

MAC Global Solar Energy Index – Proposed New Index Methodology 03-11-2021

Index Objective – The MAC Global Solar Energy Index (SUNIDX) is a rules-based global stock index that seeks to track the global solar energy sector by measuring the performance of selected solar stocks that meet the specified eligibility criteria. The Index is a modified float-adjusted market-capitalization-weighted Index subject to Solar Exposure Scores and other constraints as detailed in the Index methodology.

Eligibility Criteria

- **Security types** -- Eligible securities for inclusion in the Index are common stocks, ADRs, GDRs, and REITs.
- **Multiple Share Classes and Dual-Listed Companies** – Each company is listed once by the Designated Listing, chosen as the share class listed on an eligible exchange with both the highest float-adjusted market capitalization and 1-year median daily trading value.
- **Country Inclusion Criteria** -- The security must be listed on a primary exchange in one of the countries as shown in Table 1. There is no limitation on the country where a company's headquarters or legal domicile may be located, which may differ from where a company's stock is listed.

Table1

Country	Primary Exchange(s)
Australia	Australian Stock Exchange
Austria	Wiener Bourse
Belgium	Euronext Brussels
Canada	Toronto Stock Exchange, TSX Venture Exchange
Denmark	NASDAQ Copenhagen
Finland	NASDAQ Helsinki
France	Euronext Paris
Germany	Xetra Stock Exchange
Hong Kong	Hong Kong Stock Exchange
Ireland	Irish stock exchange
Israel	Tel Aviv Stock Exchange
Italy	Borsa Italiana
Japan	Fukuoka Stock Exchange, Nagoya Stock Exchange, Tokyo Stock Exchange, Sapporo Stock Exchange
Luxembourg	Luxembourg Stock Exchange
Netherlands	Euronext Amsterdam
New Zealand	New Zealand Stock Exchange
Norway	Oslo Bors
Portugal	Euronext Lisbon
Singapore	Singapore Stock Exchange

South Korea	KOSDAQ Stock Exchange, Korean Stock Exchange
Spain	Mercado Continuo Espanol
Sweden	NASDAQ Stockholm (excluding Nasdaq First North Market)
Switzerland	SWX Europe, Swiss Stock Exchange (SWX)
Taiwan	Taipei Exchange, Taiwan Stock Exchange
United Kingdom	London Stock Exchange, London Stock Exchange (IOB)
United States	NASDAQ, NYSE American, NYSE Arca, NYSE

- Market Capitalization and Liquidity** -- The minimum threshold for initial inclusion of a stock in the Index is US\$ 250 million of float-adjusted market capitalization and a 3-month average daily trading value of US\$ 750,000 as of the quarterly Data Reference Date, which is the market close on the first business day of March, June, September, and December. The minimum threshold for the continued inclusion of a constituent in the Index at the quarterly Index review is US\$ 125 million of float-adjusted market capitalization and a 3-month average daily trading value of \$375,000 as of the quarterly Data Reference Date, which is the first business day of March, June, September, and December. If this leads to the Index stock count dropping under 20 stocks, the minimum thresholds for initial and continued inclusion shall be relaxed such that the 20-stock minimum can be met by progressively adding otherwise eligible stocks from the annual Solar Stock Universe list in the order of the stocks with the highest float-adjusted market capitalization first. If there are no eligible stocks to choose from, the stocks about to be dropped will be kept in the Index to meet the 20-stock minimum rule.
- ESG Exclusions** – Stocks will be excluded if the company is engaged in the business of the extraction of coal or petroleum, or if the company is engaged in the business of generating electricity for sale to third parties using coal, petroleum, or nuclear fuel, according to the company’s general business description and the business activities information reported by Trucost, as of the information reference date of April 30. If a company does not have Trucost sector data available, it will be included in the index.

Any stocks covered by S&P Global ESG Scores that receive a S&P Governance and Economic Score of zero as of the April 29 information reference date shall be excluded. Any IPOs or other stocks that may otherwise qualify to be added to the Solar Stock Universe List at the quarterly index reviews shall not be included if the stock has S&P ESG coverage and it has a most recent S&P Governance and Economic Score of zero. If a company does not have S&P Global ESG Scores, it will be included in the index.

- IPO** - A company that recently completed an initial public offering, a direct public offering, or a reverse merger of a private company into a publicly-traded company, and that meets the other Index eligibility criteria, is considered for inclusion as an Index constituent only at the time of the next quarterly Index review, and only after the company has completed at least two (2) months of trading history prior to the quarterly Data Reference Date, which is the first business day of March, June, September, and December. This trading history requirement does not apply to companies that were spun off from an existing Index constituent. If a stock considered for Index inclusion under this section has traded for less than three months, then the minimum average daily trading value shall be for the number of days that the stock has actually traded, rather than

the normal 3-month period specified in the Market Capitalization and Liquidity section. For a reverse merger, the trading value day count shall begin on the day that the merger takes effect.

Stock Selection

- **Solar Stock Universe List** -- Once each year, with an information reference date of April 30, a new Solar Stock Universe List is generated consisting of solar stocks with (1) company revenue, or other relevant metric, from solar business activities of at least one-third of total revenue, (2) a listing of an eligible security on an eligible exchange, as specified herein, and (3) a float-adjusted market capitalization of at least US\$ 75 million and a 3-month average daily trading value of at least US\$ 250,000. Solar stocks are primarily identified by searching company business descriptions and other company information sources for relevant keywords. A company may be excluded from the Solar Stock Universe List at the annual List formulation if that company does not provide sufficient publicly-available information for a determination to be made of the percentage of the company's solar business activity.
- **Solar Exposure Score** – Companies that receive between about two-thirds and 100% of their revenue, or other relevant metric, from solar business activities are assigned a Solar Exposure Score of 1.0. Companies that receive between about one-third and about two-thirds of their revenue, or other relevant metric, from solar business activities are assigned a Solar Exposure Score of 0.5. Companies that receive less than about one-third of their revenue, or other relevant metric, from solar business activities are excluded from consideration for inclusion in the Index. Solar Exposure Scores are assigned to a stock annually at the same time as the new annual Solar Stock Universe List is generated with an information reference date of April 30. Solar Exposure Scores are typically based on information provided in a company's most recent annual report as of the information reference date of April 30, although other company information sources may be used if necessary.

Examples of solar business activities include, but are not limited to: solar power equipment producers including ancillary or enabling products such as tracking systems, inverters, batteries, or other energy storage systems; suppliers of raw materials, components, or services to solar producers or developers; companies that produce solar equipment fabrication systems; companies involved in solar power system installation, development, integration, maintenance, or finance; companies that produce hydrogen using solar energy; companies that provide solar-powered charging systems for electric vehicles or other electrical devices; companies selling systems that use solar thermal energy to produce heat or electricity; or companies that sell electricity derived from solar power.

Segment revenue is the primary metric used for determining a company's solar business activity exposure, but if a company does not report a solar revenue breakdown, then other metrics may be used for determining solar exposure, with an order of preference of EBITDA, net income, earnings, cash available for distribution (CAFD), cash flow, balance sheet assets, portfolio holdings, or solar electricity capacity or production in energy terms.

Minimum number of stocks – The Index shall seek to have 20 or more constituent stocks. If there is a risk of the number of stocks falling below 20, the eligibility criteria for the inclusion of

a constituent in the Index shall be relaxed as specified in the Market Capitalization and Liquidity section.

Stock Weighting

- At each quarterly Index review, the Index is rebalanced according to the following weighting methodology. The new rebalance weights are determined as of the reweighting reference date, which is the market close on the first business day of the rebalance month (i.e., March, June, September, and December) before the Index review's effective date of the third Friday in March, June, September, and December. The stocks in the Index are first assigned a raw weight based on a standard float-adjusted market capitalization weighting scheme, with any stock having a Solar Exposure Score of 0.5 first having its float-adjusted market capitalization multiplied by 0.5 to reduce its raw weight by half.
- If necessary, the raw weighting factors are modified through a weighting-gap rebalancing algorithm to ensure that, at the time of the reweighting reference date, a Diversification Rule applies such that the aggregate weighting of securities in the Index with individual weightings of more than 4.5% is no more than 45.0% of the total Index. The weight of each individual stock is capped at 10%, with any excess weight distributed pro-rata to the other stocks in the Index. The weighting-gap rebalancing algorithm progressively reduces the weighting gap between adjacent securities, as ranked by their raw weighting factors, on a proportional basis, until the weighting parameters specified above are met. If the algorithm is unable to produce a result that meets the Diversification Rule, then the weighting outcome that is available with the lowest total weight of stocks above 4.5% will be used, and the Diversification Rule will be relaxed so that the total weight of stocks over 4.5% can exceed 45% for that quarterly Index review.
- The Index shall also seek to meet a rule (70% Minimum Liquidity Rule) that constituent stocks, that in the aggregate account for at least 70% of the weight of the Index, each shall have a minimum global monthly trading volume of 250,000 shares, or minimum global notional volume traded per month of US\$ 25,000,000, averaged over the last six months. If this rule is not met, then individual stocks that do not meet this rule shall be progressively dropped from the Index beginning with the stocks that have the smallest trading volume, until the rule is met, subject to the constraint that the number of the stocks in the Index shall not drop below 20.
- The Index follows an "80% investment policy" whereby at least 80% of the combined weight of the Index constituents shall be represented by companies that derive at least 50% of their revenue¹, from solar business activities. In order to comply with this policy, if necessary, stocks with less than 50% solar revenue will not be initially included in the Index, and if still necessary, stocks with less than 50% solar revenue will be progressively dropped from the Index in the order of the smallest float-adjusted market capitalization stocks first, until the policy requirement is met, subject to the constraint that the number of stocks in the Index shall not drop below 20.

¹ For stocks that don't have segment revenue, the same relevant metric that was used to determine the solar exposure will be used here

The stock weights will always be determined to satisfy the constraints specified in the following order: Minimum number of stocks in the Index, the Diversification Rule, the 70% Minimum Liquidity Rule, and the 80% investment policy.

Quarterly Index Review

- The Index Committee shall review the Index on a quarterly basis, with the results taking effect after the close of the global trading day on the third Friday in March, June, September, and December. The Index Committee at each quarterly review will (1) determine any new additions or deletions of Index constituents, and (2) implement a rebalancing of the constituent weights as defined by the methodology herein.
- In order to accomplish this task, the Index Committee at each quarterly Index review will add to the annual Solar Stock Universe List any solar-company IPOs, direct listings, or reverse mergers that took place since the last review and that otherwise meet the eligibility criteria. Also, any new candidate for inclusion in the Index shall first be reassessed with the latest available information to determine the percentage of its solar business activities, and if that percentage is below one-third of total revenue or other relevant metric, it shall not be included in the Index and shall be dropped from the Solar Stock Universe List. At the June quarterly review, the Index Committee will implement the new annual Solar Stock Universe List that was compiled with information that was current as of the reference date of April 30.
- After any revisions are made to the Solar Stock Universe List, then stocks are added to or deleted from the Index using the Solar Stock Universe List and the eligibility requirements for the minimum float-adjusted market cap and average daily trading value, subject to the other methodology constraints defined herein.

Corporate Actions

- Between quarterly Index reviews, a company may be deleted from the Index due to corporate events such as mergers, acquisitions, takeovers, or delistings. An Index constituent that is under a trading halt or suspension will be reviewed on an ongoing basis for possible deletion.
- A distribution by an existing Index constituent to its shareholders of a publicly-traded spin-off will automatically be included in the Index initially, but will be dropped from the Index at the next quarterly review if the spun-off company does not meet the standard Index constituent criteria. The average daily trading value for testing whether a spin-off should remain in the Index shall be for the number of days the spin-off has actually been trading, which is likely to be less than the normal 3-month period specified in the Market Capitalization and Liquidity section. The parent company that conducted the spin-off will also be reevaluated at the next quarterly Index review and will be dropped from the Index if it no longer meets the Index criteria, including the required minimum of one-third of its revenue derived from solar business activities. The solar exposure scores for the parent and the spun-off company will also be reevaluated at the quarterly rebalance.

Index Information

Index Name:	MAC Global Solar Energy Index Net Total Return
Index Type:	Net Total Return
Index Base Date and Inception:	31-March-2008
Index Launch Date:	31-March-2008
Market Cap Weighting:	Modified Market Cap
Currency of Calculation:	U.S. Dollar (USD)
S&P Dow Jones Indices Code:	SUNIDX
Bloomberg Code:	SUNIDX
Reuters RIC:	.SUNIDX

Index Calculation

The Index will be calculated on any day where an index constituent is open for trading.