

## **INDEX METHODOLOGY**

### **Solactive Battery Value-Chain Index**

Version 1.2 dated September 03, 2020

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## **Important Information**

This document (“**Index Methodology Document**”) contains the underlying principles and regulations regarding the structure and the operating of the Solactive Battery Value-Chain Index. Solactive AG shall make every effort to implement regulations. Solactive AG does not offer any explicit or tacit guarantee or assurance, neither pertaining to the results from the use of the Index nor the Index value at any certain point in time nor in any other respect. The Index is merely calculated and published by Solactive AG and it strives to the best of its ability to ensure the correctness of the calculation. There is no obligation for Solactive AG – 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 AG is no recommendation for capital investment and does not contain any assurance or opinion of Solactive AG regarding a possible investment in a financial instrument based on this Index.

**This Index Methodology Document is to be used as the guidelines with regard to the composition, calculation and management of the Index. Any changes made to the Index Methodology Document are initiated by the Index Committee as defined in *Section 1.6 Index Committee*.**

**The Index is calculated and published by Solactive AG. The name “Solactive” is trademarked.**

# 1. Index Specifications

The Solactive Battery Value-Chain Index (the “**Index**”) is an equity index owned by Solactive AG (the “**Index Owner**”), is calculated and distributed by Solactive AG (the “**Calculation Agent**”) and is administered by Solactive AG assuming the role as administrator (the “**Index Administrator**”) under the Regulation (EU) 2016/1011 (the “**Benchmark Regulation**” or “**BMR**”).

The Index aims to track the performance of a basket of stocks of companies that are providers of certain electro-chemical energy storage technology (i.e., battery technology) and mining companies that produce metals that are primarily used for manufacturing batteries. A battery is a device consisting of one or more electro-chemical cells that are capable of generating electrical energy from chemical reactions. The index selects stocks of such companies, across various equity markets, which meet certain size and liquidity requirements.

The Index is a net total return index, i.e. dividends are reinvested net of tax. The applicable withholding tax rates used to calculate the Net Total Return version can be accessed (under the title “Withholding Tax Rates”) on the Calculation Agent’s website at: <http://www.solactive.com/news/documents/>.

The price of the Index (the “**Index Value**”) is calculated and published in US Dollars.

## 1.1 Short Name and ISIN

The Index is distributed under ISIN DE000SLA33F4; the WKN is SLA33F. The Index is published on Reuters under the RIC <.SOLBATT> and on Bloomberg under the ticker SOLBATT Index.

## 1.2 Initial Value

The Index Value at the close of trading on the start date 18 May 2012 was set to be equal to a value of 100. The Index was officially launched on the Index Inception Date.

## 1.3 Distribution

The Index is published on the website of the Index Administrator ([www.solactive.com](http://www.solactive.com)) and is, in addition, available via the price marketing services of Boerse Stuttgart GmbH and may be distributed to all affiliated vendors. Each vendor decides on an individual basis as to whether they will distribute/display the Index via their information systems.

## 1.4 Prices and Calculation Frequency

The Index Value is calculated on each Business Day based on the prices of the relevant Index Components on the respective Exchanges on which they are listed. For the purposes of calculating the Index Value on a Business Day, the most recent prices of all relevant Index Components are used. Further, prices of Index Components not listed in the Index Currency are converted into the Index Currency using the current Intercontinental Exchange (the „ICE“) spot foreign exchange rate. Should there be no current price available for an Index Component, the most recent price or the Trading Price for the preceding Trading Day is used in the calculation..

The Index Value is calculated on each Business Day from 9:00am to 10:30pm, CET. In the event that data cannot be provided to Reuters or to the pricing services of Boerse Stuttgart GmbH the Index cannot be distributed.

## 1.5 Weighting

On each Adjustment Day the Index Components are weighted in accordance with the methodology described in *Section 2.2 Ordinary Adjustment*.

## 1.6 Index Committee

A committee composed of staff from the Index Owner and shall be responsible for decisions regarding the composition of the Index as well as any amendments to the rules (in this document referred to as the “**Index Committee**”). The future composition of the Index shall be determined by the Index Committee on the Selection Days according to the methodology set out in *Section 2.1 Selection of Index Components* of this document. Upon the occurrence of any Extraordinary Event, the Index Committee, in its sole and absolute discretion, shall make decisions that may affect the composition of the Index and implement any necessary adjustments.

Members of the Index Committee may recommend changes to this Index Methodology Document and submit them to the Index Committee for approval.

## 1.7 Publication

All specifications and information relevant for calculating the Index Value are made available on the webpage:

<http://www.solactive.de> and the relevant sub- page:

<https://www.solactive.com/?s=Solactive%20Battery%20Value-Chain%20Index&index=DE000SLA33F4>.

## 1.8 Historical Data

Historical data will be maintained from the launch of the Index on the Index Inception Date.

## 1.9 Licensing

Licences to use the Index as a benchmark for derivative instruments are issued to stock exchanges, banks, financial services providers and investment houses by the Index Owner.

## 1.10 Index Universe

On each Selection Day that occurs in the month of May, the Index Universe shall be determined by the Calculation Agent as described below. On each Selection Day that occurs in the month of November, the Index Universe shall remain unchanged from the Index Universe determined on the immediately preceding Selection Day.

The list of companies whose Securities make up the Index Universe is determined using two data sources:

- (a) Data Provider I for determining companies that are electro-chemical storage technology providers;  
and
- (b) Data Provider II for determining mining companies that produce Lithium.

On each Selection Day that occurs in the month of May, the Calculation Agent shall determine the Index Universe which shall comprise of Securities of:

- (a) each publically listed Energy Storage Technology Provider that is not a Utility Provider; and
- (b) each publically listed Mining Company that is classified as a Producer.

### 1.10.1 Selection of Energy Storage Technology Providers

On each Selection Day that occurs in the month of May, the Calculation Agent shall determine the list of Energy Storage Technology Providers that shall be considered for inclusion in the Index Universe in accordance with the methodology described below:

1. The Calculation Agent shall download all available projects from the Clean Horizon’s Energy Storage Source (CHESS) database driven website through the web url: <https://www.cleanhorizon.com/login>.
2. The Calculation Agent shall then extract and aggregate the Energy Storage Technology Provider companies following the order:
  - a. Select the projects that are classified as “Electrochemical” under the column “Technology Category”;

- b. Select the projects with the value more or equal to 1 under the column “Energy Capacity (MWh)”;
  - c. Select all the companies that are present under the column “Energy Storage Technology Manufacturer”;
  - d. Check if the company’s operations in the energy storage business were not discontinued.
3. Finally, the Calculation Agent shall include in the Index Universe the Securities of those Energy Storage Technology Providers that has its primary listing on any of the Eligible Exchanges. If the Energy Storage Technology Provider is a subsidiary, then such a Security of the parent company is included.

#### **1.10.2 Selection of Mining Companies**

On each Selection Day that occurs in the month of May, the Calculation Agent shall receive the list of mining Producers from the Data Provider II that are producing Lithium.

The Calculation Agent shall include in the Index Universe the Securities of those Mining companies that are classified as “BG” (battery grade) under the column “Grade” and that has its primary listing on any of the Eligible Exchanges.

## 2. Composition of the Index

### 2.1 Selection of the Index Components

This section sets out the methodology used to determine the initial composition of the Index and to make periodic adjustments to the composition of the Index.

In respect of each Selection Day, the Calculation Agent shall determine the Index Components in accordance with the methodology described below:

1. If such Selection Day occurs in the month of May, the Calculation Agent shall determine the securities that constitute the Index Universe in accordance with the methodology described in *Section 1.10 Index Universe*. And, if such Selection Day occurs in the month of November, the Index Universe shall be the same as the Index Universe determined on the immediately preceding Selection Day.
2. The Calculation Agent shall select the securities that are eligible for inclusion in the Index (the “**Eligible Securities**”) from the Index Universe in the following manner:

A Security shall be deemed to be an Eligible Security if:

- a. it has its primary listing on an Eligible Exchange;
- b. it has, as of the Selection Day, a Free Float Market Capitalization of at least USD 200 million, unless such Security is an existing Index Component, in which case, the Free Float Market Capitalization must be at least USD 150 million;
- c. its Three Month Average Daily Value Traded, as of the Selection Day, is at least USD 1,000,000; and
- d. the FactSet Economy Level for such Security is not classified as ‘Energy’.

### 2.2 Ordinary Adjustment

The composition of the Index shall be adjusted on each Adjustment Day that is deemed to be a Rebalancing Day by the Calculation Agent.

Each Adjustment Day that occurs in the month of May and November shall be deemed to be a Rebalancing Day. In addition, if the Calculation Agent determines that the Index Component Weight of any Index Components is greater than 15% on any other Review Day, then the Adjustment Day that occurs immediately after such Review Day shall be deemed to be a Rebalancing Day.

In respect of each Selection Day immediately preceding such Adjustment Day that is a Rebalancing Day, each Index Component is weighted equally such that the total Index Component Weight of all Index Components is equal to 100%, subject to the following constraints:

- i. if the 3m Average Daily Value Traded is less than USD 2,000,000, then the Index Component Weight of such Index Component shall be capped at 1% provided the initial weight is greater than 1%;
- ii. if the 3m Average Daily Value Traded is less than USD 3,000,000 but greater than or equal to USD 2,000,000, then the Index Component Weight of such Index Component shall be capped at 2% provided the initial weight is greater than 2%; and
- iii. if the 3m Average Daily Value Traded is less than USD 4,000,000 but greater than or equal to USD 3,000,000, then the Index Component Weight of such Index Component shall be capped at 3% provided the initial weight is greater than 3%.

Any residual weight that arises from capping the Index Component Weights shall be distributed equally to the remaining Index Components, subject to the constraints i-iii above. For the avoidance of doubt, Index Components affected from the aforementioned constraints will be excluded from the weight redistribution if this process increases their weight above the defined weight caps.

The composition of the Index shall be reconstituted semi-annually on each Selection Day in accordance with the methodology described in *Section 2.1 Selection of Index Components*. The Calculation Agent shall publish any changes made to the Index composition on the Selection Day and consequently with sufficient notice before the Adjustment Day.

## **2.3 Extraordinary Adjustment**

An extraordinary adjustment, if applicable, shall be triggered and applied in compliance with the rules set forth in the Solactive Guideline for Extraordinary Corporate Actions that is available for download at the web url: <https://www.solactive.com/wp-content/uploads/2017/02/ECA-Solactive-Guideline.pdf>.



### 3. Calculation of the Index

#### 3.1 Index Formula

The Index Value on a Business Day at the relevant time is calculated in accordance with the following formula:

$$\text{Index}_t = \sum_{i=1}^n \frac{(x_{i,t} \times p_{i,t} \times f_{i,t})}{D_t}$$

where:

$x_{i,t}$	= Number of Total Shares of the Index Component $i$ on Trading Day $t$
$p_{i,t}$	= Price of Index Component $i$ on Trading Day $t$
$f_{i,t}$	= Foreign exchange rate to convert the Price of Index Component $i$ on Trading Day $t$ into the Index Currency
$D_t$	= Divisor on Trading Day $t$

In respect of the Start Date, the Divisor shall be calculated according to the following formula:

$$D_t = \frac{\sum_{i=1}^n (p_{i,t} \times f_{i,t} \times x_{i,t})}{100}$$

After the close of trading on each Adjustment Day  $t$ , the Divisor in respect of the immediately following Trading Day shall be calculated according to the following formula:

$$D_{t+1} = \frac{\sum_{i=1}^n (p_{i,t} \times f_{i,t} \times x_{i,t+1})}{\text{Index}_t}$$

where:

$x_{i,t+1}$	= Number of Total Shares of the Index Component $i$ in respect of the immediately preceding Selection Day
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In respect of a Trading Day  $t$  that is (i) not an Adjustment Day and (ii) a day on which there are no Corporate Actions, then the Divisor shall be calculated according to the following formula:

$$D_t = D_{t-1}$$

where:

$t - 1$  means the immediately preceding Business Day.

#### 3.2 Accuracy

In respect of each Business Day, the Index Value, rounded to two decimal places, shall be published on Reuters and Bloomberg.

Trading Prices and spot foreign exchange rates used to calculate the Index Value shall be rounded to six decimal places.

Divisors shall be rounded to six decimal places.

#### 3.3 Adjustments

Indices need to be adjusted for systematic changes in prices once these become effective. This requires the new Number of Total Shares of the affected Index Component and the Divisor to be calculated on an ex-ante basis.

Following the Index Committee's decision, the Index is adjusted for distributions, capital increases and stock splits.

This procedure ensures that the first ex quote can be properly reflected in the calculation of the Index. This ex-ante procedure assumes the general acceptance of the Index calculation formula as well as open access to the parameter values used. The calculation parameters are provided by the Calculation Agent.

### 3.4 Dividends and other Distributions

Dividend payments and other distributions are included in the Index. They cause an adjustment of the Divisor. The new Divisor is calculated as follows:

$$D_{t+1} = D_t \times \frac{\sum_{i=1}^n (p_{i,t} \times f_{i,t} \times x_{i,t}) - (x_{i,t} \times y_{i,t} \times g_{i,t})}{\sum_{i=1}^n (p_{i,t} \times f_{i,t} \times x_{i,t})}$$

where:

$p_{i,t}$	= Price of Index Component $i$ on Trading Day $t$
$f_{i,t}$	= Foreign exchange rate to convert the Price of Index Component $i$ on Trading Day $t$ into the Index Currency
$x_{i,t}$	= Number of Total Shares of the Index Component $i$ on Trading Day $t$
$y_{i,t}$	= Distribution of Index Component $i$ with ex date $t + 1$ multiplied by the Dividend Correction Factor
$g_{i,t}$	= Foreign exchange rate to convert the amount of the distribution of Index Component $i$ on Trading Day $t$ into the Index Currency
$D_t$	= Divisor on Trading Day $t$
$D_{t+1}$	= Divisor on Trading Day $t + 1$

### 3.5 Corporate Actions

#### 3.5.1 Principles

Following the announcement by an issuer of Index Components of the terms and conditions of a corporate action (“**Corporate Action**”), the Calculation Agent shall determine whether such corporate action has a dilutive, concentrative or similar impact on the price of the relevant Index Component.

If this should be the case, the Calculation Agent shall make the necessary adjustments that are deemed appropriate in order to take into account the dilutive, concentrative or similar impact on the price of the relevant Index Components and shall determine the date on which such adjustments shall come into effect.

Amongst other things, the Calculation Agent can take into account the adjustment made by an Affiliated Exchange as a result of the corporate action with regard to option and futures contracts on the respective share traded on this Affiliated Exchange.

#### 3.5.2 Capital Increases

In the case of capital increases with ex-date  $t + 1$  the Index is adjusted as follows:

$$x_{i,t+1} = x_{i,t} \times \frac{1 + B}{1}$$

where:

$x_{i,t+1}$	= Number of Total Shares of Index Component $i$ on Trading Day $t + 1$
$x_{i,t}$	= Number of Total Shares of Index Component $i$ on Trading Day $t$
$B$	= Shares received for every share held

$$p_{i,t+1} = \frac{p_{i,t} + s \times B}{1 + B}$$

where:

$p_{i,t+1}$	= Hypothetical Price of Index Component $i$ on Trading Day $t + 1$
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$p_{i,t}$  = Price of Index Component  $i$  on Trading Day  $t$   
 $s$  = Subscription Price in the Index Component currency  
 $B$  = Shares received for every share held

$$D_{t+1} = D_t \times \frac{\sum_{i=1}^n (p_{i,t} \times f_{i,t} \times x_{i,t}) + \sum_{i=1}^n [(x_{i,t+1} \times p_{i,t+1} \times f_{i,t}) - (x_{i,t} \times p_{i,t} \times f_{i,t})]}{\sum_{i=1}^n (p_{i,t} \times f_{i,t} \times x_{i,t})}$$

where:

$D_{i,t+1}$  = Divisor on Trading Day  $t + 1$   
 $D_{i,t}$  = Divisor on Trading Day  $t$   
 $p_{i,t}$  = Price of Index Component  $i$  on Trading Day  $t$   
 $f_{i,t}$  = Foreign exchange rate to convert the Price of Index Component  $i$  on Trading Day  $t$  into the Index Currency  
 $x_{i,t}$  = Number of Total Shares of the Index Component  $i$  on Trading Day  $t$   
 $p_{i,t+1}$  = Hypothetical price of Index Component  $i$  on Trading Day  $t + 1$   
 $x_{i,t+1}$  = Number of Total Shares of the Index Component  $i$  on Trading Day  $t + 1$

### 3.5.3 Share Splits

In the case of share splits with ex-date on Trading Day  $t + 1$ , it is assumed that the prices change in ratio of the terms of the split. The new Number of Total Shares is calculated as follows:

$$x_{i,t+1} = x_{i,t} \times B$$

where:

$x_{i,t+1}$  = Number of Total Shares of the affected Index Component on Trading Day  $t + 1$   
 $x_{i,t}$  = Number of Total Shares of the affected Index Component on Trading Day  $t$   
 $B$  = Shares after the share split for every share held before the split

### 3.5.4 Stock Distributions

In the case of stock distributions with ex-date on Trading Day  $t + 1$ , it is assumed that the prices change according to the terms of the distribution. The new Number of Total Shares is calculated as follows:

$$x_{i,t+1} = x_{i,t} \times (1 + B)$$

where:

$x_{i,t+1}$  = Number of Total Shares of the affected Index Component on Trading Day  $t + 1$   
 $x_{i,t}$  = Number of Total Shares of the affected Index Component on Trading Day  $t$   
 $B$  = Shares received for every share held

### 3.6 Correction Policy

The Calculation Agent shall make the greatest possible effort to accurately calculate and maintain its indices. However, the occurrence of errors in the index determination process cannot be ruled out. In such cases, the Calculation Agent adheres to its publicly available Correction Policy which can be downloaded from the following url: <https://www.solactive.com/news/documents/>.

### **3.7 Market Disruption**

In periods of market stress, the Calculation Agent shall calculate the Index following predefined and exhaustive arrangements set out in its publicly available Disruption Policy which can be downloaded from the following url: <https://www.solactive.com/news/documents/>.

### **3.8 Consequences of an Extraordinary Event**

In respect of a Business Day on which an Extraordinary Event comes into effect, the Trading Price for an Index Component on such day shall be the last available market price for such Index Component quoted on the Exchange on the day the event came into effect (or, if a market price is not available for the day the event came into effect, the last available market price quoted on the Exchange on a day specified as appropriate by the Calculation Agent), as determined by the Calculation Agent, and this price is used as the Trading Price of the particular Index Component until the end of the day on which the composition of the Index is next set.

In the event of an Insolvency of an issuer of an Index Component the Index Component shall remain in the Index until the next Adjustment Day. As long as a market price for the affected Index Component is available on a Business Day, this shall be applied as the Trading Price for this Index Component on the relevant Business Day, as determined in each case by the Calculation Agent. If a market price is not available on a Business Day the Trading Price for this Index Component is set to zero. The Index Committee may also decide to eliminate the respective Index Component at an earlier point in time prior to the next Adjustment Day. The procedure in this case is identical to an elimination due to and Extraordinary Event.

## 4. Definitions

**“Adjustment Day”** means each day that occurs on the 3<sup>rd</sup> Friday of each calendar month, and if such day is not a Trading Day, the immediately following Trading Day.

**“Affiliated Exchange”** means, in respect of an Index Component, an exchange, a trading or quotation system on which options and futures contracts on the Index Component in question are traded, as specified by the Calculation Agent.

**“BMR”** shall have the meaning as defined in Section “Index Specifications”.

**“Business Day”** means each calendar day other than Saturdays and Sundays.

**“Calculation Agent”** means Solactive AG or any other appropriately appointed successor in this function.

**“Corporate Action”** shall have the meaning as defined in *Section 3.5.1. Principles*.

**“Daily Traded Value”** means, in respect of a Security and of an Trading Day, the product of (i) the closing price of such Share (denominated in the Index Currency) as provided by the Exchange and (ii) the volume traded (measured as a number of Shares) of such Share on the Exchange during such Exchange Trading Day.

**“Data Provider I”** is Clean Horizon. For more information, please visit: <https://www.cleanhorizon.com/>.

**“Data Provider II”** is Fastmarkets MB. For more information, please visit: <https://www.metalbulletin.com/>.

**“Delisting”** means, in respect of an Index Component, an event where the Exchange announces pursuant to the Exchange regulations that the listing of, the trading in or the issuing of public quotes on the Index Component at the Exchange has ceased immediately or will cease at a later date, for whatever reason (provided delisting is not because of a Merger or a Takeover bid), and the Index Component is not immediately listed, traded or quoted again on an exchange, trading or listing system, acceptable to the Calculation Agent.

**“Dividend Correction Factor”** is calculated as 1 minus the applicable withholding tax rate and/or other applicable tax rate currently prevalent in the respective country. The withholding tax rates are published at the webpage <https://www.solactive.com/news/documents/> under ‘Withholding Tax Rates’ and are determined using publicly available information.

**“Eligible Exchange”** means an exchange listed under column ‘Exchanges’ in *Table 1: Eligible Exchanges* in Annex A.

**“Energy Capacity”** is calculated as the sum of the ‘Energy Capacity (MWh)’ (or any successive definition thereof) of all electro-chemical energy storage projects in which such Energy Storage Technology Provider was involved historically, as provided by Data Provider I.

**“Energy Storage Technology Provider”** means, in respect of a Security, the relevant company that is classified as ‘Energy Storage Technology Manufacturer’ (or any successive definition thereof) by Data Provider I.

**“Exchange” (collectively “Exchanges”)** means, in respect of Index and an Eligible Security, the primary exchange where such Eligible Security has its primary listing. The Index Committee may decide to designate a different stock exchange as the “Exchange” in respect of an Eligible Security for tradability reasons, even if the relevant company is only listed there via a Stock Substitute.

**“Extraordinary Event”** means any of the following events:

- a Merger
- a Takeover Bid
- a Delisting
- the Nationalisation of a company
- Insolvency.

**“FactSet”** is an independent third-party financial data provider.

**“FactSet Formula”** means the formula used to access specific financial data on the relevant software provided by FactSet.

**“Free Float Market Capitalization”** means, in respect of a Security and a Selection Day, the free float adjusted market capitalization of the relevant company. As at the date of this document Free Float Market Capitalization is calculated as the multiplication of the Free Float Percentage (as sourced from Thomson Reuters and calculated as Free Float Shares divided by Total Shares Outstanding) multiplied with the Market Capitalization in Index Currency of the share class as of the respective Selection Day.

**“Index Administrator”** shall have the meaning as defined in Section “Index Specifications”.

**“Index Committee”** shall have the meaning as defined in *Section 1.6 Index Committee*.

**“Index Component”** means, in respect of a Selection Day, each Security that shall be included in the Index.

**“Index Component Weight”** means, in respect of a Selection Day and an Index Component, the weight determined in accordance with the methodology described in *Section 2.2 Ordinary Adjustment*.

**“Index Currency”** means the US Dollar (USD).

**“Index Inception Date”** means the date on which the Index was launched and is equal to December 07, 2017.

**“Index Owner”** means Solactive AG or any other appropriately appointed successor in this function.

**“Index Universe”** means, in respect of a Selection Day, all Securities in respect of companies that are identified in accordance with the methodology described in *Section 1.10 Index Universe*. As of the Index Inception Date, the Index Universe consisted of Securities whose ISINs are listed under column ‘ISIN’ in *Table 2 Index Universe in Annex B*.

**“Index Value”** shall have a meaning as defined in *Section 1. Index Specifications*.

**“Insolvency”** occurs with regard to a Security if (A) all shares of the respective issuer must be transferred to a trustee, liquidator, insolvency administrator or a similar public officer as result of a voluntary or compulsory liquidation, insolvency or winding-up proceedings or comparable proceedings affecting the issuer of the Index Components or (B) the holders of the shares of this issuer are legally enjoined from transferring the shares.

**“Merger”** means, in respect of a Security, any of the following events:

- (i) a change in the security class or a conversion of this share class that results in a transfer or an ultimate definite obligation to transfer all the shares in circulation to another legal person,
- (ii) a merger (either by acquisition or through forming a new structure) or a binding obligation on the part of the issuer to exchange shares with another legal person (except in a merger or share exchange under which the issuer of this Index Component is the acquiring or remaining company and which does not involve a change in security class or a conversion of all the shares in circulation),
- (iii) a takeover offer, exchange offer, other offer or another act of a legal person for the purposes of acquiring or otherwise obtaining from the issuer 100% of the shares issued that entails a transfer or the irrevocable obligation to transfer all shares (with the exception of shares which are held and controlled by the legal person), or
- (iv) a merger (either by acquisition or through forming a new structure) or a binding obligation on the part of the issuer of the share or its subsidiaries to exchange shares with another legal person, whereby the issuer of the share is the acquiring or remaining company and it does not involve a change in the class or a conversion of the all shares issued, but the shares in circulation directly prior to such an event (except for shares held and controlled by the legal person) represent in total less than 50% of the shares in circulation directly subsequent to such an event.

**“Merger Date”** means the date on which a Merger is concluded or the date specified by the Calculation Agent if such a date cannot be determined under the law applicable to the Merger.

**“Mining Company”** means, in respect of a Security, the relevant company that is a producer of metals, primarily used for manufacturing batteries, and classified as such by Data Provider II.

**“Nationalisation”** means a process whereby all shares or the majority of the assets of the issuer of the shares are nationalised or are expropriated or otherwise must be transferred to public bodies, authorities or institutions.

**“Producer”** is a list of global Mining Companies classified by Data Provider II as producers (and each such company shall be referred to as a **“Producer”**) of Lithium.

**“Rebalancing Day”** means a day on which the composition of the Index shall be adjusted.

**“Review Day”** means each day that occurs on the 1<sup>st</sup> Friday of each calendar month and if such day is not a Business Day, the immediately following Business Day.

**“Security”** means, in respect of a company, any common share or Stock Substitute that is actively traded on a stock exchange.

**“Selection Day”** means each day that occurs on the 1<sup>st</sup> Friday of May and 1<sup>st</sup> Friday of November, and if such day is not a Business Day, the immediately following Business Day.

**“Stock Substitute”** includes in particular American Depositary Receipts (ADR) and Global Depositary Receipts (GDR).

**“Takeover Bid”** means a bid to acquire, an exchange offer or any other offer or act of a legal person that results in the related legal person acquiring as part of an exchange or otherwise more than 10% and less than 100% of the voting shares in circulation from the issuer of the Index Component or the right to acquire these shares, as determined by the Calculation Agent based on notices submitted to public or self-regulatory authorities or other information considered by the Calculation Agent to be relevant.

**“Three Month Average Daily Traded Value”** means, in respect of a Security and a Selection Day, the sum of daily traded value over a three month period immediately preceding such Business Day divided by the number of Trading Days that occur during such three month period. It is sourced using the FactSet Formula `AVG(XP_TURNOVER)`.

**“Total Shares”** is in respect of an Index Component and any given Business Day the number or fraction of shares included in the Index. It is calculated for any Index Component as the ratio of (A) the Index Component Weight of an Index Component multiplied by the Index value and the Divisor and (B) its Trading Price (converted into the index currency according to the principles laid out in *Section 1.4 Prices and Calculation Frequency* of this document).

**“Trading Day”** means, in respect of an Index, a day on which London Stock Exchange, New York Stock Exchange, Tokyo Stock Exchange and Deutsche Borse Xetra are all open for trading (subject to market disruption events), excluding days on which trading may be ceased prior to the normal Exchange closing time. The Calculation Agent is ultimately responsible as to whether a certain day is a Trading Day with regard to the Index or an Index Component or in any other connection relating to this document.

**“Trading Price”** means, in respect of a Trading Day and an Index component (subject to the provisions given above under “Extraordinary Events”), the closing price on such day determined in accordance with the Exchange regulations. If the Exchange has no closing price for an Index Component, the Calculation Agent shall determine the Trading Price and the time of the quote for the share in question in a reasonable manner.

**“Utility Provider”** means a company that is classified under industry code 4700: Utilities under FactSet Industries and Economic Sectors classification system. Under FactSet Industries and Economic Sectors classification system, companies that are electric utilities, gas distributors, water utilities and alternative power generation are classified under industry code 4700: Utilities.

## 5. Appendix

### 5.1 Contact Details

Solactive AG  
Platz der Einheit 1  
60327 Frankfurt am Main  
Germany

Tel.: +49 (0) 69 719 160 00  
Fax: +49 (0) 69 719 160 25  
Email: [info@solactive.com](mailto:info@solactive.com)  
Website: [www.solactive.com](http://www.solactive.com)

### 5.2 Calculation of the Index – Change in Calculation Method

The application by the Calculation Agent of the method described in this document is final and binding. The Calculation Agent shall apply the methodology described above for the composition and calculation of the Index. However, it cannot be excluded that the market environment, supervisory, legal, financial or tax reasons may require changes to be made to this methodology.

The Calculation Agent may from time to time make changes to this document and the methodology used to calculate the Index, which 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. Despite any modifications and changes the Calculation Agent may make from time to time, it shall take all appropriate steps to ensure that the relevant calculation method is applied in a manner that is consistent with the methodology described above.

### 5.3 Back-testing Assumptions

For the purposes of back-testing the historical Index Values prior to the Index Inception Date, the Index Universe in respect of each Selection Day that occurred prior to May 2017 was assumed to be the same as the Index Universe in respect of the Selection Day occurring in the month of May 2017 that was determined as of the Index Inception Date.



## Annex A

Table 1: Eligible Exchanges

No.	Exchange Code	Exchange
1	NA	Equity Euronext Amsterdam Netherlands
2	FP	Equity Euronext Paris France
3	FH	Equity Helsinki Stock Exchange Finland
4	HK	Equity Hong Kong Stock Exchange China
5	KP	Equity Korea Exchange Korea
6	LN	Equity London Stock Exchange United Kingdom
7	UQ	Equity Nasdaq Global Market United States
8	UW	Equity Nasdaq Global Select Market United States
9	UN	Equity New York Stock Exchange United States
10	NO	Equity Oslo Norway
11	VX	Equity SIX Swiss (formerly Virt-X Switzerland)
12	SE	Equity SIX Swiss Exchange Switzerland
13	SS	Equity Stockholm Stock Exchange Sweden
14	TT	Equity Taiwan Stock Exchange Taiwan
15	JT	Equity Tokyo Stock Exchange Japan
16	CT	Equity Toronto Stock Exchange Canada
17	GY	Equity Xetra Germany
18	LI	Equity London International Exchange
19	AT	Equity Australian Securities Exchange Australia
20	AV	Equity Vienna Stock Exchange Austria
21	NZ	Equity New Zealand Exchange
22	ID	Equity Irish Stock Exchange Ireland
23	DC	Equity NASDAQ OMX Copenhagen Denmark
24	SB	Equity Barcelona Stock Exchange Spain
25	SN	Equity Madrid Stock Exchange Spain
26	SQ	Equity Sociedad de Bolsas Spain
27	IM	Equity Borsa Italiana Italy
28	PL	Equity Euronext Lisbon Portugal
29	SP	Equity Singapore Exchange Singapore
30	BB	Equity Euronext Brussels Belgium

## Annex B

**Table 2: Index Universe**

Table below shows the Index Universe as of the Index Inception Date.

Energy Storage Technology Provider	ISIN	Technology Group
MAXWELL TECHNOLOGIES INC	US5777671067	Capacitor
DMG MORI AG	DE0005878003	Flow based batteries
REDFLOW LTD	AU000000RFX8	Flow based batteries
REDT ENERGY PLC	GB00B11FB960	Flow based batteries
ZBB ENERGY CORP	US98876R3030	Flow based batteries
SUMITOMO ELECTRIC INDUSTRIES	JP3407400005	Flow & Lithium based batteries
PHOTON ENERGY NV	NL0010391108	Lead based batteries
ENERSYS	US29275Y1029	Lead based batteries
EXIDE TECHNOLOGIES GMBH	N/A	Lead based batteries
FURUKAWA BATTERY CO LTD	JP3827600002	Lead based batteries
HAGEN BATTERIE AG	DE0007241259	Lead based batteries
SHIN-KOBE ELECTRIC MACHINERY	JP3376200006	Lead based batteries
ROBERT BOSCH GMBH	N/A	Lithium based batteries
VECTRA CO	US6708721005	Lithium based batteries
JOHNSON CONTROLS INTERNATIONAL	IE00BY7QL619	Lithium based batteries
ABB LTD-REG	CH0012221716	Lithium based batteries
BYD CO LTD-H	CNE100000296	Lithium based batteries
ELECTROVAYA INC	CA28617B1013	Lithium based batteries
ENSYNC INC	US29359T1025	Lithium based batteries
EVONIK INDUSTRIES AG	DE000EVNK013	Lithium based batteries
GENERAL ELECTRIC CO	US3696041033	Lithium based batteries
HIGHPOWER INTERNATIONAL INC	US43113X1019	Lithium based batteries
KOKAM CO LTD	KR7040480006	Lithium based batteries
LECLANCHE SA-REG	CH0110303119	Lithium based batteries
LG CHEM LTD	KR7051910008	Lithium based batteries
MITSUBISHI ELECTRIC CORP	JP3902400005	Lithium based batteries
NEC CORP	JP3733000008	Lithium based batteries
NIDEC CORP	JP3734800000	Lithium based batteries
NISSAN MOTOR CO LTD	JP3672400003	Lithium based batteries
PANASONIC CORP	JP3866800000	Lithium based batteries
SAFT GROUPE SA	FR0010208165	Lithium based batteries
SAMSUNG SDI CO LTD	KR7006400006	Lithium based batteries
SANYO CHEMICAL INDUSTRIES	JP3337600005	Lithium based batteries
SK INNOVATION CO LTD	KR7096770003	Lithium based batteries
SONY CORP	JP3435000009	Lithium based batteries
TABUCHI ELECTRIC CO LTD	JP3470200001	Lithium based batteries
TESLA INC	US88160R1014	Lithium based batteries
TOSHIBA CORP	JP3592200004	Lithium based batteries
ULTRALIFE CORP	US9038991025	Lithium based batteries
VALENCE TECHNOLOGY INC	US9189141024	Lithium based batteries
GS YUASA CORP	JP3385820000	Lithium & Lead based batteries
HITACHI CHEMICAL CO LTD	JP3785000005	Lithium & Lead based batteries
NGK INSULATORS LTD	JP3695200000	Sodium based batteries

  

Mining Company	ISIN	Metal
ALBEMARLE CORP	US0126531013	Lithium producer
FMC CORP	US3024913036	Lithium producer
OROCOBRE LTD	AU0000000ORE0	Lithium producer
QUIMICA Y MINERA CHIL-SP ADR	US8336351056	Lithium producer