



INDEX METHODOLOGY

## NASDAQ-100 ESG INDEX®

### NDXESG

#### INDEX DESCRIPTION

The Nasdaq-100 ESG Index is designed to measure the performance of the companies in the Nasdaq-100 Index that meet specific ESG criteria. Companies are evaluated and weighted on the basis of their business activities, controversies and ESG Risk Ratings.

#### SECURITY ELIGIBILITY CRITERIA

##### Security universe

The Nasdaq-100 ESG Index (NDXESG) at all times consists of a selection of securities in the Nasdaq-100 Index (NDX). Please refer to NDX's methodology for further information on its constituent selection.

##### ESG criteria

A security's issuer must not be positively identified by Sustainalytics as exhibiting any of the following characteristics:

- Non-compliance with the United Nations Global Compact (UNGC) principles and related international norms and standards, such as the Organization for Economic Cooperation and Development (OECD) Guidelines and United Nations (UN) Guiding Principles.
- Having a Controversy Rating of five (5).
- Involvement in specific business activities, as defined in Appendix A.

Additionally, a security issuer must have a Sustainalytics ESG Risk Rating Score. The ESG Risk Rating Score must be lower than 40.

#### INDEX CALENDAR

##### Reconstitution schedule

The Index Reconstitution is conducted quarterly in March, June, September and December.

## **Reconstitution reference dates**

The Security Eligibility Criteria are applied using Sustainalytics ESG Risk Rating Scores available as of the prior month-end (February, May, August and November, respectively).

## **Reconstitution announcement dates**

Index Reconstitutions are announced in early March, June, September and December.

## **Reconstitution effective dates**

Index Reconstitutions become effective at market open on the trading day following the third Friday of March, June, September and December.

## **Rebalance schedule**

The Index is rebalanced quarterly in conjunction with the Index Reconstitution.

## **Rebalance reference dates**

The Index Rebalance uses NDX Index Shares as of the rebalance effective date and Sustainalytics ESG Risk Rating Scores available as of the prior month-end (February, May, August and November respectively).

## **Rebalance announcement dates**

Index Rebalance changes are announced in early March, June, September and December.

## **Rebalance effective dates**

Index Rebalance changes become effective in conjunction with the Index Reconstitution at market open on the trading day following the third Friday in March, June, September and December.

## **Holiday schedule**

The Indexes are calculated Monday through Friday, except on days when the Nasdaq exchange is closed.

## **Index calculation and dissemination schedule**

The Indexes are calculated during the trading day based on the Last Sale Price and are disseminated once per second from 09:30:01 to 17:16:00 ET. The closing value of the indexes may change up until 17:15:00 ET due to corrections to the Last Sale Price of the Index Securities.

## CONSTITUENT SELECTION

### Constituent selection process

All securities that meet the applicable Security Eligibility Criteria are included in the Index.

## CONSTITUENT WEIGHTING

### Constituent weighting scheme

The Index is a modified ESG Risk Rating Score-adjusted market capitalization-weighted index.

### Constituent weighting process

An ESG Risk-Adjusted NDX Market Value is calculated for each Index Security by multiplying a security's Nasdaq-100 market value by a scaled additive inverse ESG Risk Rating Score.

$$ESG\ Risk\text{-}Adjusted\ NDX\ Market\ Value = \frac{40 - ESG\ Risk\ Rating\ Score}{40} \times NDX\ Market\ Value$$

Initial security weights are calculated by dividing a security's ESG Risk-adjusted NDX Market Value by the sum of the ESG Risk-Adjusted NDX Market Values of all Index Securities.

Initial weights are then adjusted by the following four-stage weight adjustment process:

#### Stage 1

If no initial issuer weight exceeds 24%, initial weights are used as Stage 1 weights; otherwise, initial weights are adjusted to meet the following Stage 1 constraint, producing the Stage 1 weights:

- No issuer weight may exceed 20% of the index.

#### Stage 2

If the aggregate weight of the subset of issuers whose Stage 1 weights exceed 4.5% does not exceed 48%, Stage 1 weights are used as Stage 2 weights; otherwise, Stage 1 weights are adjusted to meet the following Stage 2 constraint, producing the Stage 2 weights:

- The aggregate weight of the subset of issuers whose Stage 1 weights exceed 4.5% is set to 40%.

#### Stage 3

If no Stage 2 security weight exceeds 15%, Stage 2 weights are used as Stage 3 weights; otherwise, Stage 2 weights are adjusted to meet the following Stage 3 constraint, producing the Stage 3 weights:

- No security weight may exceed 14% of the index.

#### Stage 4

If the aggregate Stage 3 weight of the subset of Index Securities with the five largest Stage 3 weights is less than 40%, Stage 3 weights are used as final weights; otherwise, Stage 3 weights are adjusted to meet the following constraints, producing the final weights:

- The aggregate weight of the subset of Index Securities with the five largest Stage 3 weights is set to 38.5%.
- No security with a Stage 3 weight outside the largest five may have a final index weight exceeding the lesser of 4.4% or the final index weight of the Index Security ranked fifth by Stage 3 weight.

For additional information about index weighting, see **Nasdaq Index Weight Calculations**.

## INDEX MAINTENANCE

### Deletion policy

The Index applies the same deletion policy as NDX. Please refer to NDX's methodology for further information on its deletion policy.

### Replacement policy

Securities removed from NDX outside of a reconstitution are removed from NDXESG and are not replaced.

### Corporate actions

In the periods between scheduled index reconstitution and rebalancing events, individual Index securities may be the subject to a variety of corporate actions and events that require maintenance and adjustments to the Index. With the exception(s) noted below, specific treatment of each type of corporate action or event is described in **Nasdaq Corporate Actions and Events Manual – Equities**, which is incorporated herein by reference.

In certain cases, corporate actions and events are handled according to the weighting scheme or other index construction techniques employed. Wherever alternate methods are described, the Index will follow the "Market Cap Corporate Action Method."

For handling of changes in TSO greater than or equal to 10.0% arising from other corporate events, please refer to **Nasdaq Corporate Actions and Events Manual – Equities**.

## ADDITIONAL INFORMATION

### Announcements

Nasdaq announces Index-related information via the Nasdaq Global Index Watch (GIW) website at <http://indexes.nasdaqomx.com>.

For more information on the general Index Announcement procedures, please refer to the **Nasdaq Index Methodology Guide**.

## **Unexpected market closures**

For information on Unexpected Market Closures, please refer to the **Nasdaq Index Methodology Guide**.

## **Calculation types**

For information on the Index calculation types as well as the mathematical approach used to calculate the Index(es), please refer to the **Nasdaq Index Policies & Procedures: Calculation Manual – Equities & Commodities**.

## **Recalculation and restatement policy**

For information on the Recalculation and Restatement Policy, please refer to the **Nasdaq Index Recalculation Policy**.

## **Data sources**

For information on data sources and the classification of dividends and associated tax rates, please refer to the **Nasdaq Index Methodology Guide**.

## **Contact information**

For any questions regarding an Index, please contact the Nasdaq Index Client Services team at [indexservices@nasdaq.com](mailto:indexservices@nasdaq.com).

## **Index dissemination**

Index values and weightings information are available through Nasdaq Global Index Watch (GIW) website at <https://indexes.nasdaqomx.com/> as well as the Nasdaq Global Index FlexFile Delivery Service (GIFFD) and Global Index Dissemination Services (GIDS). Similar to the GIDS offerings, Genium Consolidated Feed (GCF) provides real-time Index values and weightings for the Nordic Indexes.

For more detailed information regarding Index Dissemination, see the **Nasdaq Index Methodology Guide**.

## **Website**

For further information, please refer to Nasdaq GIW website at <https://indexes.nasdaqomx.com/>.

## **FTP and dissemination service**

Index values and weightings are available via FTP on the Nasdaq Global Indexes FlexFile Delivery Service (GIFFD). Index values are available via Nasdaq's Global Index Dissemination Services (GIDS).

## GOVERNANCE

### Index governance

Nasdaq Indexes follow the same governance structure. For a detailed list of this information, please see the **Nasdaq Index Methodology Guide**.

### Nasdaq Index Management Committee

A methodology document is created for all new Index Methodologies. The methodology document includes the following: Index Objective, Security Eligibility Criteria, Index Construction, Index Maintenance, Index Governance, Index Policy, and Index Dissemination.

The Nasdaq Index Management Committee approves all new Index Methodologies. This committee is comprised of full-time professional members of Nasdaq. The committee meets regularly, and reviews items including, but not limited to, pending corporate actions that may affect Index constituents, statistics comparing the composition of the indexes to the market, companies that are being considered as candidates for addition to an Index, and any significant market events.

For a detailed overview of the Index Management Committee, please see the **Nasdaq Index Methodology Guide**.

### Internal reviews of methodology

For a detailed description on internal reviews of the Methodology, please see the **Nasdaq Index Methodology Guide**.

### Communication with stakeholders and consultations

For a detailed description on Consultations and Communications with Stakeholders, please see the **Nasdaq Index Methodology Guide**.

### Index cessation

Nasdaq has a documented procedure that is followed for Index Cessation that includes termination/retirement of an Index or Index Family.

For more information, please refer to the **Nasdaq Index Cessation Policy**.

### Discretionary adjustment

This Index Methodology was created by Nasdaq to achieve the aforementioned objective of measuring the underlying purpose of each Index governed by this methodology document. Any deviations from this methodology are made in the sole judgment and discretion of Nasdaq so that the Index continues to achieve its objective.

For more information on potential adjustments including Calculation and Pricing Disruptions, Expert Judgment, and Unexpected Reconstitution/Rebalances, please refer to the **Nasdaq Index Methodology Guide**.

## GLOSSARY OF TERMS AS USED IN THIS DOCUMENT

For the glossary of key terms, refer to the **Nasdaq Index Methodology Guide**.

## APPENDIX A: PROHIBITED AREAS OF BUSINESS INVOLVEMENT

At each quarterly reconstitution, companies engaged in the following business activities, as determined by Sustainalytics, are excluded from the eligible universe.

Category of Involvement	Description	Acceptable involvement range	Acceptable ownership range
Adult Entertainment: Production	The company is involved in the production of adult entertainment and/or owns/operates adult entertainment establishments.	0-4.9% of revenues	n/a
Adult Entertainment: Distribution	The company is involved in the distribution of adult entertainment materials.	0-4.9% of revenues	n/a
Alcoholic Beverages: Production	The company manufactures alcoholic beverages.	0-4.9% of revenues	n/a
Alcoholic Beverages: Related Products/ Services	The company is a supplier of alcohol-related products/services to alcoholic beverage manufacturers.	0-4.9% of revenues	n/a
Alcoholic Beverages: Retail	The company derives revenues from the distribution and/or retail sale of alcoholic beverages.	0-4.9% of revenues	n/a
Arctic Oil & Gas Exploration: Extraction	The company is involved in oil and gas exploration in Arctic regions.	0% of revenues	n/a
Arctic Oil & Gas Exploration: Significant ownership (extraction)	The company owns 10-50 per cent of another company with involvement in oil and gas exploration in Arctic regions.	n/a	0%
Cannabis: Production (Recreational Cannabis)	The company is involved in the development and/or cultivation of cannabis for recreational purposes.	0% of revenues	n/a

Cannabis: Significant ownership (Production Recreational Cannabis)	The company owns 10-50 per cent of another company with involvement in the development and/or cultivation of cannabis for recreational purposes.	n/a	0%
Cannabis: Retail (Recreational Cannabis)	The company derives revenues from the distribution and/or retail sale of cannabis for recreational purposes.	0-4.9% of revenues	n/a
Controversial Weapons: Tailor-made and essential	The company is involved in the core weapon system, or components/services of the core weapon system that are considered tailor-made and essential for the lethal use of the weapon.	No involvement	n/a
Controversial Weapons: Significant ownership (Tailor-made and essential)	The company is involved, through corporate ownership, in the core weapon system, or components/services of the core weapon system that are considered tailor-made and essential for the lethal use of the weapon.	n/a	0%
Controversial Weapons:	The company provides components/services for the core weapon system, which are either not considered tailor-made or not essential to the lethal use of the weapon.	No involvement	n/a
Controversial Weapons: Significant ownership (non tailor-made or non essential)	The company provides, through corporate ownership, components/services for the core weapon system, which are either not considered tailor-made or not essential to the lethal use of the weapon.	n/a	0%
Gambling: Operations	The company owns and/or operates a gambling establishment.	0-4.9% of revenues	n/a
Gambling: Specialized Equipment	The company manufactures specialized equipment used exclusively for gambling.	0-4.9% of revenues	n/a
Gambling: Supporting Products/ Services	The company provides supporting products/services to gambling operations.	0-4.9% of revenues	n/a
Military Contracting: Weapons	The company manufactures military weapon systems and/or integral, tailor-made components or these weapons.	0% of revenues	n/a
Military Contracting: Significant ownership (Weapons)	The company owns 10-50 per cent of another company with involvement in manufacturing military weapon systems and/or integral, tailor-made components or these weapons.	n/a	0-9.9%



Military Contracting: Weapon related products and/or services	The company provides tailor-made products and/or services that support military weapons.	0-4.9% of revenues	n/a
Nuclear Power: Production	The company produces nuclear power.	0-4.9% of revenues	n/a
Nuclear Power: Supporting Products and Services	The company provides products/services that support the nuclear power industry.	0-4.9% of revenues	n/a
Oil & Gas: Production	The company is involved in oil and gas exploration, production, refining, transportation and/or storage. Subcategories: - Exploration and Production - Refining - Transportation - Storage	0-4.9% of revenues	n/a
Oil & Gas: Supporting Products/ Services	The company provides tailor-made products and services that support oil and gas exploration, production, refining, transportation and storage.	0-4.9% of revenues	n/a
Oil & Gas: Generation	The company generates electricity from oil and/or gas.	0-4.9% of revenues	n/a
Oil Sands: Extraction	The company extracts oil sands.	0% of revenues	n/a
Oil Sands: Significant ownership (extraction)	The company owns 10-50 per cent of another company with involvement in extraction of oil sands.	n/a	0-9.9%
Riot Control: Protection equipment and riot control weapons	The company manufactures protection equipment and riot control weapons.	No involvement	n/a
Riot Control: Significant ownership (Protection equipment and riot control weapons)	The company owns 10-50 per cent of another company with involvement in manufacturing protection equipment and riot control weapons.	n/a	0-9.9%
Shale Energy: Extraction	The company is involved in shale energy exploration and/or production.	0% of revenues	n/a
Shale Energy: Significant ownership (extraction)	The company owns 10-50 per cent of another company with involvement in shale energy exploration and/or production.	n/a	0-9.9%

Small Arms: Civilian customers (Assault weapons)	The company manufactures and sells assault weapons to civilian customers.	0% of revenues	n/a
Small Arms: Significant ownership (Civilian customers – assault weapons)	The company owns 10-50 per cent of another company that manufactures and sells assault weapons to civilian customers.	n/a	0-9.9%
Small Arms: Military/law enforcement customers	The company manufactures and sells small arms to military/law enforcement.	0% of revenues	n/a
Small Arms: Significant ownership (Military/law enforcement customers)	The company owns 10-50 per cent of another company manufactures and sells small arms to military/law enforcement.	n/a	0-9.9%
Small Arms: Key components	The company manufactures and sells key components of small arms.	0-4.9% of revenues	n/a
Small Arms: Retail/ Distribution (assault weapons)	The company is involved in the retail and/or distribution of assault weapons.	0-4.9% of revenues	n/a
Small Arms: Retail/distribution (Non-assault weapons)	The company is involved in the retail and/or distribution of small arms (non- assault weapons).	0-4.9% of revenues	n/a
Small Arms: Civilian customers (Non-assault weapons)	The company manufactures and sells small arms (non-assault weapons) to civilian customers.	0% of revenues	n/a
Small Arms: Significant ownership (Civilian customers – non-assault weapons)	The company owns 10-50 per cent of another company that manufactures and sells small arms (non-assault weapons) to civilian customers.	n/a	0-9.9%
Thermal Coal: Extraction	The company extracts thermal coal.	0-4.9% of revenues	n/a
Thermal Coal: Power Generation	The company generates electricity from thermal coal.	0-4.9% of revenues	n/a
Tobacco Products: Production	The company manufactures tobacco products.	0% of revenues	n/a
Tobacco Products: Significant ownership (production)	The company owns 10-50 per cent of another company with involvement in manufacturing tobacco products.	n/a	0-9.9%
Tobacco Products: Related Products/ Services	The company supplies tobacco-related products/services.	0-4.9% of revenues	n/a

Tobacco Products: Retail	The company derives revenues from the distribution and/or retail sale of tobacco products.	0-4.9% of revenues	n/a
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## APPENDIX B: METHODOLOGY CHANGE LOG

Effective Date	Methodology Section	Previous	Updated
06/30/2023	Security eligibility criteria: ESG eligibility	<p>A security issuer must not be involved in specific business activities, as defined in Appendix I and determined by Sustainalytics.</p> <p>A security issuer must not be deemed non-compliant with the principles of the United Nations Global Compact, as determined by Sustainalytics.</p> <p>A security issuer must not have a controversy level higher than four (4), as defined by Sustainalytics.</p> <p>A security issuer must have a Sustainalytics ESG Risk Rating Score. The ESG Risk Rating Score must be lower than 40.</p>	<p>A security's issuer must not be positively identified by Sustainalytics as exhibiting any of the following characteristics:</p> <ul style="list-style-type: none"> <li>• Non-compliance with the United Nations Global Compact (UNGC) principles and related international norms and standards, such as the Organization for Economic Cooperation and Development (OECD) Guidelines and United Nations (UN) Guiding Principles.</li> <li>• Having a Controversy Rating of five (5).</li> <li>• Involvement in specific business activities, as defined in Appendix A.</li> </ul> <p>Additionally, a security issuer must have a Sustainalytics ESG Risk Rating Score. The ESG Risk Rating Score must be lower than 40.</p>

## DISCLAIMER

Nasdaq may, from time to time, exercise reasonable discretion as it deems appropriate in order to ensure Index integrity, including but not limited to, quantitative inclusion criteria. Nasdaq may also, due to special circumstances, if deemed essential, apply discretionary adjustments to ensure and maintain the high quality of the index construction and calculation. Nasdaq does not guarantee that any Index accurately reflects future market performance.

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