

# MSCI ESG Fund Ratings Report

REPORT DATE:  
JULY 18, 2022

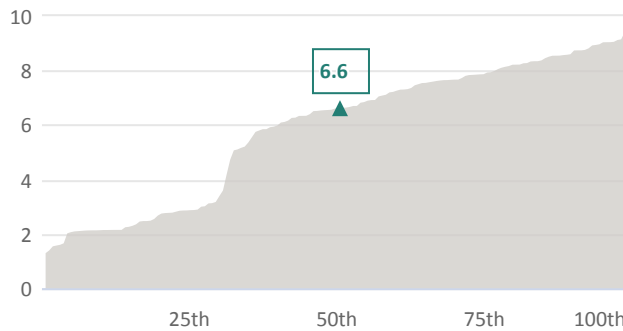
## WisdomTree Recycling Dcrbnstn UCITS ETF USD Acc

PEER  
percentile  
51<sup>st</sup>/100

GLOBAL  
percentile  
41<sup>st</sup>/100



### ESG QUALITY SCORE PERCENTILE VS. PEER GROUP EQUITY THEME - ALTERNATIVE ENERGY (N=164)



### ENVIRONMENTAL SCORE

4.5 FUND 6.1 PEER AVG

### SOCIAL SCORE

5.4 FUND 4.5 PEER AVG

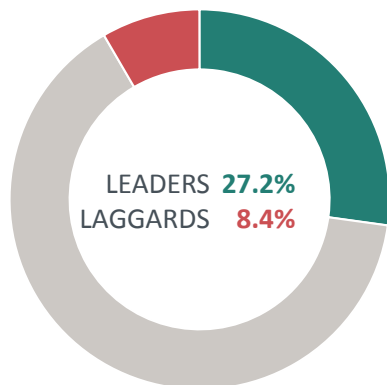
### GOVERNANCE SCORE

6.0 FUND 5.2 PEER AVG

The Fund ESG Rating measures the resiliency of portfolios to long term risks and opportunities arising from environmental, social, and governance factors. The *WisdomTree Recycling Dcrbnstn UCITS ETF USD Acc* receives an MSCI ESG Rating of **A**, based on an ESG Quality Score of 6.6 out of 10. The fund has 30.8% exposure to holdings with a positive ESG rating trend, 4.9% exposure to holdings with negative ESG rating trend and 8.4% exposure to ESG laggards. It ranks in the 51st percentile within the *Equity Theme - Alternative Energy* peer group and in the 41st percentile within the global universe of all funds in coverage.

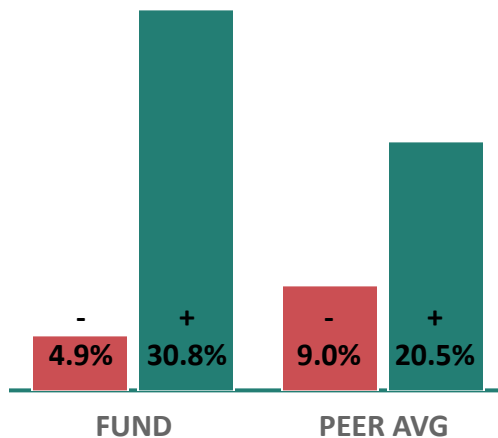
**ESG Policy:** Yes  
**ISIN:** IE000LG4J7E7  
**Asset Class:** Equity  
**Domicile:** Ireland  
**Peer Group:** Equity Theme - Alternative Energy  
**Holdings Count:** 55  
**ESG Coverage:** 82.1%  
**Holdings as of:** June 30, 2022

### EXPOSURE TO ESG LEADERS & LAGGARDS



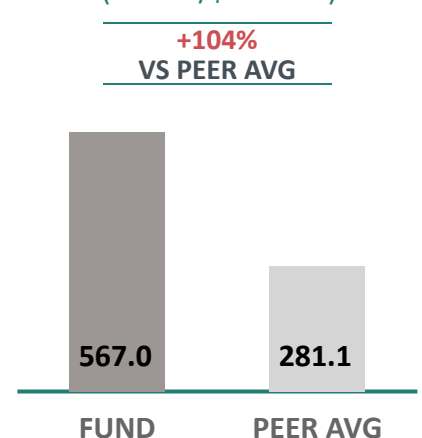
ESG Leaders are companies with an ESG rating of AAA or AA (best in class). ESG Laggards are companies with an ESG Rating of B or CCC (worst in class).

### EXPOSURE TO POSITIVE & NEGATIVE TREND



Companies with negative (-) and positive (+) ESG rating trend compared to their previous ESG rating.

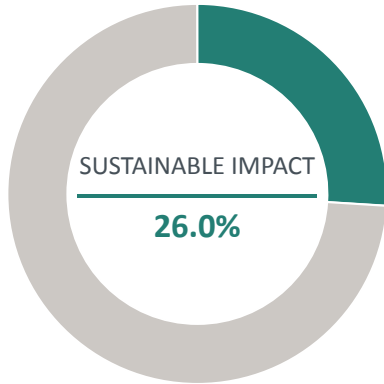
### CARBON RISK (t CO2e/\$M Sales)



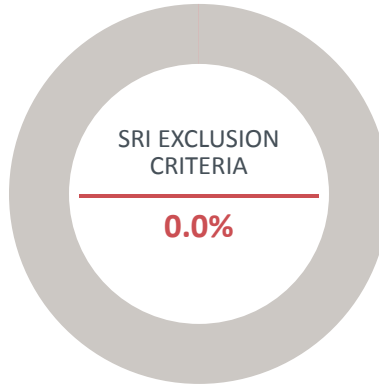
Measures a fund's exposure to carbon intensive companies. The figure is the sum of security weight multiplied by the security Carbon Intensity.

FUND EXPOSURE SUMMARY

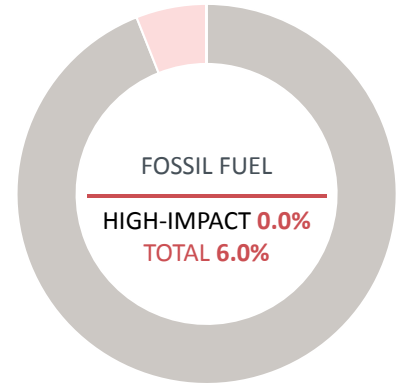
EXPOSURE TO SUSTAINABLE IMPACT THEMES



EXPOSURE TO SRI EXCLUSIONS



EXPOSURE TO FOSSIL FUEL

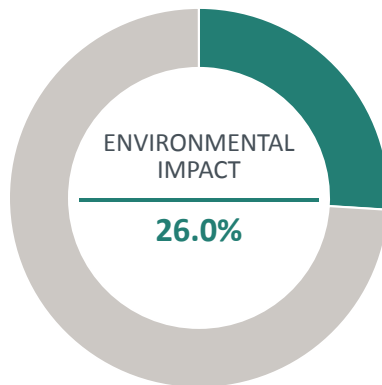
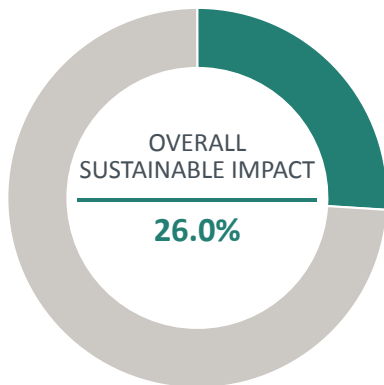


TOP 10 HOLDINGS

Rank	Holding Name	Fund Weight*	Sustainable Impact Revenue (Theme)	Fossil Fuel	SRI Exclusions	Carbon Intensity	ESG Score
1	Neste Oyj ORD	8.7%	18.6% (Energy Efficiency)			136.3	9.8
2	Green Plains Inc ORD	6.2%	38.0% (Energy Efficiency)			507.9	5.1
3	Denbury Inc ORD	6.0%		Yes		2230.5	3.6
4	Darling Ingredients Inc ORD	6.0%	100.0% (Energy Efficiency,Pollution Prevention)			487.6	8.4
5	Waste Management Inc ORD	5.7%	14.2% (Energy Efficiency,Sustainable Water,Pollution Prevention)			1072.4	6.1
6	Vertex Energy Inc ORD	4.8%				n/a	n/a
7	Clean Harbors Inc ORD	4.7%	16.5% (Sustainable Water,Pollution Prevention)			499.2	2.9
8	Casella Waste Systems Inc ORD	4.6%	16.5% (Energy Efficiency,Pollution Prevention)			734.6	3.1
9	eREX Co Ltd ORD	3.7%	82.7% (Energy Efficiency)			16.1	4.9
10	Ameresco Inc ORD	3.3%	48.5% (Alternative Energy,Energy Efficiency,Sustainable Water)			27.9	4.2

\*Fund holding weights are normalized to reflect exclusion of short positions.

**SUSTAINABLE IMPACT EXPOSURE**



**How to read this page**

Revenue exposure to Sustainable Impact Solutions reflects the extent to which company revenue is exposed to products and services that help solve the world's major social and environmental challenges. It is calculated as a weighted average, using portfolio weights and each issuer's percent of revenue generated from Sustainable Impact Solutions. To be eligible to contribute, an issuer must maintain minimum ESG standards.

The classifications below help interpret the different degrees of exposure.

Percentage	Exposure
>20%	Very High
>10% and <=20%	High
>5% and <=10%	Moderate
>1% and <=5%	Low
<=1%	Negligible

See the Terms and Definitions section at the back of the report for more detail.

**CLIMATE CHANGE**

Alternative Energy (%)	15.1%
Energy Efficiency (%)	0.6%
Green Building (%)	0.0%

**NATURAL CAPITAL**

Sustainable Water (%)	0.8%
Pollution Prevention (%)	8.7%
Sustainable Agriculture (%)	0.6%

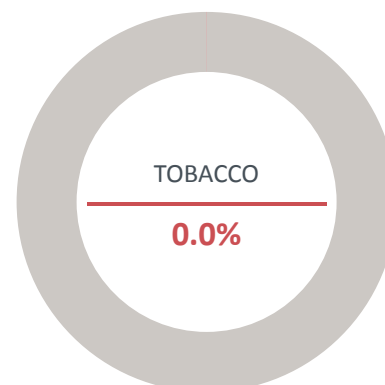
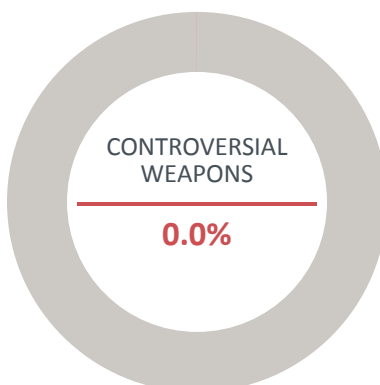
**BASIC NEEDS**

Major Diseases Treatment (%)	0.0%
Sanitation (%)	0.0%
Nutrition (%)	0.0%
Affordable Real Estate (%)	0.0%

**EMPOWERMENT**

Education (%)	0.0%
SME Finance (%)	0.0%
Connectivity (%)	0.0%

VALUES ALIGNMENT EXPOSURE



How to read this page

Values Alignment metrics provide transparency to help identify funds that align with ethical, religious or political views. The metrics measure the percentage of portfolio's market value exposed to companies flagged for controversial business involvement, controversies, global norms violations, and religious compliance.

Business Involvement

The percentage of portfolio's market value exposed to companies flagged for involvement in a category according to our screening definitions i.e. Highly Restrictive, Any Tie and others. For our Highly Restrictive screen definition, in most cases, this is defined as companies that derived 5% or more revenue from an involvement category. Refer to the Terms and Definitions at the back of the report.

Religious Values

The percentage of portfolio's market value exposed to companies that have been flagged for non-compliance for Catholic Values or Islamic Values.

International Norms

The percentage of portfolio's market value exposed to companies in violation of global norms and conventions.

See the Terms and Definitions section at the back of the report for more detail.

BUSINESS INVOLVEMENT

Adult Entertainment — Highly Restrictive (%)	0.0%
Alcohol — Highly Restrictive (%)	3.7%
Civilian Firearms — Highly Restrictive (%)	0.0%
Civilian Firearms Retailer (%)	0.0%
Civilian Firearms Producer (%)	0.0%
Gambling — Highly Restrictive (%)	0.0%
Nuclear Power — Highly Restrictive (%)	0.0%
Tobacco — Highly Restrictive (%)	0.0%
Weapons - Any Tie (%)	0.0%
Controversial Weapons (%)	0.0%
Direct Predatory Lending (%)	0.0%
Genetic Engineering (%)	0.0%

RELIGIOUS VALUES

Catholic Values Non-Compliant (%)	0.0%
Islamic Non-Compliant (%)	15.9%

INTERNATIONAL NORMS

Global Compact Compliance Violation (%)	0.0%
Global Compact Compliance Violation or Watch List (%)	0.0%
Human Rights Norms Violation (%)	0.0%
Human Rights Norms Violation or Watch List (%)	0.0%
Labor Norms (%)	0.0%
Labor Norms Violation or Watch List (%)	0.0%

## RISK EXPOSURE

### ESG QUALITY SCORE CARD

	FUND	PEER AVG	VS PEER AVG
<b>ESG QUALITY SCORE (0-10)</b>	<b>6.6</b>	<b>5.8</b>	<b>0.8</b>
ENVIRONMENTAL SCORE (0-10)	4.5	6.1	-1.6
SOCIAL SCORE (0-10)	5.4	4.5	0.9
GOVERNANCE SCORE (0-10)	6.0	5.2	0.8
ESG LEADERS (%)	27.2%	25.5%	1.7%
ESG LAGGARDS (%)	8.4%	12.8%	-4.4%
ESG - POSITIVE TREND (%)	30.8%	20.5%	10.3%
ESG - NEGATIVE TREND (%)	4.9%	9.0%	-4.1%

### How to read this page

#### Environmental Risk

**Carbon Risk** is the weighted average carbon intensity (tCO<sub>2</sub>e / \$M sales) and measures a fund's exposure to carbon intensive companies.

**High impact fossil fuel reserves** measure portfolio's market value exposed to companies that own high impact fossil fuel reserves including Thermal Coal, Oil Sands, and Shale Oil and Shale Gas. Water risk measure the portfolio's market value exposed to companies with operations in lines of business that are typically highly water intensive.

#### Reputational Risk

The percentage of portfolio's market value exposed to companies facing one or more Very Severe controversies.

#### Governance Metrics

Governance metrics measure the percentage of a portfolio's market value exposed to companies with different corporate governance practices related to Board, Pay, Ownership & Control and Accounting.

See the Terms and Definitions section at the back of the report for more detail.

### ENVIRONMENTAL RISK

#### FOSSIL FUEL

Carbon Risk (t CO <sub>2</sub> e/\$M sales)	567.0
Own Fossil Fuel Reserves (%)	6.0%
High Impact Fossil Fuel Reserves (%)	0.0%
Exposure to High Water Risk (%)	27.8%

#### REPUTATIONAL RISK

Overall Reputational Risk (%)	0.0%
Environmental (%)	0.0%
Customer (%)	0.0%
Human Rights (%)	0.0%
Labor (%)	0.0%
Governance (%)	0.0%

### GOVERNANCE RISK

#### BOARD

Board Flag (%)	1.6%
Lack of Independent Board (%)	n/a
Board independence (0-25%)	0.0%
Board independence (25-50%)	11.8%
Board independence (50-75%)	19.3%
Board independence (75-100%)	54.5%
No Female Directors (%)	6.3%
3+ Female Directors (%)	38.8%
Female Rep. 30% of Directors (%)	37.3%
Entrenched Board (%)	25.7%
Overboarding (%)	35.6%
Negative Director Votes (%)	35.3%

**GOVERNANCE RISK (CONTINUED)**

**ACCOUNTING**

Accounting Flag (%)	1.1%
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**PAY**

Pay Flag (%)	6.7%
Votes Against Pay Practices (%)	6.5%
No Pay Performance Link (%)	0.0%
Lack of Internal Pay Equity (%)	27.2%
Executive Pay Non-Disclosure (%)	14.2%

**OWNERSHIP & CONTROL**

Ownership & Control Flag (%)	31.3%
One Share One Vote (%)	16.0%
No Annual Director Elections (%)	43.3%
Does not use Majority Voting (%)	43.3%
Controlling Shareholder (%)	29.5%
Controlling Shareholder Concerns (%)	5.3%
Cross Shareholdings (%)	1.3%
Poison Pill (%)	0.0%

## TERMS AND DEFINITIONS

### Methodology

We leverage our ESG ratings and research coverage of over 7,500 companies (13,000 total issuers including subsidiaries) and more than 650,000 equity and fixed income securities to create ESG Ratings, scores and metrics for approximately 32,000 multi-asset class Mutual Funds and ETFs globally. MSCI ESG Fund Ratings aims to provide fund-level transparency to help clients better understand and measure the ESG characteristics of the total portfolio, and rank or screen funds based on a diverse set of ESG exposure categories.

To learn more about MSCI ESG Research products, please visit: [www.msci.com/esg-ratings](http://www.msci.com/esg-ratings)

#### MSCI ESG FUND RATINGS INCLUSION CRITERIA

Certain MSCI ESG Fund Ratings holdings data is sourced from Lipper (see [Notice and Disclaimer](#)). To be included in Fund Ratings, a fund must pass the following three criteria:

1. **65% of the fund’s gross weight must come from covered securities.**
  - a. The coverage universe for issuers consists of MSCI ESG Ratings (over 7,500 companies and more than 650,000 equity and fixed income securities globally).
  - b. Cash positions and other asset types not relevant for ESG analysis are removed prior to calculating a fund’s gross weight.
  - c. The absolute values of short positions are included in a fund’s gross weight calculation, but are treated as uncovered for ESG data.
  - d. Security asset type must have recourse to the rated issuer.
2. **Fund holdings date must be less than one year old.**
3. **Fund must have at least ten securities.**

#### FACTOR CALCULATIONS

While Fund Ratings includes over 200 metrics, the calculation for each one is done according to one of three basic methodologies. The ESG Fund Ratings Methodology document notes which approach is used for each metric.

The first step in all cases (except for “Fund ESG Coverage (%)”, which is described separately in the Fund Coverage section) is to exclude any short positions. Weights of the remaining positions are normalized to 100%. Following that, the metrics will utilize one of the three methodologies described here:

**Method 1: Weighted Average:** This is the sumproduct of security weights and security values for a given metric. Securities without values for the metric being measured are excluded, and the weights of the remaining securities are normalized to 100%.

	Weight	ESG Score	Weight x Score
Security A	50%	4	2.0
Security B	30%	8	2.4
Security C	20%	7	1.4
<b>TOTAL</b>	<b>100%</b>		<b>5.8</b>

**Method 2: Metric Weighted Average:** This calculation is a slight variation on the Weighted Average calculation described above in Method 1. The distinction is that the Metric Weighted Average includes two different sets of weights; the security weights and the metric weights from the ESG Ratings model. As an example, an Environment Score may represent only 10% of the ESG exposure for one company, but 50% of the ESG exposure for another company. These metricweights are included in the calculation so that the Fund score will accurately represent the exposure from each security.

	Fund Weight	Environment Score	Environment Weight	Fund Weight x Environment Weight	Normalized Weight	Normalized Weight x Environment Score
Security A	50%	2	35%	18%	76%	1.5
Security B	30%	8	5%	2%	7%	0.5
Security C	20%	7	20%	4%	17%	1.2
<b>TOTAL</b>	<b>100%</b>					<b>3.3</b>

**Method 3: Percentage Sum:** Metrics calculated using Percentage Sum show the percent of the fund that meets the criteria for the metric being measured. The percentage represents a minimum

value, as there may be uncovered securities that are also True. For instance, a “Predatory Lending (%)” of 10% means that 10% of the weight of the fund comes from issuers with identified ties to predatory lending. The actual percentage may be higher if the fund holds companies involved in predatory lending that are outside of the product’s coverage universe.

The security weights used in Percentage Sum calculations are set by excluding short positions, and normalizing the remaining positions to 100%. Note that cash positions are kept in the fund to avoid overstating exposure to the metric. Cash is treated as a portion of the fund that does not meet the criteria to the metric being measured.

	Fund Weight	Predatory Lending	Predatory Lending %
Security A	40%	No	-
Security B	30%	No	-
Security C	20%	Yes	20%
Security D	10%	Uncovered	-
			<b>20%</b>

**FUND ESG QUALITY SCORE**

The “Fund ESG Quality Score” assesses the resilience of a fund’s aggregate holdings to long term ESG risks. Highly rated funds consist of issuers with leading or improving management of key ESG risks, based on a granular breakdown of a company’s business: its core product or business segments, the locations of its assets or revenues, and other relevant measures such as outsourced production. The “Fund ESG Quality Score” is provided on a 0-10 score, with 0 and 10 being the respective lowest and highest possible fund scores.

The “Fund ESG Quality Score” is assessed using the underlying holding’s “Overall ESG Scores”, “Overall ESG Ratings”, and “Overall ESG Rating Trends”. It is calculated in a series of 3 steps.

Step 1: Calculate the “Fund Weighted Average ESG Score” of the underlying holding’s “Overall ESG Scores”. Methodology for the issuer level scores are available in a separate “MSCI ESG Ratings Methodology” document. The table below demonstrates how the “Fund Weighted Average ESG Score” is calculated. Note that in this example, Security E does not have an ESG Score. Security E is therefore “dropped” from analysis, and the weights of the remaining securities are normalized to 100%. The normalized weights and ESG scores are then used to calculate the “Fund Weighted Average ESG Score” of 6.6.

Step 1 Example

	Weight	ESG Score	Normalized Weight	Normalized Weight x Score
Security A	20%	4.0	25%	1.0
Security B	40%	8.0	50%	4.0
Security C	8%	7.0	10%	0.7
Security D	12%	6.0	15%	0.9
Security E	20%	N/A	0%	N/A
<b>TOTAL</b>	<b>100%</b>		<b>100%</b>	<b>6.6</b>

Step 2: Calculate adjustment factor based on fund exposure to “Fund ESG Laggards (%)”, “Fund ESG Trend Negative (%)”, and “Fund ESG Trend Positive (%)”.

Adjustment Factor = “Fund ESG Trend Positive (%)” – “Fund ESG Laggards (%)” – “Fund ESG Trend Negative (%)”

Step 2 Example

Fund Factors	Fund Values
Fund ESG Trend Positive	30%
<b>Minus</b> Fund ESG Laggards	10%
<b>Minus</b> Fund ESG Trend Negative	5%
<b>= Adjustment Factor</b>	<b>15%</b>

Step 3: Multiply the “Fund Weighted Average ESG Score” by (1 + adjustment factor).

Step 3 Example

Fund Factors	Fund Values
Fund Weighted Average ESG Score	6.60
<b>X</b> 1 + Adjustment Factor	15%
<b>=</b> ESG Quality Score	<b>7.59</b>

**ESG FUND RATING**

The top level fund signal, the “Fund ESG Rating”, assesses the resilience of a fund’s aggregate holdings to long term ESG risks. Highly rated funds consist of issuers with leading or improving management of key ESG risks.

ESG RATINGS

WHAT IT MEANS

AAA, AA	<b>LEADER</b>	The companies that the fund invests in show strong and/or improving management of financially relevant environmental, social and governance issues. These companies may be more resilient to disruptions arising from ESG events.
A, BBB, BB	<b>AVERAGE</b>	The fund invests in companies that show average management of ESG issues, or in a mix of companies with both above-average and below-average ESG risk management.
B, CCC	<b>LAGGARD</b>	The fund is exposed to companies that do not demonstrate adequate management of the ESG risks that they face, or show worsening management of these issues. These companies may be more vulnerable to disruptions arising from ESG events.

The Fund ESG Rating is calculated as a direct mapping of “Fund ESG Quality Score” to letter rating categories.

Fund ESG Quality Score	Fund ESG Rating
8.6* - 10	AAA
7.1 - 8.6	AA
5.7 - 7.1	A
4.3 - 5.7	BBB
2.9 - 4.3	BB
1.4 - 2.9	B
0.0 - 1.4	CCC

\*Appearance of overlap in the score ranges is due to rounding. The 0 to 10 scale is divided into 7 equal parts, each corresponding to a letter rating.

PEER GROUP PERCENTILES

Each fund's overall ESG Quality Score is also shown as a percentile in its peer group. The Fund ESG Quality Score – Peer Percentile represents the percentage of funds in a fund's peer group with an ESG Score equal to, or lower than, the fund's ESG Score.



The peer groups are defined using the Lipper Global Classification Scheme. The following criteria must be met for a fund to receive a Fund ESG Quality Score – Peer Percentile:

- The fund must be categorized by the Lipper Global Classification scheme**
- The peer group must contain at least 30 funds.**
- The standard deviation of the Fund ESG Quality Score within the peer group must be greater than, or equal to, 0.1.**

The Lipper Global Classification Scheme is detailed in ESG Fund Ratings Methodology document.

GLOBAL PERCENTILES

Every fund included in Fund Ratings receives a Fund ESG Quality Score – Global Percentile. The Global Percentile notes the percentage of funds, covered by Fund Ratings, with a score lower than, or equal to, a fund's ESG Quality Score. Considered in conjunction, the Global and Peer Percentiles position a fund from both an absolute (product-wide) and relative (peer category) perspective.

TREATMENT OF CASH

Cash holdings are removed prior to calculating Fund ESG Coverage (%). Cash is removed because it is outside the scope of ESG relevancy. Including it in the coverage figure would lead to the undesired result of funds failing to meet the coverage threshold due to cash allocations.

The weight of cash is included in all metrics that measure exposure to specific criteria (e.g. Tobacco, Fossil Fuel Reserves, ESG Laggards, etc.). Excluding cash from exposure metrics would generate overstated results.

**TREATMENT OF SHORT POSITIONS**

When calculating "Fund ESG Coverage (%)", short positions are always treated as uncovered, even if held as a security of an issuer within ESG coverage. By including the absolute value of short positions in the uncovered portion of a fund, the coverage % will not overstate ESG coverage.

Although short positions are included in the gross value when calculating coverage, they are removed prior to calculating the rest of the MSCI ESG Fund Ratings results. This is because the interpretation of short positions, from an ESG perspective, varies widely based on use case and the specific metric being considered.

**Sustainable Impact Metrics**

Sustainable Impact measures revenue exposure to Sustainable Impact Solutions which reflects the extent to which company revenue is exposed to products and services that help solve the world's major social and environmental challenges. It is calculated as a weighted average, using portfolio weights and each issuer's percent of revenue generated from Sustainable Impact Solutions. Additionally, Sustainable Impact Solutions revenue from companies with negative externalities is excluded.

Negative externalities refer to very severe and severe ESG controversies, ESG Ratings of CCC and B, direct involvement in predatory lending, involvement in controversial weapons, more than 5% revenue from conventional weapons or firearms, and more than 10% revenue from alcohol or tobacco production.

**OVERALL**

**Revenue Exposure to Sustainable Impact Companies (%):** A portfolio's exposure to Sustainable Impact Solutions is the portfolio weighted average of each company's percent of revenue generated by Environmental Impact and Social Impact Solutions goods and services. Additionally, Sustainable Impact Solutions revenue from companies with negative externalities is excluded.

**ENVIRONMENTAL**

**Environmental Impact Companies (%):** A portfolio's exposure to Environmental Impact is the portfolio weighted average of each company's percent of revenue generated by Environmental Impact goods and services. Additionally, Environmental Impact revenue from companies with negative externalities is excluded.

The following environmental metrics represent a portfolio's exposure to each theme which is calculated as the portfolio weighted average of each company's percent of revenue generated from goods and services. Additionally, revenue from companies with negative externalities is excluded.

**CLIMATE CHANGE**

- Energy Efficiency (%)
- Alternative Energy (%)
- Green Building (%)

**NATURAL CAPITAL**

- Pollution Prevention
- Sustainable Waters

**SOCIAL**

**Social Impact Companies (%):** A portfolio's exposure to Social Impact is the portfolio weighted average of each company's percent of revenue generated by Social Impact goods and services. Additionally, Social Impact revenue from companies with negative externalities is excluded.

The following social metrics represent a portfolio's exposure to each theme which is calculated as the portfolio weighted average of each company's percent of revenue generated from goods and services. Additionally, revenue from companies with negative externalities is excluded.

**BASIC NEEDS**

- Affordable Real Estate (%)
- Major Disease Treatment (%)
- Nutrition (%)
- Sanitation Products (%)

**EMPOWERMENT**

- Education (%)
- Social Finance (%)

**Values Alignment Metrics**

Values Alignment metrics provide transparency to help identify funds that align with ethical, religious or political views. The metrics measure the percentage of portfolio's market value exposed to companies flagged for controversial business involvement, controversies, global norms violations, and religious compliance.

**BUSINESS INVOLVEMENT**

**SRI Exclusion Criteria (%):** The percentage of portfolio's market value exposed to companies flagged for one or more standard SRI exclusion factors (alcohol, civilian firearms, gambling, weapons, cluster bombs, landmines, nuclear power, GMOs, and tobacco).

**Adult Entertainment - Highly Restrictive (%):** The percentage of portfolio's market value exposed to companies flagged for involvement in adult entertainment according to our Highly Restrictive screen definition This includes all adult entertainment producers as well as adult entertainment distributors and retailers if the total revenue is => 5%. The full weight of each flagged company is included in the calculation.

**Alcohol - Highly Restrictive (%):** The percentage of portfolio's market value exposed to companies flagged for involvement in alcohol according to our Highly Restrictive screen definition. This includes all alcohol producers as well as alcohol distributors, suppliers, and retailers if the combined revenue is => 5%. The full weight of each flagged company is included in the calculation.

**Gambling Involvement - Highly Restrictive (%):** The percentage of portfolio's market value exposed to companies flagged for involvement in gambling according to our Highly Restrictive screen definition. This includes all gambling facility operators as well as support products & services if the revenue is => 5%. The full weight of each flagged company is included in the calculation.

**Nuclear Power Involvement - Highly Restrictive (%):** The percentage of portfolio's market value exposed to companies flagged for involvement in nuclear power according to our Highly Restrictive screen definition. This includes all utilities with nuclear power generation operations and suppliers to the nuclear power industry if the revenue is => 5%. The full weight of each flagged company is included in the calculation.

**Tobacco Involvement - Highly Restrictive (%):** The percentage of portfolio's market value exposed to companies flagged for involvement in tobacco according to our Highly Restrictive screen definition. This includes all tobacco producers as well as tobacco distributors, suppliers, and retailers if the combined revenue is => 5%. The full weight of each flagged company is included in the calculation.

**Weapons Involvement (%):** The percentage of portfolio's market value exposed to companies with ties to the manufacture of conventional (including depleted uranium), biological/chemical, or nuclear weapons systems and components. This includes companies that provide support systems and services, as well as those with indirect ties to weapons production through ownership. Note: Involvement in the production of landmines and/or cluster bombs is not captured here, but tracked separately.

**Controversial Weapons Involvement (%):** The percentage of portfolio's market value exposed to companies with ties to landmines, cluster munitions, biological, chemical, or depleted uranium.

**Civilian Firearms - Highly Restrictive (%):** The percentage of portfolio's market value exposed to companies flagged for involvement in civilian firearms according to our Highly Restrictive screen definition. This includes all civilian firearms producers as well as civilian firearms retailers if the revenue is => 5%. The full weight of each flagged company is included in the calculation.

**Civilian Firearms Retailer (%):** The percentage of portfolio's market value exposed to companies that derive any amount of annual revenues from the distribution (wholesale or retail) of firearms or small arms ammunition intended for civilian use.

**Civilian Firearms Producer (%):** The percentage of portfolio's market value exposed to companies that manufacture firearms and small arms ammunitions for civilian markets. The research does not cover companies that cater to the military, government, and law enforcement markets.

**Direct Predatory Lending Involvement (%):** The percentage of portfolio's market value exposed to companies that provide products and services associated with certain controversial lending practices.

**Genetic Engineering Involvement (%):** The percentage of portfolio's market value exposed to companies with ties to production of genetically modified organisms.

**RELIGIOUS VALUES**

**Catholic Values Fail (%):** The percentage of portfolio's market value exposed to companies that have been flagged for one or more of the underlying USCCB exclusionary factors: abortion, contraceptives, stem cells, discrimination, adult entertainment, defense and weapons, landmines, or predatory lending.

**Islamic Non-Compliant (%):** The percentage of portfolio's market value exposed to companies that are non-compliant according to Sharia investment principles. Non-compliant companies are those with ownership of a prohibited business activity or Hotel tie or have total revenues greater than or equal to 5% from prohibited business activities or with financial ratios greater than or equal to 33.33%. Prohibited Business Activities include Adult Entertainment, Alcohol, Cinemas, Conventional Financial Services, Gambling, Music, Pork, Tobacco, and Weapons.

**INTERNATIONAL NORMS**

**Global Compact Compliance Violation (%):** The percentage of portfolio's market value exposed to companies in violation of the UN Global Compact principles.

**Global Compact Compliance Violation or Watch List (%):** The percentage of portfolio's market value exposed to companies in violation of the UN Global Compact principles, or on MSCI's "Watch List" for potential violations.

**Human Rights Norms Violation (%):** The percentage of portfolio's market value exposed to companies in violation of international norms around human rights.

**Human Rights Norms Violation or Watch List (%):** The percentage of portfolio's market value exposed to companies in violation of international norms around human rights, or on MSCI's "Watch List" for potential violations.

**Labor Norms Violation (%):** The percentage of portfolio's market value exposed to companies in violation of the International Labour Organization's broader set of labor standards.

**Labor Norms Violation or Watch List (%):** The percentage of portfolio's market value exposed to companies in violation of the International Labour Organization's broader set of labor standards, or on MSCI's "Watch List" for potential violations.

## Risk Exposure Metrics

Risk Exposure metrics provide transparency on select environmental and governance risks. They provide insight into potentially unknown exposures and unintended bets the may pose risk to investors.

### ENVIRONMENTAL RISK

**Carbon Risk:** The Weighted Average Carbon Intensity measures a fund's exposure to carbon intensive companies. The figure is the sum of security weight (normalized for corporate positions only) multiplied by the security Carbon Intensity.

**Own Fossil Fuel Reserves (%):** The percentage of portfolio's market value exposed to companies that own fossil fuel reserves.

**High Impact Fossil Fuel Reserves (%):** The percentage of portfolio's market value exposed to companies that own high impact fossil fuel reserves. High impact fossil fuel reserves include Thermal Coal, Oil Sands, and Shale Oil and Shale Gas.

**Exposure to High Water Risk (%):** The percentage of portfolio's market value exposed to companies with a Water Stress Exposure Score > 6.6. Scores combine the geographic and business segment components and range from 0 to 10.

### REPUTATIONAL RISK (VERY SEVERE CONTROVERSIES)

**Overall Reputational Risk (%):** The percentage of portfolio's market value exposed to companies facing one or more Very Severe controversies related to the environment, customers, human rights, labor rights and governance.

**Environmental Controversies (%):** The percentage of portfolio's market value exposed to companies facing one or more Very Severe Environmental controversies related to Energy & Climate Change, Land Use & Biodiversity, Toxic Spills & Releases, Water Stress, or Operational Waste.

**Customer Controversies (%):** The percentage of portfolio's market value exposed to companies facing one or more Very Severe customer-related controversies related to Anticompetitive Practices, Customer Relations, Market & Advertising, Privacy & Data Security, or Product Safety.

**Human Rights Controversies (%):** The percentage of portfolio's market value exposed to companies facing one or more Very Severe Human Rights and Community controversies related to Impact on Local Communities, Civil Liberties, or Human Rights.

**Labor Controversies (%):** The percentage of portfolio's market value exposed to companies facing one or more Very Severe Labor controversies related to Child Labor, Collective Bargaining, Discrimination, Health & Safety, Labor Management, or Supply Chain Labor Standards.

**Governance Controversies (%):** The percentage of portfolio's market value exposed to companies facing one or more Severe or Very Severe Governance controversies related bribery, fraud, controversial investments, and governance structure.

### GOVERNANCE RISK

**Board Flag (%):** The percentage of portfolio's market value exposed to companies ranking "below average" relative to global peers on MSCI's assessment of board structure and effectiveness.

**Lack of Independent Board Majority (%):** The percentage of portfolio's market value exposed to companies lacking an independent board majority.

The following Board metrics represent the percentage of portfolio's market value exposed to companies with their respective board independence:

- Board Independence (0-25%)
- Board Independence (25-50%)
- Board Independence (50-75%)
- Board Independence (75-100%)

**No Female Directors (%):** The percentage of portfolio's market value exposed to companies with no female directors.

**Three or More Female Directors (%):** The percentage of portfolio's market value exposed to companies with three or more female directors.

**Female Represent 30% of Directors (%):** The percentage of portfolio's market value exposed to companies where women comprise at least 30% of the board of directors.

**Entrenched Board (%):** The percentage of portfolio's market value exposed to companies with long-tenured or aging directors that suggest a problem with board entrenchment.

**Overboarding (%):** The percentage of portfolio's market value exposed to companies with executive board members that serve on the boards of two or more additional public companies.

**Negative Director Votes (%):** The percentage of portfolio's market value exposed to companies facing significant negative director votes.

**Ownership and Control Flag (%):** The percentage of portfolio's market value exposed to companies ranking "below average" relative to global peers on MSCI's assessment of ownership structure and risks.

**One Share One Vote (%):** The percentage of portfolio's market value exposed to companies flagged for limitations on voting rights including: multiple equity classes with different voting rights or voting rights limited by shares held, residency, duration, or minimum holding period.

**No Annual Director Elections (%):** The percentage of portfolio's market value exposed to companies where not all directors stand for annual re-election.

**Does not use Majority Voting (%):** The percentage of portfolio's market value exposed to companies that have not adopted majority voting in the election of directors.

**Controlling Shareholder (%):** The percentage of portfolio's market value exposed to companies with a controlling shareholder.

**Controlling Shareholder Concerns (%):** The percentage of portfolio's market value exposed to companies with ownership structure indicating special concerns for minority shareholders.

**Cross Shareholdings (%):** The percentage of portfolio's market value exposed to companies involved in a series of cross-shareholdings with other companies.

**Poison Pill (%):** The percentage of portfolio's market value exposed to companies that have adopted shareholder rights plans.

**Pay Flag (%):** The percentage of portfolio's market value exposed to companies ranking "below average" relative to global peers on MSCI's assessment of executive pay practices.

**Significant Votes Against Pay Practices (%):** The percentage of portfolio's market value exposed to companies facing significant shareholder votes against pay practices.

**No Pay Performance Link (%):** The percentage of portfolio's market value exposed to companies flagged for executive pay / performance gaps.

**Lack of Internal Pay Equity (%):** The percentage of portfolio's market value exposed to companies facing a lack of internal pay equity.

**Executive Pay Non-Disclosure (%):** The percentage of portfolio's market value exposed to companies flagged for executive pay non-disclosure.

**Accounting Flag (%):** The percentage of portfolio's market value exposed to companies ranking "below average" relative to global peers on MSCI's assessment of accounting aggressiveness.

**ESG Policy:** The Fund ESG Policy factor flag (YES) funds that have adopted investment policies that consider some ESG criteria, including; environmental, social or governance concerns, religious beliefs, inclusive employee policies, or environmentally friendly investments. The flag is attributed to a fund based on what is stated in the fund's investment strategy on the fund prospectus

## Other Metrics

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