

**S&P Dow Jones  
Indices**

A Division of **S&P Global**

# **S&P/TSX Renewable Energy and Clean Technology Index *Methodology***

December 2021

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# Introduction

## Index Objective

The S&P/TSX Renewable Energy and Clean Technology Index measures the performance of companies listed on the Toronto Stock Exchange (TSX) whose core business is in the development and deployment of green technologies. The index includes common stock and income trust units. Constituents are float-adjusted market capitalization (FMC) weighted, subject to a single constituent weight cap of 10%.

## Partnership

The index is calculated and managed by S&P Dow Jones Indices. TMX Group (TMX) is the owner and distributor of all S&P/TSX equity index data. Sustainalytics provides the classification scheme and screens the universe of eligible securities. Sustainalytics is one of the world’s leading providers of ESG (environmental, social and governance) research and analysis.

## Supporting Documents

This methodology is meant to be read in conjunction with supporting documents providing greater detail with respect to the policies, procedures and calculations described herein. References throughout the methodology direct the reader to the relevant supporting document for further information on a specific topic. The list of the main supplemental documents for this methodology and the hyperlinks to those documents is as follows:

Supporting Document	URL
S&P Dow Jones Indices’ Equity Indices Policies & Practices Methodology	<a href="#">Equity Indices Policies &amp; Practices</a>
S&P Dow Jones Indices’ Index Mathematics Methodology	<a href="#">Index Mathematics Methodology</a>
S&P Dow Jones Indices’ Float Adjustment Methodology	<a href="#">Float Adjustment Methodology</a>

This methodology was created by S&P Dow Jones Indices to achieve the aforementioned objective of measuring the underlying interest of each index governed by this methodology document. Any changes to or deviations from this methodology are made in the sole judgment and discretion of S&P Dow Jones Indices so that the index continues to achieve its objective.

# Eligibility Criteria

## Eligibility Factors

**Domicile.** Issuers of index securities must be incorporated, established in the case of income trusts, or formed in the case of limited partnerships, under Canadian federal, provincial, or territorial jurisdictions and listed on the TSX.

**Renewable Energy and Clean Technology Classification.** A security must be classified as a renewable and clean technology company according to the renewable and clean technology classification system.

Stocks are classified by Sustainalytics according to criteria which include five key thematic areas:

1. Renewable Energy – Production and Distribution,
2. Renewable Energy – Manufacturing and Technologies,
3. Energy Efficiency,
4. Waste Reduction and Water Management; and
5. Low Impact Materials and Products.

*For details regarding the Renewable Energy and Clean Technology classification system developed by Sustainalytics, please refer to Appendix II.*

**Market Capitalization.** A security must be greater than or equal to C\$ 100 million in quoted (float-adjusted) market value (QMV), based on the volume weighted average price (VWAP) on the TSX, over the last 10 trading days of the month-end prior to the Annual Review.

*For details regarding float methodology, please refer to S&P Dow Jones Indices' Float Adjustment Methodology.*

**Liquidity.** Based on available public information, a security must meet the following criteria.

- The float-adjusted turnover ratio (total number of shares traded in Canada and U.S. in the previous 12 months divided by float-adjusted shares outstanding at the end of the period) must be at least 0.20. For dual-listed stocks, liquidity must be at least 0.10 when using Canadian volume only.

**Multiple Classes of Stock.** All publicly listed multiple share class lines are eligible for index inclusion, subject to meeting the eligibility criteria. For more information regarding the treatment of multiple share classes, please refer to Approach A within the Multiple Share Classes section of the S&P Dow Jones Indices' Equity Indices Policies & Practices Methodology.

Unlisted share class lines are not combined with any listed share class lines, but these unlisted share class lines are included when computing company total market capitalization.

In the case of securities that have constrained shares (foreign ownership constraints on a particular class of shares), the calculation of float shares is based on the total issued and outstanding shares of all classes, not on each class separately.

**Eligible Securities.** Securities issued by mutual fund corporations, preferred shares, exchangeable shares, warrants, installment receipts, USD-denominated securities and other securities deemed

inappropriate by the Index Committee, from time to time, are not eligible for inclusion in the index. Installment receipts are not eligible for inclusion in the index, but can be used in lieu of common share trading history. Securities that are “paper-clipped” combinations of equity and debt, and which can be separated by holders, are not eligible. “Stapled” securities, in which a combination of securities trade as one and cannot be broken apart, are eligible for inclusion. Income Deposit Securities (IDS), Enhanced Income Securities (EIS) and Income Participating Securities (IPS) are paper-clipped and, therefore, are ineligible.

To be included in the Eligible Securities Pool, securities must be listed on the TSX for at least six full calendar months as of the month-end prior to the applicable Annual Review.

*For details regarding float methodology, please refer to S&P Dow Jones Indices’ Float Adjustment Methodology.*

# Index Construction

## **Approaches**

The S&P/TSX Renewable Energy and Clean Technology Index is designed to be representative of the Canadian Renewable Energy and Clean Technology market.

## **Constituent Selection**

At each rebalancing, securities listed on the TSX that satisfy the *Eligibility Factors* are selected and form the index.

## **Constituent Weightings**

At each rebalancing, constituents are FMC weighted, subject to a single constituent weight cap of 10%.

*For the Capping Methodology, please refer to Appendix I.*

## **Index Calculations**

The index is calculated by means of the divisor method used in most S&P Dow Jones Indices' equity indices. The index value is simply the index market value divided by the index divisor.

*For more information on the index calculation methodology, please refer to the S&P Dow Jones Indices' Index Mathematics Methodology.*

# Index Maintenance

## Rebalancing

The index rebalances annually, effective after the close on the third Friday in September, with securities added and removed according to the securities' compliance with the *Eligibility Criteria*.

1. Securities under consideration for addition to or deletion from the index are assessed by the Index Committee using the 12-month data ending in August of each year, with respect to trading on the TSX. Publicly available information which pertains to shares outstanding (rounded to the nearest thousand) and Investable Weight Factors (IWF), up to and including the last business day of August are considered in the rebalancing.

*For details regarding float methodology, please refer to S&P Dow Jones Indices' Float Adjustment Methodology.*

2. Securities that meet the *Eligibility Criteria* are added to the index at the annual rebalancing.
3. Index Securities that fail to meet Eligibility Criteria are removed from the index at the annual rebalancing..

**Additions.** Index additions are generally only made as part of the annual rebalancing.

**Deletions.** A security is removed from the index at the first practical date following the Committee's determination that a corporate action has been successful. The target announcement period is two-to-five business days, but exceptions may apply due to unexpected corporate activity.

## Corporate Actions

**Spin-offs.** The spun-off company is added to all the indices of which the parent is a constituent, at a zero price at the market close of the day before the ex-date (with no divisor adjustment). If a spun-off company is determined to be ineligible for continued index inclusion, it is removed after at least one day of regular way trading (with a divisor adjustment).

*For further information on corporate actions, share updates and spin-offs, please refer to S&P Dow Jones Indices' Equity Indices Policies & Practices Methodology.*

## Currency of Calculation and Additional Index Return Series

The index is calculated in Canadian dollars.

In addition to the indices detailed in this methodology, additional return series versions of the indices may be available, including, but not limited to: currency, currency hedged, decrement, fair value, inverse, leveraged, and risk control versions. For a list of available indices, please refer to the [S&P DJI Methodology & Regulatory Status Database](#).

*For information on various index calculations, please refer to S&P Dow Jones Indices' Index Mathematics Methodology.*

*For the inputs necessary to calculate certain types of indices, including decrement, dynamic hedged, fair value, and risk control indices, please refer to the Parameters documents available at [www.spdji.com](http://www.spdji.com).*



**Other Adjustments**

Please refer to the S&P/TSX Composite Index methodology document for treatment of Other Adjustments. The same procedures are applied to the S&P/TSX Renewable Energy and Clean Technology Index.

**Base Date**

The base date for the index is March 24, 2010 and the base level is 100.

# Index Data

## Calculation Return Types

S&P Dow Jones Indices calculates multiple return types which vary based on the treatment of regular cash dividends. The classification of regular cash dividends is determined by S&P Dow Jones Indices.

- Price Return (PR) versions are calculated without adjustments for regular cash dividends.
- Gross Total Return (TR) versions reinvest regular cash dividends at the close on the ex-date without consideration for withholding taxes.
- Net Total Return (NTR) versions, if available, reinvest regular cash dividends at the close on the ex-date after the deduction of applicable withholding taxes.

In the event there are no regular cash dividends on the ex-date, the daily performance of all three indices will be identical.

For a complete list of indices available, please refer to the daily index levels file (".SDL").

*For more information on the classification of regular versus special cash dividends as well as the tax rates used in the calculation of net return, please refer to S&P Dow Jones Indices' Equity Indices Policies & Practices Methodology.*

*For more information on the calculation of return types, please refer to S&P Dow Jones Indices' Index Mathematics Methodology.*

# Index Governance

## Index Committee

The S&P/TSX Canadian indices are maintained by the S&P/TSX Canadian Index Committee. The Index Committee is comprised of four members representing S&P Dow Jones Indices and three members representing the Toronto Stock Exchange (“TSX”). The Index Committee is chaired by a member designated by S&P Dow Jones Indices. Meetings are held monthly, and from time to time, as needed.

The Index Committee is responsible for setting rules and policies for the S&P/TSX Canadian Indices, determining the composition of the Indices and administering the methodology. In fulfilling its responsibilities, the Index Committee has full and complete discretion to amend, apply or exempt the application of the methodology and other index policies as circumstances may require, and add, remove or by-pass any security in determining the composition of any of the indices.

The Index Committee may rely on any information or documentation submitted to or gathered by it that the Index Committee believes to be accurate. Where a public document used by the Index Committee is available in both official languages, the Index Committee shall assume that the contents of both versions are identical. The Index Committee reserves the right to reinterpret publicly available information and to make changes to the index based on a new interpretation of that information at its sole and absolute discretion.

Index corrections and changes to index composition are implemented at such time and in such manner, as the Index Committee deems appropriate. The timing of any index change made in response to a correction shall be at the sole and absolute discretion of the Index Committee.

Stock prices, VWAPs, and prices used to calculate QMV shall be prices determined by trading on the TSX. Canadian and U.S. trading volume is determined using the composite volume. Canadian trading volume includes trading on the TSX, Aequitas (Lit and Neo), Alpha, CSE (Pure Trading), Instinet Canada, Liquidnet Canada, Lynx, Nasdaq CXC, Nasdaq CXD, Nasdaq CX2, Omega and TriAct Match Now. U.S. volume will include trading volume on OTC markets only if the company is dual-listed on a U.S. exchange.

S&P Dow Jones Indices considers information about changes to its Canadian indices and related matters to be potentially market moving and material. Therefore, all Index Committee discussions are confidential.

S&P Dow Jones Indices’ Index Committees reserve the right to make exceptions when applying the methodology if the need arises. In any scenario where the treatment differs from the general rules stated in this document or supplemental documents, clients will receive sufficient notice, whenever possible.

In addition to the daily governance of indices and maintenance of index methodologies, at least once within any 12-month period, the Index Committee reviews the methodology to ensure the indices continue to achieve the stated objectives, and that the data and methodology remain effective. In certain instances, S&P Dow Jones Indices may publish a consultation inviting comments from external parties.

*For information on Quality Assurance and Internal Reviews of Methodology, please refer to S&P Dow Jones Indices’ Equity Indices Policies & Practices Methodology.*

# Index Policy

## Announcements

Whenever possible, announcements of additions or deletions of stocks or other index adjustments are made five trading days before the adjustments are implemented. In those cases when it is not possible to trade a stock five days after an announcement, the announcement period may be shortened. However, the implementation of an index adjustment is never earlier than the market close of the day following the announcement.

In addition, TMX Datalinx offers a fee-based subscription to Index Notices. The Index Notices provide the most detailed and comprehensive coverage of index changes. Complete data for index replication (including share counts, tickers and data on index levels and returns) are also available through TMX Datalinx. In order to subscribe, contact TMX Datalinx by phone at +1.416.947.4778 or by email at [marketdata@tmx.com](mailto:marketdata@tmx.com).

## Holiday Schedule

The S&P/TSX Canadian indices are calculated when the Canadian equity market is open.

*A complete holiday schedule for the year is available on the TMX Web site at [www.tmx.com](http://www.tmx.com).*

## Rebalancing

The Index Committee may change the date of a given rebalancing for reasons including market holidays occurring on or around the scheduled rebalancing date. Any such change will be announced with proper advance notice where possible.

## Unexpected Exchange Closures

For information on Unexpected Exchange Closures, please refer to S&P Dow Jones Indices' Equity Indices Policies & Practices Methodology.

## Recalculation Policy

For information on the recalculation policy, please refer to S&P Dow Jones Indices' Equity Indices Policies & Practices Methodology.

*For information on Calculations and Pricing Disruptions, Expert Judgment and Data Hierarchy, please refer to S&P Dow Jones Indices' Equity Indices Policies & Practices Methodology.*

## Contact Information

For any questions regarding an index, please contact: [index\\_services@spglobal.com](mailto:index_services@spglobal.com).

# Index Dissemination

The TMX Group (TMX) serves as the distributor of both real-time and historical index data. In addition, index levels are available on S&P Dow Jones Indices' Web site at [www.spdji.com](http://www.spdji.com), through major quote vendors (see codes below), through numerous investment oriented Web sites and various print and electronic media.

## Tickers

The table below lists headline indices covered by this document. All versions of the below indices that may exist are also covered by this document. Please refer to the [S&P DJI Methodology & Regulatory Status Database](#) for a complete list of indices covered by this document.

Index	Return Type	Bloomberg	RIC
S&P/TSX Renewable Energy and Clean Technology Index	Price Return Total Return	TXCT TXCTAR	.GSPTXCT .TRGSPTXCT

## Index Data

Daily constituent and index level data is available from the Toronto Stock Exchange on subscription. Please contact Market Data at 416-947-4778 or, by email, at [marketdata@tmx.com](mailto:marketdata@tmx.com).

*For further information, please refer to the TMX Web site at [www.tmx.com](http://www.tmx.com).*

## Web site

*For further information, please refer to S&P Dow Jones Indices' Web site at [www.spdji.com](http://www.spdji.com).*

# Appendix I

## Capping Methodology

1. Criteria for capping an Index Security:

Any constituent whose Relative Weight exceeds 10% on the Annual Valuation Date is capped at 10%.

2. Maintenance for Capped Constituents:

- a. Any capped Index Security whose Relative Weight is below 10% on the Annual Valuation Date has its float-adjusted units or shares increased until either the security is at full float or the Relative Weight reaches 10% of the total index QMV, whichever comes first.
- b. Any capped Index Security whose Relative Weight is above 10% of the index QMV after the close of the market on the Annual Valuation Date has its float-adjusted trust units or shares decreased until the Relative Weight reaches 10% of the total index QMV.
- c. Cap adjustments resulting from 2a or 2b are effective after the close of trading on the Annual Update Effective Date. The Investable Weight Factor is determined by using closing unit or share prices and outstanding trust units or shares after the close of trading on the Annual Valuation Date.

# Appendix II

## Renewable Energy and Clean Technology Classification System

*The information herein has been obtained from sources that Sustainalytics believes to be reliable; however, Sustainalytics does not guarantee its accuracy or completeness.*

### The Context for a Renewable Energy and Clean Technology Index

Global trends associated with population demographics, economic growth of both developed and developing countries, and climate change, will have long-lasting implications for capital markets. In the long-term, these global trends will continue to drive a robust economic demand for the basic necessities of life (including water, energy, food and other natural resources), raw materials and consumer goods. Associated with these global trends is overwhelming evidence that continued rapid economic expansion, based on traditional production patterns, will negatively impact global environmental quality. Consequently, over the long-term, the business environment will shift to favor those companies that will contribute to the transition toward an environmentally sustainable economy.

As such, there is a need for an approach to investing that focuses on companies that can provide goods or services to rapidly expanding global markets, which either reduce or do not materially increase the throughput pressures on already strained ecological systems. For companies, this means focusing on reducing or eliminating the negative ecological impacts of their operations, while at the same time improving the productive and responsible use of natural resources.

Pragmatically, companies can achieve these goals by focusing their resources on innovation, efficiency, and on reducing their ecological impact. When you apply these criteria to the sectors most likely to be impacted by the aforementioned global trends, five key thematic areas emerge as the most likely to provide solutions to global environmental challenges: 1) Renewable Energy – Production and Distribution, 2) Renewable Energy – Manufacturing and Technologies, 3) Energy Efficiency, 4) Waste Reduction and Water Management, 5) Low Impact Materials and Products.

### Index Construction

The S&P/TSX Renewable Energy and Clean Technology Index measures the performance of companies in Canada (listed on the TSX) whose core business is in the development and deployment of green technologies. The following steps identify potential candidates for the Renewable Energy and Clean Technology Index.

**Identify Index Universe.** Renewable Energy and Clean Technology companies are drawn from those companies within the TSX investable universe of public companies whose activities provide value-added solutions to environmental problems. The index construction methodology first evaluates companies for inclusion based on involvement in and strategic commitment to five environmental themes:

1. Renewable Energy – Production and Distribution (e.g. renewable energy developers and independent power producers);
2. Renewable Energy – Manufacturing and Technologies (e.g. equipment and components for the renewable energy);
3. Energy Efficiency (e.g. industrial automation and controls; and energy-efficient equipment);
4. Waste Reduction and Water Management (e.g. providing potable water, source reduction and in-process recycling);

5. Low Impact Materials and Products (e.g. organic foods).

Sustainability company selections are then approved by the S&P/TSX Canadian Index Committee.

**Conduct “Pure Play” Analysis.** To qualify for addition to the S&P/TSX Renewable Energy and Clean Technology Index, a candidate must meet the above-mentioned thematic eligibility criteria and have pure-play involvement in a specific theme, as described in the theme definitions. A company is considered to have pure-play involvement in a theme, if either of the two conditions is met.

- 50% or more of the company’s revenue is derived from products and services from one or more of the above themes.
- 50% or more of the company’s EBITDA is generated by products or services from one or more of the above themes.

For example, a company that earns 100% of its revenue from the production of solar cells would have pure-play involvement in the Renewable Energy theme. The themes are not mutually exclusive, so a company’s pure-play involvement may come from multiple themes. For example, a company that earns 40% of its revenue from solar cells and another 45% from water purification equipment would qualify for inclusion in the S&P/TSX Renewable Energy and Clean Technology Index.

**Apply S&P Dow Jones Indices’ Liquidity and Float-Adjustment Methodology.** S&P Dow Jones Indices’ liquidity screen is applied to the float-adjusted market capitalization of companies identified in the previous two steps.

**Thematic Sectors**

**Renewable Energy – Production and Distribution.** Thematic Research on renewable energy is focused on identifying pure-play companies whose revenues primarily come from the production and delivery of renewable energy and renewable fuels. These include companies whose main lines of business proactively addresses the growing global demand for energy while avoiding or mitigating the environmental hazards and supply limitations of conventional fuels.

**Sample Business Activities**

Development and Generation of Renewable Energy	Renewable energy developers and independent power producers of wind, solar, geothermal, wave/tidal, run-of-river or small-scale hydro, as well as distributed energy, district heating, cogeneration and combined heat and power.  Renewable energy utilities and retailers, as well as suppliers of specialized products and services to the above companies.
Renewable Fuels	Companies that supply the fuels, and infrastructure for the production and distribution of cleaner hybrid fuels, and hydrogen. Companies that supply bio-fuels produced from biomass; agricultural and food waste; and by-products, including biogas from methane and landfill gas.

**Renewable Energy – Manufacturing and Technologies.** Thematic Research on energy efficiency is focused on identifying pure-play companies whose revenue primarily comes from supplying specialized products and services renewable power companies.

**Sample Business Activities**

Generation Equipment	Companies that design, develop, manufacture, distribute or install equipment and components for the renewable energy sector, (including bearings, gearboxes, blades, towers, wafers, cells, etc.); and companies that supply specialist materials into the renewable energy value chain. This also includes technologies used for the processing or production of bio-derived fuels/energy.
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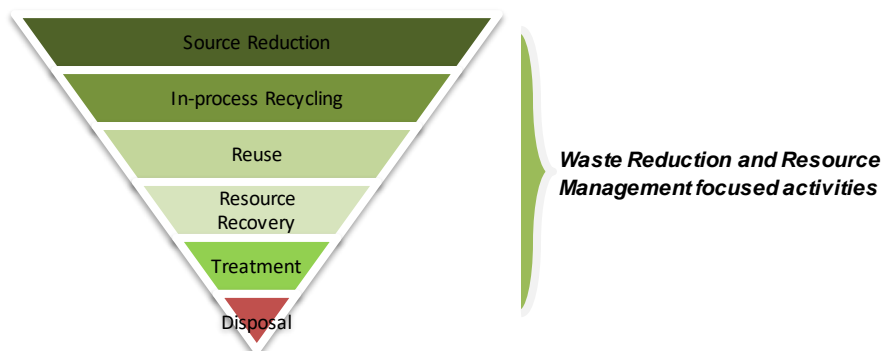
**Energy Efficiency.** Thematic Research on energy efficiency is focused on identifying pure-play companies whose revenue primarily comes from products and services that proactively address the growing global demand for energy, while minimizing impacts to the environment. The theme is primarily focused on companies that promote effective power management, energy conservation, storage and energy efficiency.

**Sample Business Activities**

Building Energy Efficiency	Companies that design, develop, manufacture, distribute or install energy efficient products and services for use in residential, commercial and municipal buildings. Products include integrated buildings control systems, insulation materials, energy efficient lighting, efficient heating, ventilation and air-conditioning equipment.
Transportation Energy Efficiency	Companies that design, develop, manufacture, distribute or apply technology to deliver improved efficiency in the transportation sector (including automotive, heavy duty, rail and aerospace). This includes higher efficiency conventional engines and powertrain technologies, and new vehicle technology (such as natural gas engines, hybrids and electric vehicles, including specialist batteries).
Industrial Energy Efficiency	Technologies and systems that promote efficiency in industrial operations (e.g. industrial turbines, motors, and engines); industrial automation and controls; and energy-efficient equipment and appliances.
Power Management	Companies that design, develop, manufacture, distribute or install equipment and services which enhance the efficiency of operation of the electrical power network. This includes advanced meters, distributed generation, “smart grid” technologies, high efficiency power generation, transmission and distribution technologies, and technologies for advanced energy storage and backup power.

**Waste Reduction and Water Management.** Thematic Research on waste reduction and resource management is focused on identifying pure-play companies whose product and service offerings support pollution prevention, waste reduction, or recycling as a means of alleviating the burden of unsustainable levels of waste generation on the environment. These include companies offering products and services concentrated within the upstream activities of the Waste Management Hierarchy, specifically source reduction, in-process recycling, reuse, resource recovery, and treatment. Disposal services are not included in the index.

**Waste Management Hierarchy**



*Conventional waste management and disposal, involving waste collection and haulage to landfill disposal sites, is not included in this group.*

**Water Management.** Thematic Research on water management is focused on identifying pure-play companies whose revenue is primarily derived from products and services that attempt to resolve water scarcity and quality issues. These companies employ clean technologies to address water scarcity and quality issues. The regulated activity of using conventional technology and infrastructure for water distribution (i.e. water utilities) is not included in this group.

### Sample Business Activities

Pollution Prevention & Control	Source reduction and in-process recycling, including air pollution monitoring and control equipment (e.g. scrubbers, filters, dust collectors and chemical conservation).
Integrated Waste Management	Companies providing integrated waste management solutions to maximize the value extracted from waste streams through reuse, recycling, and energy recovery.
Waste Treatment & Remediation	Waste treatment and environmental remediation, including land treatment and brownfield cleanup, soil washing, chemical oxidation, bioremediation.
Water Infrastructure	Infrastructure and engineering companies engaged in developing new or repairing existing water and sanitation systems. Companies that supply products (including specialty pipes, pumps, valves, actuators, hydrants and meters) and services that enhance water infrastructure systems.
Water Utilities (treatment)	Companies that operate water treatment and supply infrastructure, providing potable water or wastewater and sewage services.
Water Treatment & Purification	Companies that design, develop, manufacture, distribute and/or install technologies or facilities for the separation and purification of water to meet environmental standards. This includes membranes, ultra-violet, desalination, filtration, ion exchange, and biological treatment.
Water Resource Management & Water Efficiency	Technologies and products that reduce, reuse, or recycle water as a means of conservation, including smart metering devices and controls, low-flow equipment, rainwater/greywater harvesting systems.

### Low Impact Technologies, Materials and Products.

#### Sample Business Activities

Organic Foods and Low Impact Agriculture	<p>Organic soil amendments and mechanized maintenance of soil and nutrients. Companies that focus on seed diversification and production through biological modification of waste products into carbon storage and nitrogen fertilizer.</p> <p>Low impact aquaculture transforms seafood protein, aquaculture chain intensive food stuffs, without imperiling the natural aquatic environment. Aquaculture also offers new crop harvesting such as algae (non-food bio-fuel feedstock), and seaweed (protein and carbon sequestration).</p> <p>Non-petroleum sourced bio-solids fertilizer, source separated nitrogen as well as sulfur by-product transformation from refinery gas scrubbing.</p>
Low Impact Forestry	FSC based products, lake timber salvaging, renewable timber products (bamboo).
Low Impact Materials	Companies that generate a majority of their revenues from the sale of products where more than 50% of the inputs are salvaged material, scrap metal, recycled precious metals, recycled post-consumer paper, etc. In addition, companies that generate a majority of their revenue from products which have a reduced impact because inputs usage has decreased by 50% through efficiency or innovative designs.
Commodity Salvage & Recycling	Salvage, use, reuse, and recycling of post-consumer waste products and commodities, including paper, metal, glass, plastic, and organic waste.

## Thematic Research

Sustainalytics has a dedicated Thematic Research Manager who oversees the research process and conducts specialized research on Index constituents and environmental issues. Dedicated Sustainalytics research analysts are responsible for conducting continuous maintenance research for the S&P/TSX Renewable Energy and Clean Technology Index, which includes identifying and proposing potential candidates as well as monitoring current constituents to ensure index eligibility. Sustainalytics' research and selection process for index constituents is based on information collected from a wide variety of sources. These sources are culled continuously to identify index candidates prior to Index Committee review.

Information sources include:

- Sustainalytics' research database, covering more than 4,000 global companies
- Company sources (e.g. Web sites, annual reports, analyst presentations)
- Regulatory filings
- Energy, renewable energy, energy efficiency, clean technology, water, sustainable building and recycling and pollution prevention Web sites
- Industry sources (e.g. trade associations, professional journals)
- Public policy sources
- Governmental databases
- Non-governmental organizations and nonprofit groups
- Media searches of more than 9,000 global sources
- Consultants and other market participants

Sustainalytics evaluates theme-related revenues and investments, the portion of a company's business driven by the relevant theme activity and the environmental impact of the business activity. For some companies such as utilities and energy companies, these numbers are routinely available but for many others, they are not. Sustainalytics seeks this information in its direct communication with companies if it is not available from company publications or third-party sources. Data is standardized for comparative analysis whenever possible.

The research supports four critical elements of index management:

1. **Qualification.** Determining which companies meet the standards to be considered eligible for pure-play involvement.
2. **Scanning.** Monitoring a pool of candidate companies for future addition to the Index.
3. **Selection.** Choosing constituents from the universe of qualified companies that satisfy the environmental and financial criteria of the index.
4. **Monitoring.** Tracking index holdings to ensure that they continue to meet the criteria for inclusion.

# Appendix III

## Methodology Changes

Methodology changes since January 1, 2015 are as follows:

Change	Effective Date (After Close)	Methodology	
		Previous	Updated
Definition of Renewable Fuels	2-Jan-2019	Companies that supply the fuels, and infrastructure for the production and distribution of cleaner hybrid fuels, "liquefied natural gas" (LNG), "compressed natural gas" (CNG); and hydrogen. Companies that supply bio-fuels produced from biomass; agricultural and food waste; and by-products, including biogas from methane and landfill gas.	Companies that supply the fuels, and infrastructure for the production and distribution of cleaner hybrid fuels and hydrogen. Companies that supply bio-fuels produced from biomass; agricultural and food waste; and by-products, including biogas from methane and landfill gas.
Trading Volume for Liquidity Calculation	31-Jul-18	Canadian trading volume includes trading volume at the TSX, Aequitas (Lit and Neo), Alpha, CSE (Pure Trading), Lynx, Nasdaq CXC, Nasdaq CX2 and Omega. U.S. trading volume is determined using the composite volume.	Canadian and U.S. trading volume is determined using the composite volume. Canadian trading volume includes trading on the TSX, Aequitas (Lit and Neo), Alpha, CSE (Pure Trading), Instinet Canada, Liquidnet Canada, Lynx, Nasdaq CXC, Nasdaq CXD, Nasdaq CX2, Omega and TriAct Match Now.
Volume Weighted Average Price (VWAP) Period	30-Oct-17	Market capitalization is calculated based on the VWAP of the security on the Toronto Stock Exchange over the last three trading days of the month-end prior to the Annual Review.	Market capitalization is calculated based on the VWAP of the security on the Toronto Stock Exchange over the last ten trading days of the month-end prior to the Annual Review.
Trading Volume for Liquidity Calculation	04-Aug-17	Only trading volume from the TSX, Aequitas (Lit and Neo), Alpha, CSE (Pure Trading), Lynx, Nasdaq CXC, Nasdaq CX2 and Omega was included.	Trading volume from TSX, Aequitas (Lit and Neo), Alpha, CSE (Pure Trading), Lynx, Nasdaq CXC, Nasdaq CX2 and Omega and U.S. exchanges are included.
Liquidity Criteria	04-Aug-17	Float-adjusted turnover, as measured by comparing the 12-month volume relative to the current float-adjusted shares, must be at least 0.20.	The float-adjusted turnover ratio (total number of shares traded in Canada and U.S. in the previous 12 months divided by float-adjusted shares outstanding at the end of the period) must be 0.20,  For dual-listed stocks, liquidity must be at least 0.10 when using Canadian volume only.
Multiple Share Class Lines	20-Aug-15	Companies that have more than one class of common stock outstanding were represented only once in the index. The stock price was based on one class, and the share count was based on the total shares outstanding of all classes.	There will no longer be consolidated lines in the S&P Float Market Cap (FMC) indices. Instead, all multiple share class companies that have listed share class lines are adjusted for shares and float such that each share class line only represents that line's shares and float. All multiple share class companies that have an unlisted class line are also adjusted.
Trading Volume Marketplaces	20-Aug-15	TSX and other Canadian trading venues which make the data available in a timely fashion.	TSX, Aequitas (Lit and Neo), Alpha, Chi-X, CSE (Pure Trading), CX2, Lynx, TMX Select (Excluded after September 2016 review) and Omega.

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