition if the Energy Transition+ Sector is already at its cap) Sector on a pro-rata basis according to the caps.

The percentage target weight for each INDEX COMPONENT *i* on any given Rebalancing Day *R* is then defined as capacity constrained percentage target weight after the capping mechanism.

The allocation as of 29/09/2023, following the rules above, would be as follows:

INDEX COMPONENT	<i>PTW</i>
Aluminium	13.77%
Copper	13.77%
Nickel	13.77%
Cobalt	1.40%
Lithium	0.10%
Iron Ore	4.28%
Platinum	4.28%
Silver	4.28%
Tin	4.28%
Zinc	4.28%
Gold	4.28%
Lead	4.28%
Natural Gas NG	6.07%
Natural Gas TTF	6.07%
Ethanol	6.07%
Bank Of America MLBV USD 5Y Certificate	9.00%
Uranium	0.00%



3.4. ACCURACY

The level of the INDEX will be rounded to eight decimal places for calculation purposes and to four decimal places for publication purposes.

3.5. 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/>.

3.6. MARKET DISRUPTION

In periods of market stress the INDEX ADMINISTRATOR shall calculate the INDEX 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.



4. MISCELLANEOUS

4.1. 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.

4.2. 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.

If a new commodity is added, the commodity should be part of the following exchanges: CME, LME, ICE or SGX.

4.3. 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.



4.4. 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/>.

4.5. 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/>.



5. DEFINITIONS

"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 where the New York Mercantile Exchange (MIC: XNMY) is open for trading.

The "EXCHANGE" is the New York Mercantile Exchange.

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

An "INDEX COMPONENT" is any of the entities defined in Section 6.1.

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

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

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

"INTEREST RATE" is the Secured Overnight Financing Rate (RIC: USDSOFR=) published on the Federal Reserve Bank of New York website at approximately 8:00 a.m. (Eastern Time).

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

"MARKET DISRUPTION EVENT" shall have the meaning as defined in Section 3.10.

"OVERSIGHT COMMITTEE" shall have the meaning as defined in Section 4.2.

"REBALANCE DAY" is the day on which the London Metal Exchange (MIC: XLME), the New York Mercantile Exchange (MIC: XNMY), the ICE futures US Exchange and the Singapore Exchange (MIC: XSES) are open for trading.

"QUARTERLY REBALANCE DAY" is the REBALANCE DAY falling 21 CALCULATION DAYS after the SELECTION DAY.

"SELECTION DAY" is the last CALCULATION DAY in January, April, July and October.

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

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

"UNDERLYING PRICE" is the price of each INDEX COMPONENT as published by the relevant index calculation agent.

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