

MARKET CONSULTATION - SOLACTIVE BATTERY VALUE- CHAIN INDEX

11 April 2022



Content of the Market Consultation

Solactive AG has decided to conduct a Market Consultation with regard to changing the Index Methodology of the following Index (the 'Index'):

NAME	RIC	ISIN
Solactive Battery Value-Chain Index	.SOLBATT	DE000SLA33F4

Rationale for Market Consultation

The Index aims to track the performance of a basket of stocks of companies that are providers of certain electro-chemical energy storage technology and mining companies that produce metals that are primarily used for manufacturing batteries.

As per the current selection process of the Index, there is no exclusion criteria for filtering out ESG non-compliant companies. There is however an ever more increasing demand for ESG compliant investments in the market in general which is among others driven by regulatory requirements.

Solactive has determined that the methodology of the Index shall be amended to include the ESG activity screens from a restrictive exclusion list. The suggested enhanced list will screen the companies on various criteria related to ESG. A more detailed overview of the considered activities can be found below in section "Proposed Changes to the Index Guideline".

Additionally, to ensure investability of the Index as well as reflect the actual liquidity available in the market, the weighting concept is proposed to be amended.

Finally, in order to make the Index much more reactive to the underlying developments in the battery technology market and much more proactive when selecting the index composition, Solactive proposes to determine the INDEX UNIVERSE twice a year in May and the November on each Selection Day.

Proposed Changes to the Index Guideline

The following Methodology changes are proposed in the following points of the Index Guideline: (ordered in accordance with the numbering of the affected sections):

Section 2.1 Index Universe

Old text:

On each Selection Day that occurs in the month of May, the Index Universe shall be determined by the INDEX ADMINISTRATOR 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 unless the companies that were included in the INDEX UNIVERSE no longer qualify as eligible as a result of the occurrence of a spin-off or an extraordinary event. Such companies are excluded from the Index Universe in November if they no longer fulfill the Strategy of the Index outlined in Section 1.1.

[...]

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

[...]

New text:

On each Selection Day that occurs in the month of May and November, the Index Universe shall be determined by the INDEX ADMINISTRATOR as described below.

[...]

On each Selection Day that occurs in the month of May and November, the INDEX ADMINISTRATOR shall determine the Index Universe which shall comprise of Securities of:

[...]

Section 2.1.1 Selection of Energy Storage Technology Providers

Old text:

On each Selection Day that occurs in the month of May, the INDEX ADMINISTRATOR 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:

[...]

New text:

On each Selection Day that occurs in the month of May and November, the INDEX ADMINISTRATOR 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:

[...]



Section 2.1.3 ESG Exclusions

New section is proposed to be included:

On each SELECTION DAY, any company included in the ESG EXCLUSIONS INDEX as determined by SOLACTIVE is then excluded from the INDEX UNIVERSE.

The ESG EXCLUSIONS INDEX is reconstituted by SOLACTIVE on a semi-annual basis and the methodology by reference to which the ESG EXCLUSIONS INDEX is constructed, together with the most recent applicable categories and inclusion criteria, is available on Solactive website:.

The applicable categories and inclusion criteria of the ESG EXCLUSIONS INDEX as of 03 March 2022 are set out in ANNEX B of this document.

Section 2.2. SELECTION OF THE INDEX COMPONENTS

Old text:

[...]

1. If such Selection Day occurs in the month of May, the INDEX ADMINISTRATOR 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 unless the companies that were included in the INDEX UNIVERSE no longer qualify as eligible as a result of the occurrence of a spin-off or an extraordinary event. Such companies are excluded from the Index Universe In November if they no longer fulfill the Strategy of the Index outlined in Section 1.1

[...]

New text:

[...]

1. If such Selection Day occurs in the month of May and November, the INDEX ADMINISTRATOR shall determine the securities that constitute the Index Universe in accordance with the methodology described in Section 2.1 Index Universe Requirements.

[...]



Section 2.3. WEIGHTING OF THE INDEX COMPONENTS

Old text:

[...]

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.

[...]

New text:

[...]

In respect of each Selection Day and/or Review Day immediately preceding such Adjustment Day that is a REBALANCE DAY, each Index Component is weighted in accordance with the following steps:

- I. Each Index Component is initially weighted equally w_i^* ;
- II. Then, for each Index Component the maximum weight $w_{i,max}$ is calculated as:

$$w_{i,max} = \text{Min}\{w_{i,max}^{liquidity}, w_{i,max}^{ownership}\}$$

where,

$$w_{i,max}^{liquidity} = \frac{(1 - \text{Haircut}) \times \text{Liquidity Measure} \times \text{Participation (\%)}}{\text{AuM} \times \text{Turnover}}$$

$$w_{i,max}^{ownership} = \frac{\text{Market Cap} \times \text{Max Ownership}}{\text{AuM}}$$

Where:



AuM refers to the maximum of total assets under management in US Dollars of ETFs tracking the index as listed in Appendix D and USD 50 million;

Haircut is assumed to be 10%;

Liquidity Measure refers to the 3-month Average Daily Value Traded in US Dollars;

Market Cap refers to the Free Float Market Capitalization of a company in US Dollars;

Max Ownership is assumed to be 7.5%;

Participation (%) is assumed to be 100%;

Turnover refers to the hypothetical fund turnover in respect of each rebalancing date and is assumed to be 40%.

III. In respect of Index Components whose initial weight w_i^* is greater than $w_{i,max}$, the Target Index Weight w_i shall be set to be equal to $w_{i,max}$, and the excess weight is then calculated as follows:

$$w_{i,excess} = w_i^* - w_{i,max}$$

The cumulative excess weight is calculated as the sum of $w_{i,excess}$ in respect of all Index Components whose initial weight w_i^* is greater than $w_{i,max}$.

The cumulative excess weight is then proportionally distributed across all Index Components whose initial weight w_i^* is less than $w_{i,max}$ such that the above maximum weight cap condition is fulfilled. This can be an iterative process until 100% weight is fully allocated and all conditions above are fulfilled.

[...]

Section 6. DEFINITIONS

The following definition is proposed to be included:

"Data Provider III" is Sustainalytics. For more information, please visit: www.sustainalytics.com.

Old text:

"INDEX UNIVERSE" is the sum of all financial instruments which fulfill the INDEX UNIVERSE REQUIREMENTS. As of the LIVE DATE, the INDEX UNIVERSE consisted of SECURITIES whose ISINs are listed under column 'ISIN' in Table 2: Index Universe in Annex B.

New text:

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



Annex B

Old text:

Table 2: Index Universe

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



Energy Storage Technology Provider	ISIN	Technology Group
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	AU00000000RE0	Lithium producer
QUIMICA Y MINERA CHIL-SP ADR	US8336351056	Lithium producer

New text:

As of February 2022 the following inclusion criteria for the categories below were applicable.

Please refer to the most recent document available under the URL as specified in section '2.1. Index Universe Requirements' above for the most recent applicable categories and inclusion criteria.

Categories	Inclusion Criterion
Established norms around Environment, Human Rights, Corruption and Labour Rights	Non-Compliance with the UNGC
Controversy	Controversies with the Level 5
Tobacco	(5% Production <OR> 5% Retail <OR> 5% Related Products/Services)*
Defense – Weapons	(10% Military Contracting Weapons <OR> 10% Military Contracting Weapons – Related Products/Services)*
Defense – Controversial Weapons	Any direct Involvement or Any indirect Involvement through corporate ownership
Coal	(30% Thermal Coal Extraction <OR> 30% Power Generation <OR> 30% Supporting Products/Services)*
Conventional Oil & Gas	25% Production*

Note:

- % figures refer to revenue threshold (for degree of involvement). The criterion is fulfilled if involvement is equal to or above such threshold.



-
- The terminology used in the table above is specific to the DATA PROVIDER III and may change from time to time.

*this includes significant corporate ownership (were a company holds a stake greater than 50% in an involved company, the revenues of the involved company are attributed to the company).

Any company included in the INDEX UNIVERSE which fulfills any of the criteria set out above shall be a component of the **ESG EXCLUSIONS INDEX**. The primary listing for each company is selected as INDEX COMPONENT.

For the avoidance of doubt, any company for which an evaluation of the criteria is not possible due to the non-availability of relevant data with the DATA PROVIDER III, shall not be a component of the **ESG EXCLUSIONS INDEX**.

Annex C

The Annex C is proposed to be included:

Name of the ETF used to determine the AuM:

L&G Battery Value-Chain UCITS ETF, ISIN: IE00BF0M2Z96



Feedback on the proposed changes

If you would like to share your thoughts with Solactive, please use this consultation form and provide us with your personal details and those of your organization.

Name	
Function	
Organization	
Email	
Phone	
Confidentiality (Y/N)	

Solactive is inviting all stakeholders and interested third parties to evaluate the proposed changes to the Methodology for the Solactive Battery Value-Chain Index and welcomes any feedback on how this may affect and/or improve their use of Solactive indices.



Consultation Procedure

Stakeholders and third parties who are interested in participating in this Market Consultation, are invited to respond until 26th of April 2022 (cob).

Subject to feedback received on this Market Consultation, the changes mentioned above are intended to become effective on 6th of May 2022.

Please send your feedback via email to marketconsultation@solactive.com, specifying "Market Consultation Solactive Battery Value-Chain Index" as the subject of the email, or

via postal mail to: Solactive AG
Platz der Einheit 1
60327 Frankfurt am Main
Germany

Should you have any additional questions regarding the consultative question in particular, please do not hesitate to contact us via above email address.

CONTACT

Solactive AG

German Index Engineering

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

Website: www.solactive.com

© Solactive AG