

INDEX GUIDELINE

Solactive MicroSectors™ U.S. Big Oil Index

Version 1.0

12 March 2019



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Introduction

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INTRODUCTION

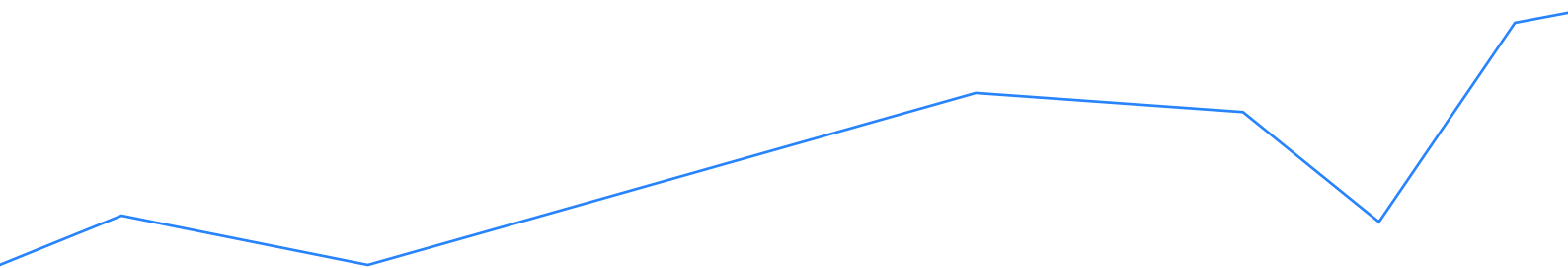
This document (the "Guideline") is to be used as a guideline with regard to the composition, calculation and maintenance of the Index. Any changes made to the Guideline are initiated by the Committee specified in Section 1.6. The Index is calculated and published by Solactive AG. The name "Solactive" is trademarked. MicroSectors™ is a registered trademark of REX Shares, LLC ("REX") and has been licensed for use for certain purposes by Solactive AG.

It contains the underlying principles and rules regarding the structure and operation of the Solactive MicroSectors™ U.S. Big Oil Index (the "Index"). Solactive AG shall make every effort to implement the applicable 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 does not constitute a 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.



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Index Specifications



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1 INDEX SPECIFICATIONS

- > The Solactive MicroSectors™ U.S. Big Oil Index (the "Index") is an Index of Solactive AG developed in collaboration with REX Shares, LLC and is calculated and distributed exclusively by Solactive AG.
- > The Index intends to track the price movements of a portfolio of stocks tracking the top 10 US listed stocks from the Energy/Oil Sector with the largest free-float market capitalization.
- > The Index is calculated in a Price Return, Net Total Return and Gross Total Return version.
- > The Index is published in USD.

1.1 SHORT NAME AND IDENTIFIERS

The Index is distributed under the following identifiers:

Name	Return Type	Currency	ISIN	WKN	RIC	Ticker
Solactive MicroSectors™ U.S. Big Oil Index PR	Price Return	USD	DE000SLA7WV8	SLA7WV	.SOLUSBOP	
Solactive MicroSectors™ U.S. Big Oil Index NTR	Net Total Return	USD	DE000SLA7WW6	SLA7WW	.SOLUSBON	
Solactive MicroSectors™ U.S. Big Oil Index TR	Gross Total Return	USD	DE000SLA7WX4	SLA7WX	.SOLUSBOT	SOLUSBOT

1.2 INITIAL VALUE

The Index is based on 1000 at the close of trading on the start date, 15th of March, 2013.

1.3 DISTRIBUTION

The Index is published via the price marketing services of Boerse Stuttgart GmbH and is distributed to all affiliated vendors. Each vendor decides on an individual basis as to whether it will distribute/display the Index via its information systems.



1.4 PRICES AND CALCULATION FREQUENCY

The price of the Index is calculated real-time, every 15 seconds, on each Business Day based on the prices on the respective Exchanges on which the Index Components are listed. The most recent prices of all Index Components are used. Prices of Index Components not listed in the Index Currency are translated using spot foreign exchange rates quoted by Reuters. Should there be no current price available on Reuters, the most recent price or the Trading Price on Reuters for the preceding Trading Day is used in the calculation. The daily index closing value is calculated using World Market Reuters 4pm London time fixing rate.

The Index is calculated every Business Day from 9:00 a.m. to 4:30 p.m., EST. 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, all Index Components are weighted equally.

1.6 OVERSIGHT

A Committee composed of staff from Solactive AG (the "Committee" or the "Index Committee") is responsible for decisions regarding any amendments to the rules of the index.

Changes to the Guideline are submitted to the Committee for approval.

1.7 PUBLICATION

All specifications and information relevant for calculating the Index are made available on the <http://www.solactive.com> web page and sub-pages.

1.8 HISTORICAL DATA

Historical data will be maintained from the launch of the Index on March 12th, 2019.

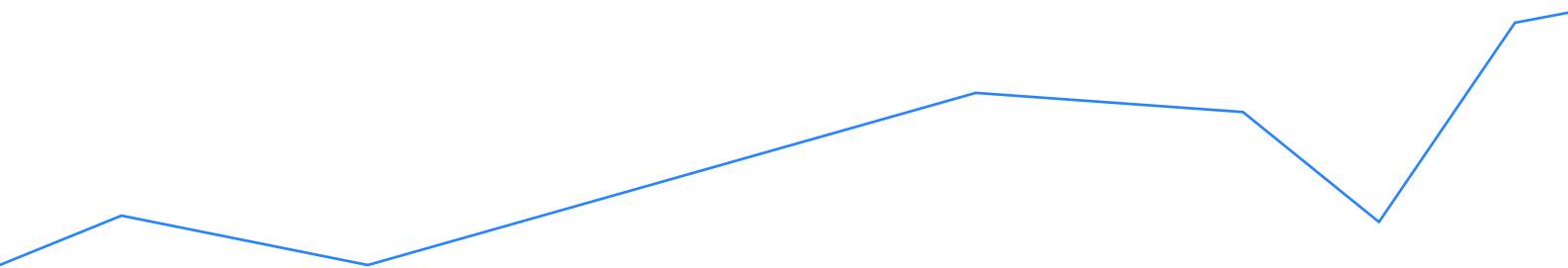
1.9 LICENSING

Licenses to use the Index as the underlying value for derivative instruments are issued to stock exchanges, banks, financial services providers and investment houses by Solactive AG.



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Composition of the Index



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2 COMPOSITION OF THE INDEX

2.1 SELECTION OF THE INDEX COMPONENTS

The initial composition of the Index as well as any ongoing adjustments are based on the following non-discretionary rules.

On the Annual Selection Day, Solactive AG defines the Index Universe based on the below criteria:

1. Member of the Solactive GBS United States Large & Mid Cap Index.
2. US-listed and US domiciled equity securities.
3. Free-Float Market Capitalization above USD 1 billion.
4. Minimum of 1-month and 6-month Average Daily Traded Value above USD 25 million.
5. In case of multiple security lines, only the most liquid share line is allowed.

The selection of the Index Components proceeds as follows based on the Reuters Business Classification:

1. Select all stocks with economic sector: Energy..
2. Select all stocks with business sector: Energy-Fossil Fuels.
3. Select all stocks with industry group: Oil & Gas..
4. Sort the stocks based on their company level free-float market capitalization and select the top 10 names.

On each Monthly Selection Day, the following check is performed:

1. Start with the Index Universe defined within the immediately preceding Annual Selection Day
2. Select all stocks with economic sector: Energy.
3. Select all stocks with business sector: Energy-Fossil Fuels.
4. Select all stocks with industry group: Oil & Gas.
5. Sort the stocks based on their company level free-float market capitalization and assign a rank to each stock. The rank will descend from 1 to 13 where rank 1 will be the stock with the largest free-float market capitalization, rank 2 will be the stock with the second largest free-float market capitalization, rank 3 will be the stock with the third largest free-float market capitalization, and so forth until rank 13 which will be the stock with the thirteenth largest free-float market capitalization.



6. If any of the stocks currently in the index drops below rank 13, then the index will be reconstituted to the top 10 stocks by rank. All stocks will be re-weighted to equal weight on the subsequent Adjustment Day.
7. If there is no stock currently within the Index with a rank below 13, there will be no change to the index composition, but the stocks will still be re-weighted to equal weight on the subsequent Adjustment Day.

2.2 ORDINARY ADJUSTMENT

The composition of the Index is reviewed monthly. The composition of the Index is reviewed on the Selection Day and necessary changes are announced.

The first adjustment will be made in March 2019 based on the Trading Prices of the Index Components on the Adjustment Day.

2.3 EXTRAORDINARY ADJUSTMENT

Any general extraordinary adjustment, if applicable, is triggered and applied in compliance with the rules set forth in the [Solactive Guideline for Extraordinary Corporate Actions](#).

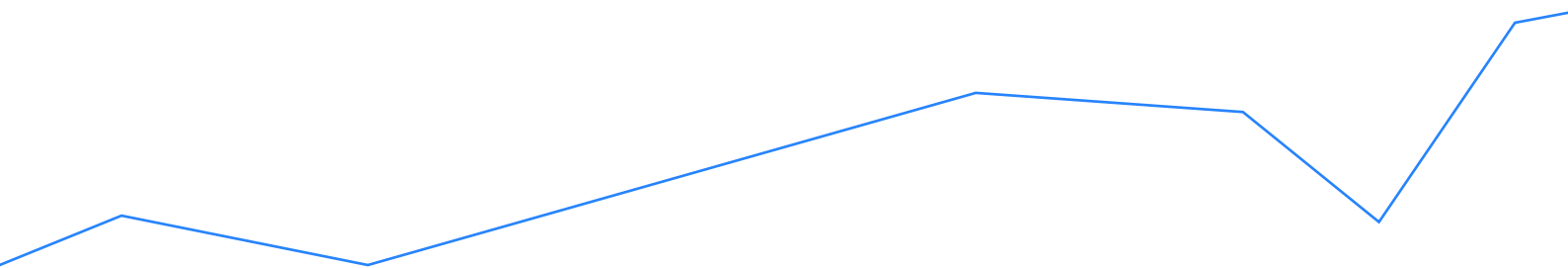
There are however two exceptions to the rules described in the above document:

- > In case of spin-off events, the spun-off company will always be removed and its weight redistributed proportionally among the remaining index constituents.
- > In case of any events leading to the removal of a security from the index (acquisition, delisting, bankruptcy), there will be a replacement of the security to be removed with the security with the largest free-float market capitalization not included in the index, as determined on the last Selection Day immediately preceding the most recent Adjustment Day.



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Calculation of the Index



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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:

$$Index_t = \sum_{i=1}^n (x_{i,t} * p_{i,t})$$

With:

$x_{i,t}$ = Number of Shares of the Index Component i on Trading Day t

$p_{i,t}$ = Price of Index Component i on Trading Day t in Index Currency

3.2 ACCURACY

- > The value of the Index will be rounded to two decimal places.
- > The Number of Shares of each Index Component will 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 Index Shares of the affected Index Component.

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 Index Calculator.

3.4 DIVIDENDS AND OTHER DISTRIBUTIONS

Dividend payments and other distributions are included in the Index, reinvested into the security that will pay the dividend based on the closing price of that security on the trading day before the ex-date. They cause an adjustment of the Number of Shares. Price Return indices see only special dividends reinvestment, while total return indices have all dividends reinvested either gross (without any deduction of a withholding tax rate) or net (net of the respective withholding tax rate).

Upon the payment of a dividend, the new Number of Shares is calculated as follows:



$$x_{i,t} = x_{i,t-1} * \frac{p_{i,t-1}}{p_{i,t-1} - D_{i,t}}$$

with:

$x_{i,t}$ = Number of Shares of the Index Component i on Trading Day t

$p_{i,t-1}$ = Closing Price of the Index Component i on Trading Day t-1

$D_{i,t}$ = Dividend amount on the ex-dividend date on Trading Day t multiplied by the Dividend Correction Factor of the respective country

3.5 CORPORATE ACTIONS

3.5.1 Principles

Following the announcement by an issuer of an Index Component of the terms and conditions of a corporate action, the Index Calculator determines whether such corporate action has a dilutive, concentrative or similar effect on the price of the respective Index Component.

If this should be the case, the Index Calculator shall make the necessary adjustments that are deemed appropriate in order to take into account the dilutive, concentrative or similar effect and shall determine the date on which this adjustment shall come into effect.

3.5.2 Capital increases

In the case of capital increases (an increase in the size of a company's equity capital, either through the issue of new shares or an increase in the par value of its capital stock) the new Numbers of Shares are calculated as follows:

$$x_{i,t} = x_{i,t-1} * \frac{p_{i,t-1}}{p_{i,t-1} - rB_{i,t-1}} \quad \text{with:} \quad rB_{i,t-1} = \frac{p_{i,t-1} - B}{BV + 1}$$

with:

$x_{i,t}$ = Number of Shares of Index Component i on the day of the distribution

$x_{i,t-1}$ = Number of Shares of Index Component i on the day prior to the distribution

$p_{i,t-1}$ = Closing price on the day prior to ex-date

$rB_{i,t-1}$ = Calculated value of the rights issue

B = Price of rights issue

BV = Subscription ratio

$B = 0$ if capital is increased from the company's own resources.



3.5.3 Capital reductions

In the case of capital reductions, through a share repurchase, the new Number of Shares is determined as follows:

$$x_{i,t} = x_{i,t-1} * \frac{p_{i,t-1}}{p_{i,t-1} - rC_{i,t-1}} \quad \text{with:} \quad rC_{i,t-1} = \frac{TP - p_{i,t-1}}{C - 1}$$

with:

$x_{i,t}$ = Number of Shares of Index Component i on the day of the reduction

$x_{i,t-1}$ = Number of Shares of Index Component i on the day prior to the reduction

$p_{i,t-1}$ = Closing price on the day prior to ex-date of the distribution

$rB_{i,t-1}$ = Calculated value of the capital reduction

C = Subscription ratio

TP = Tender price for every share which can be sold

3.5.4 Share splits and par value conversions

In the case of share splits and par value conversions it is assumed that the prices change in ratio to the number of shares or to the par values. The new Number of Shares is calculated as follows:

$$x_{i,t} = x_{i,t-1} * \frac{N_{i,t-1}}{N_{i,t}}$$

with:

$N_{i,t-1}$ = Former par value of security class i (or new number of shares)

$N_{i,t}$ = New par value of security class i (or former number of shares)

$x_{i,t}$ = Number of Shares of the affected Index Component on the day of the transaction

$x_{i,t-1}$ = Number of Shares of the affected Index Component on the day prior to the transaction

3.6 MISCELLANEOUS

3.6.1 Recalculation

Solactive AG makes the greatest possible efforts to accurately calculate and maintain its indices. However, the occurrence of errors in the index determination process cannot be ruled out. In such cases, Solactive AG adheres to its publicly available [Correction Policy](#).



3.6.2 Market Disruption

In periods of market stress, Solactive AG calculates its indices following the predefined and exhaustive arrangements set out in its publicly available [Disruption Policy](#).



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Definitions

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4 DEFINITIONS

The "**Adjustment Day**" is the third Friday of each month. If this day is not a Trading Day, then the Adjustment Day will be postponed to the next available Trading Day.

The "**Annual Selection Day**" is the day which falls on the first Business Day of March.

A "**Business Day**" is any day on which the New York and NASDAQ Stock Exchanges are open for trading.

The "**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 current list of tax rates can be found on our website, under section "[Documents](#)". For gross index versions the withholding tax rate is zero.

The "**Exchange**" is, in respect of the Index and every Index Component, the respective exchange where the Index Component has its listing. The Committee may decide to declare a different stock exchange the "Exchange" for trading reasons, even if the company is only listed there via a Stock Substitute.

The "**Index Calculator**" is Solactive AG or any other appropriately appointed successor in this function.

The "**Index Currency**" is USD.

The "**Index Component**" is each share currently included in the Index.

The "**Free-float Market Capitalization**" is with regard to each of the securities in the Index on a Selection Day the share class-specific Market Capitalization for any security in the Index Universe. It is calculated as the product of the float shares outstanding (as sourced from data vendors) and the Trading Price of the share class as of the respective Selection Day.

A "Monthly Selection Day" is the day which falls on the first Business Day of January, February, April, May, June, July, August, September, October, November and December.

The "**Number of 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 Percentage Weight of an Index Component multiplied by the Index Value and (B) its Trading Price (converted into the Index Currency according to the principles laid out in Section 1.4 of this document).

The "**Percentage Weight**" of an Index Component is the ratio of its Trading Price multiplied by its Number of Shares divided by the Index value.

The "**Selection Day**" is the day which falls on the first Business Day of each month.

With regard to an Index Component, the "**Trading Price**" in respect of a Trading Day is the closing price on this Trading Day determined in accordance with the Exchange regulations. If the Exchange has no closing price for an Index Component, the Index Calculator shall determine the Trading Price and the time of the quote for the share in question in a manner that appears reasonable to it.

A "**Trading Day**" is in relation to the Index or an Index Component a Trading Day on the Exchange (or a day that would have been such a day if a market disruption had not occurred), excluding days on which trading may be ceased prior to the normal Exchange closing time. The Index Calculator is ultimately responsible



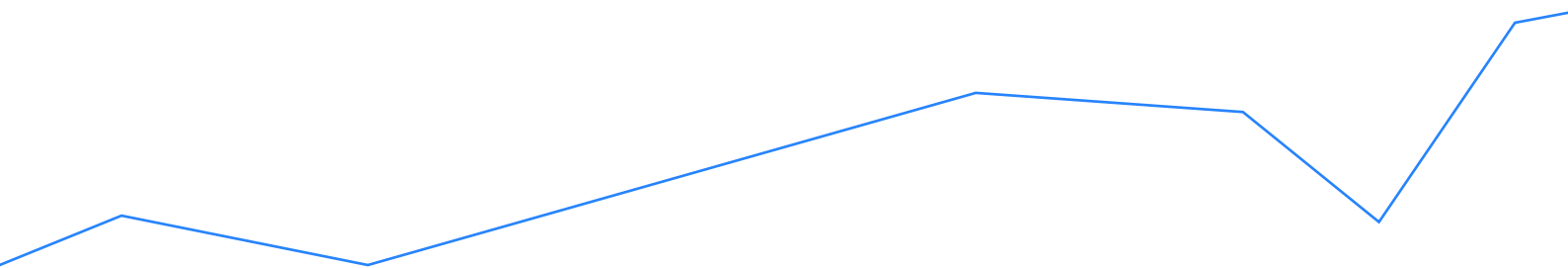
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as to whether a certain day is a Trading Day with regard to the Index or an Index Component or in any other connection relating to this document.



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Appendix



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5 APPENDIX

5.1 CONTACT DATA

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5.2 CHANGES IN CALCULATION METHOD

The application by the Index Calculator of the method described in this document is final and binding. The Index Calculator 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, financial or tax reasons may require changes to be made to this method. The Index Calculator 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 Calculator is not obliged to provide information on any such modifications or changes. Despite the modifications and changes, the Index Calculator will take the appropriate steps to ensure a calculation method is applied that is consistent with the method described above.