

# How the Proposed Consultation on GICS® Structure Changes May Affect the S&P Carbon Efficient Indices

As of Oct. 18, 2021, S&P Dow Jones Indices (S&P DJI) and MSCI Inc. (MSCI) decided to consult with members of the investment community on potential changes to the GICS structure, which will likely be announced in March 2022 and become effective in March 2023.<sup>1</sup> The review was intended to ensure that the GICS structure is reflective of today’s markets and continues to be an accurate and complete industry framework. The consultation began on Oct. 18, 2021, and ends on Feb. 18, 2022.<sup>2</sup> Exhibit 1 summarizes the topics for the GICS Change Consultation.

**Exhibit 1: Summary of Topics for the GICS Change Consultation**

| NO. | TOPIC                                                   | SUMMARY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-----|---------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Classification of Renewable Energy                      | Consolidate all “energy” producers and related equipment & service providers under the Energy sector. This includes producers of non-renewable energy such as oil, gas, thermal coal, and electricity from non-renewable sources, as well as generators of electricity from renewable sources. This enables a distinction between “energy generation” and “energy distribution to end users” and consolidates renewable energy generation and renewable energy equipment companies under the Energy sector. |
| 2   | Classification of Retailers                             | Discontinue the Internet & Direct Marketing Retail sub-industry and consolidate various retail formats spread across the Consumer Discretionary and Consumer Staples sectors.                                                                                                                                                                                                                                                                                                                               |
| 3   | Classification of Data Processing & Outsourced Services | Discontinue the Data Processing & Outsourced Services sub-Industry from the Information Technology sector and move it to the Industrials sector. In addition, reclassify transaction and payment processing companies from the Information Technology sector to the Financials sector.                                                                                                                                                                                                                      |
| 4   | Classification of Banks and Thrifts & Mortgage Finance  | Consolidate Diversified Banks, Regional Banks, and Thrifts/Saving Banks into one sub-industry and reclassify Mortgage Finance from Banks to the Financial Services industry group.                                                                                                                                                                                                                                                                                                                          |
| 5   | Classification of REITs                                 | Introduce more granularity to Equity REITs.                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 6   | Classification of Transportation                        | Redefine the Trucking sub-industry and create one new sub-industry called Passenger Ground Transportation.                                                                                                                                                                                                                                                                                                                                                                                                  |
| 7   | Update to GICS Definition: Classification of Cannabis   | Update the definition of Pharmaceuticals to include companies primarily manufacturing cannabis-based drugs used to treat diseases. Pharmaceuticals will exclude manufacturers of other cannabis-based products classified based on their end-use.                                                                                                                                                                                                                                                           |

Source: S&P Dow Jones Indices LLC, MSCI Inc. Data as of Jan. 21, 2022. The Global Industry Classification Standard (GICS) was developed by and is the exclusive property of MSCI and S&P DJI. “Global Industry Classification Standard (GICS)” is a service mark of MSCI and S&P DJI. Table is provided for illustrative purposes. For details on the proposed GICS Structure change, please see [CONSULTATION ON POTENTIAL CHANGES TO THE GLOBAL IN 2022](#).

This analysis has been prepared by the Index Research & Design team of S&P Dow Jones Indices LLC (“S&P DJI”). S&P DJI maintains an organizational/operating structure that separates commercial functions from analytical functions. As such, the Research & Development team will not have access to any final changes that may arise out of the GICS Change Consultation until that information is made publicly available.

<sup>1</sup> [https://www.spglobal.com/spdji/en/documents/indexnews/announcements/20211129-1445566/1445566\\_gicsconsultationupdatednoticenov292021.pdf](https://www.spglobal.com/spdji/en/documents/indexnews/announcements/20211129-1445566/1445566_gicsconsultationupdatednoticenov292021.pdf)

<sup>2</sup> For details of the consultation announcement, please see [https://www.spglobal.com/spdji/en/documents/indexnews/announcements/20211018-1444382/1444382\\_prqicsconsultationoct2021.pdf](https://www.spglobal.com/spdji/en/documents/indexnews/announcements/20211018-1444382/1444382_prqicsconsultationoct2021.pdf) and [https://www.spglobal.com/spdji/en/documents/indexnews/announcements/20220121-1449209/1449209\\_gicsconsultationupdatenoticejan212022.pdf](https://www.spglobal.com/spdji/en/documents/indexnews/announcements/20220121-1449209/1449209_gicsconsultationupdatenoticejan212022.pdf)

## INTRODUCTION

This paper aims to estimate how the proposed GICS structure changes in the consultation may potentially affect the S&P Global ex-Japan LargeMidCap Carbon Efficient Index and the S&P/JPX Carbon Efficient Index, in terms of GICS sector and GICS industry group index weight, carbon decile weight distribution, index carbon intensity reduction, and index portfolio turnover. To complete the analysis, we used constituent data for the indices as of March 29, 2021, which is the most recent index rebalance date. Please note that these estimates should not be considered as final impacts to the indices even if the proposals are ultimately adopted.

## SUMMARY ANALYSIS

- This analysis aims to evaluate the impact of the proposed GICS structure changes on the **S&P Global ex-Japan LargeMidCap Carbon Efficient Index** and **S&P/JPX Carbon Efficient Index** based on a blend of proforma and estimated GICS classifications for index constituents as of the rebalance on March 19, 2021.<sup>3</sup>
- The proposed new GICS structure consists of 26 GICS industry groups with three newly formed industry groups, **Non-Renewable Energy** (high impact), **Renewable Energy** (high impact), and **Equity Real Estate Investment Trusts** (medium impact), as well as the discontinuation of the **Energy** industry group (high impact). Impact classification for rest of the industry groups will be unchanged.
- The proposed GICS changes were expected to affect the existing **Energy, Utilities, Retailing, Diversified Financials, Software & Services**, and **Real Estate** industry groups the most in terms of constituent numbers and index weight compared with the current structure.
- With the proposed GICS structure, we estimate a higher weighted average carbon intensity reduction (WACI)<sup>4</sup> in **Non-Renewable Energy, Renewable Energy**, and **Consumer Services**; and a smaller WACI reduction in **Food & Staples Retailing** and **Semiconductors & Semiconductor Equipment** for the **S&P Global ex-Japan LargeMidCap Carbon Efficient Index**.
- For the **S&P/JPX Carbon Efficient Index**, we estimate a higher WACI reduction in **Non-Renewable Energy, Renewable Energy**, and **Commercial & Professional Services**, with a lower WACI reduction in **Real Estate**.
- We estimate WACI reduction for the **S&P Global ex-Japan LargeMidCap Carbon Efficient Index** and **S&P/JPX Carbon Efficient Index** as of March 19, 2021 would slightly increase to 41.5% and 19.5%, respectively, with the proposed GICS structure, from their existing values of 40.1% and 18.1%, respectively, based on current GICS structure.
- March 19, 2021 index portfolios based on the proposed GICS structure had estimated portfolio turnover of 1.05% and 0.98% for **S&P Global ex-Japan LargeMidCap Carbon Efficient Index** and **S&P/JPX Carbon Efficient Index**, respectively, versus the index portfolios based on current GICS structure,<sup>5</sup> which suggests the proposed GICS changes would have small impact on the overall index weight.

<sup>3</sup> Please note that all estimates in this research analysis should not be considered as final impacts to the indices even if the proposals are ultimately adopted.

<sup>4</sup> Weighted-average carbon intensity reduction (WACI) for the S&P Global ex-Japan LargeMidCap and S&P/JPX Carbon Efficient indices were measured against their respective benchmark indices, S&P Global ex-Japan LargeMidCap index and TOPIX respectively.

<sup>5</sup> One-way index portfolio turnover measured based on index constituents and reference data for the March 19, 2021, index rebalance.

## METHODOLOGY

To conduct the analysis summarized above and described below in more detail, S&P DJI's Research and Development team used the following methodology.

S&P DJI and MSCI provided proforma classifications for a select list of companies<sup>6</sup> potentially affected by the consultation with market capitalizations above USD 2 billion on Jan. 21, 2022.<sup>7</sup> Based on the proforma classifications for these companies and information from the consultation proposal document,<sup>8</sup> we estimated the GICS classification changes for the rest of the companies in the S&P Global LargeMidCap index and TOPIX indices based on reference data for the March 19, 2021, rebalance.<sup>9</sup> Please note that the GICS proposals may be amended prior to adoption, and that these proforma and estimated classifications should not be considered final even if the proposals are ultimately adopted.

Based on companies' proforma and estimated GICS classifications, we calculated the S&P Carbon Global Standard Classification decile thresholds and impact classifications for each GICS industry group, and then assigned carbon decile and carbon-adjusted weight for all companies in the S&P Global ex-Japan LargeMidCap Carbon Efficient Index and S&P/JPX Carbon Efficient Index accordingly.<sup>10</sup>

The index universe and company referenced data, including market cap, GICS industry group classification (current structure), carbon intensity, carbon disclosure status, etc., used in the analysis are based on reference data for the March 19, 2021, rebalance, which was the latest annual rebalance date for the S&P Global ex-Japan LargeMidCap Carbon Efficient Index and S&P/JPX Carbon Efficient Index.

<sup>6</sup> There are 937 companies in the selected company list. For details, please see [https://www.spglobal.com/spdji/en/documents/indexnews/announcements/20220121-1449209/1449209\\_gicsconsultationupdatenoticejan212022.pdf](https://www.spglobal.com/spdji/en/documents/indexnews/announcements/20220121-1449209/1449209_gicsconsultationupdatenoticejan212022.pdf) and [https://www.spglobal.com/spdji/en/documents/indexnews/announcements/20220121-1449221/1449221\\_spdjiselectcompaniespotentiallyimpactedbygicsstructurechangesjan2022.xlsx](https://www.spglobal.com/spdji/en/documents/indexnews/announcements/20220121-1449221/1449221_spdjiselectcompaniespotentiallyimpactedbygicsstructurechangesjan2022.xlsx)

<sup>7</sup> Please note that these proforma classifications should not be considered as final classifications even if the proposals are ultimately adopted.

<sup>8</sup> For the full consultation proposal document, please see [https://www.spglobal.com/spdji/en/documents/indexnews/announcements/20211129-1445560/1445560\\_gicsconsultationupdatednov292021.pdf](https://www.spglobal.com/spdji/en/documents/indexnews/announcements/20211129-1445560/1445560_gicsconsultationupdatednov292021.pdf)

<sup>9</sup> March 19, 2021 is the latest annual rebalance date for the S&P Global ex-Japan LargeMidCap Carbon Efficient Index and S&P/JPX Carbon Efficient Index.

<sup>10</sup> For details of the index methodology, please see <https://www.spglobal.com/spdji/en/documents/methodologies/methodology-sp-global-carbon-efficient-index-series.pdf>

## Potential Impact to the S&P Global Ex-Japan LargeMidCap Carbon Efficient Index

1. The proposed GICS structure change suggested the formation of two new GICS industry groups, namely Non-Renewable Energy and Renewable Energy, which will affect the current Energy and Utilities industry groups. We estimated 100 constituents in Energy with a weight of 3.4% would be classified to Non-Renewable Energy, while 17 and 12 constituents in Utilities would be classified to Non-Renewable Energy and Renewable Energy, respectively (see Table 2a).

The proposed GICS structure would result in a small weight reduction of 0.2% in Utilities (see Table 3a), which translated into 0.3% weight decrease in middle deciles and 0.1% weight increase in bottom decile (see Table 5a). We expect Utilities to remain as a high impact industry group and the WACI reduction for this industry group would slightly decrease from 43.7% to 43.2% (see Table 6).

Based on our estimation, companies in Non-Renewable Energy and Renewable Energy had wider carbon intensity decile threshold spreads than the current Energy industry group and would be classified as high impact industry groups. Both of these two newly formed industry groups would offer higher carbon intensity reduction than the current Energy industry group.

2. The proposed classification of retailers would reduce by nine constituents and have a 0.8% decrease in weight in the Retailing industry group, which will be renamed to Consumer Discretionary Distribution & Retail under the proposed GICS structure (see Tables 2a and 3a). This change would slightly reduce the top and mid carbon deciles' weight for the industry group and result in smaller carbon intensity reduction from 8.8% to 7.0% (see Table 6). Consumer Discretionary Distribution & Retail is expected to remain as a low impact industry group.
3. The reclassification of transaction and payment processing companies from Information Technology to Financials would transform 19 constituents and 2.8% of index weight from the Software & Services industry group to the Diversified Financial Services industry group, which will be renamed as Financial Services in the proposed GICS structure. In addition, the discontinuation of the Data Processing & Outsourced Services sub-industry would migrate seven constituents with 0.2% index weight from the Software & Services industry group to the Commercial & Professional Services or Consumer Services industry groups (see Tables 2a and 3a).

With these proposed GICS structure changes, Software & Services and Financial Services are expected to remain as low impact industry groups while Commercial & Professional Services and Consumer Services should remain as mid impact industry group. In Software & Services, we estimated a reduction of index weight in high-decile constituents from 4.1% to 2.0% and mid-decile constituents from 2.2% to 1.3% (see Table 5a). This would result in a smaller WACI reduction for the industry group, from 6.2% in current to 4.7% (see Table 6).

In contrast, we expect an increase of index weight in high-decile constituents, from 1.4% to 3.0%, and mid-decile constituents, from 1.6% to 2.5%, for Financial Services. This would result in a higher WACI reduction for the industry group, from 14.1% to 16.5%.

4. Two index constituents in Mortgage Finance (under the Thrifts & Mortgage Finance sub-industry) with a weight of 0.1% are expected to be reclassified from Banks industry group to the Financial Services industry group. This should pose minimal impact on decile weight distribution and WACI reduction for the Banks industry group.

5. We estimated 51 constituents in the current **Real Estate** industry group with a weight of 1.7% would be classified to the newly formed **Equity REITs** industry group. Constituents in Equity REITs had the highest weight concentration in top deciles (1.0%), while the top decile weight in Real Estate would drop from 1.4% to 0.4%. Both **Real Estate** and **Equity REITs** are expected to be mid impact industry groups and their WACI reductions should be close to that for the current **Real Estate** industry group (see Table 6).
6. The reorganization of sub-industries in **Transportation** and the expanded definition of the **Pharmaceuticals** sub-industry are expected to have no impact on the index constituent count or weight at the GICS industry group level.
7. With the proposed GICS changes, there was an increase in the overall carbon intensity reduction from 40.1% to 41.5% based on estimation. An index portfolio based on the proposed GICS structure had an estimated one-way turnover of 1.05% versus an index portfolio based on the current GICS structure, which suggested minimal constituent weight changes for the overall index.

### Potential Impact to the S&P/JPX Carbon Efficient Index

1. We estimated 17 constituents in Energy with a weight of 0.7% to be classified to Non-Renewable Energy, while only one and three constituents in Utilities to be classified to Non-Renewable Energy and Renewable Energy, respectively (see Table 2b).

The proposed GICS structure would result in a small weight reduction of 0.1% in Utilities (see Table 3b), which translated into a 0.1% decrease in mid decile constituent weights (see Table 5b). The estimated carbon intensity reduction for Utilities increased from 30.5% to 32.1%. Non-Renewable Energy and Renewable Energy had estimated carbon intensity reductions of 42.3% and 73.4%, respectively, which were higher than that of the current Energy industry group (see Table 6).

2. The Retailing industry group will be renamed to Consumer Discretionary Distribution & Retail under the proposed GICS structure, but no constituent would be classified into other industry groups based our estimation (see Tables 2b and 3b).
3. The discontinuation of the Data Processing and Outsourced Services sub-industry and the reclassification of transaction and payment processing from the Information Technology sector to the Financials sector would transform seven constituents with 0.2% of index weight from the Software & Services industry group to the Financial Services or Commercial & Professional Services industry groups (see Tables 2b and 3b).

We estimated an increase of index weight in mid-decile constituents from 0.9% to 1.1% and a reduction of index weight in bottom-decile constituents from 1.7% to 1.3% for the Software & Services industry group (see Table 5b). In Financial Services, we expected a minor increase of index weight in mid-decile constituents from 0.6% to 0.7%. We did not expect a material difference on the WACI reductions for both the **Software & Services** and **Financial Services** industry groups with the proposed GICS structure change (see Table 6).

4. Only **two** companies with a weight of less than **0.1%** that are currently classified under the **Banks** industry group would migrate to the **Financial Services** (proposed name **Diversified Finance**) industry group (see Tables 2a and 3a).

5. Due to the absence of REITs in the TOPIX universe, the introduction of the **Equity REITs** industry group would not affect any constituent GICS classification. However, this proposed change would result in an increase of index weight in low-decile companies from 0% to 0.1% for the Real Estate industry group and a decrease its carbon intensity reduction from 24.1 to 18.9%.
6. The reorganization of sub-industries in **Transportation** and the expanded definition of the **Pharmaceuticals** sub-industry would have no impact on the index constituent count and weight at the industry group level.
7. With the proposed GICS changes, we estimated an increase in the overall carbon intensity reduction from 18.1% to 19.5%. An index portfolio based on the proposed GICS structure would have an estimated one-way turnover of 0.98% versus an index portfolio based on the current GICS structure, which suggested minor constituent weight changes for the overall index.

## REPORTS

**Table 1: Current versus Proposed GICS Sector and Industry Group Structure**

| GICS SECTOR            | GICS INDUSTRY GROUP                            |                                                | REMARKS     |
|------------------------|------------------------------------------------|------------------------------------------------|-------------|
|                        | CURRENT GICS STRUCTURE                         | PROPOSED GICS STRUCTURE CHANGE                 |             |
| Energy                 | Energy                                         |                                                | Discontinue |
|                        |                                                | Non-Renewable Energy                           | New         |
|                        |                                                | Renewable Energy                               | New         |
| Materials              | Materials                                      | Materials                                      |             |
| Industrials            | Capital Goods                                  | Capital Goods                                  |             |
|                        | Commercial & Professional Services             | Commercial & Professional Services             |             |
|                        | Transportation                                 | Transportation                                 |             |
| Consumer Discretionary | Automobiles & Components                       | Automobiles & Components                       |             |
|                        | Consumer Durables & Apparel                    | Consumer Durables & Apparel                    |             |
|                        | Consumer Services                              | Consumer Services                              |             |
|                        | Retailing                                      | Consumer Discretionary Distribution & Retail   | Rename      |
| Consumer Staples       | Food & Staples Retailing                       | Consumer Staples Distribution & Retail         | Rename      |
|                        | Food, Beverage & Tobacco                       | Food, Beverage & Tobacco                       |             |
|                        | Household & Personal Products                  | Household & Personal Products                  |             |
| Health Care            | Health Care Equipment & Services               | Health Care Equipment & Services               |             |
|                        | Pharmaceuticals, Biotechnology & Life Sciences | Pharmaceuticals, Biotechnology & Life Sciences |             |
| Financials             | Banks                                          | Banks                                          |             |
|                        | Diversified Financials                         | Financial Services                             | Rename      |
|                        | Insurance                                      | Insurance                                      |             |
| Information Technology | Software & Services                            | Software & Services                            |             |
|                        | Technology Hardware & Equipment                | Technology Hardware & Equipment                |             |
|                        | Semiconductors & Semiconductor Equipment       | Semiconductors & Semiconductor Equipment       |             |
| Communication Services | Telecommunication Services                     | Telecommunication Services                     |             |
|                        | Media & Entertainment                          | Media & Entertainment                          |             |
| Utilities              | Utilities                                      | Utilities                                      |             |
| Real Estate            | Real Estate                                    | Real Estate                                    |             |
|                        |                                                | Equity Real Estate Investment Trusts (REITs)   | New         |

Source: S&P Dow Jones Indices LLC. Data as of Jan. 21, 2022. The Global Industry Classification Standard (GICS) was developed by and is the exclusive property of MSCI and S&P DJI. "Global Industry Classification Standard (GICS)" is a service mark of MSCI and S&P DJI. Table is provided for illustrative purposes. For details on the proposed GICS Structure change, please see [CONSULTATION ON POTENTIAL CHANGES TO THE GLOBAL IN 2022](#).

**Table 2a: Constituents' Industry Group Change Transition Matrix**  
Number of Constituents by GICS Industry Group for the S&P Global ex-Japan LargeMidCap Carbon Efficient Index as of March 19, 2021

| NUMBER OF CONSTITUENTS<br>(Estimates for Proposed Structure) |                                          | GICS INDUSTRY GROUP (PROPOSED STRUCTURE) |                  |               |                                    |                   |                                              |                                        |       |                    |                     |                                          |           |             |                                              |
|--------------------------------------------------------------|------------------------------------------|------------------------------------------|------------------|---------------|------------------------------------|-------------------|----------------------------------------------|----------------------------------------|-------|--------------------|---------------------|------------------------------------------|-----------|-------------|----------------------------------------------|
|                                                              |                                          | Non-Renewable Energy                     | Renewable Energy | Capital Goods | Commercial & Professional Services | Consumer Services | Consumer Discretionary Distribution & Retail | Consumer Staples Distribution & Retail | Banks | Financial Services | Software & Services | Semiconductors & Semiconductor Equipment | Utilities | Real Estate | Equity Real Estate Investment Trusts (REITs) |
| GICS Industry Group (Current Structure)                      | Energy                                   | 100                                      | 1                | -             | -                                  | -                 | -                                            | -                                      | -     | -                  | -                   | -                                        | 1         | -           | -                                            |
|                                                              | Capital Goods                            | -                                        | 5                | 184           | -                                  | -                 | -                                            | -                                      | -     | -                  | -                   | -                                        | -         | -           | -                                            |
|                                                              | Commercial & Professional Services       | -                                        | -                | -             | 33                                 | -                 | -                                            | -                                      | -     | -                  | -                   | -                                        | -         | -           | -                                            |
|                                                              | Consumer Services                        | -                                        | -                | -             | -                                  | 46                | -                                            | -                                      | -     | -                  | -                   | -                                        | -         | -           | -                                            |
|                                                              | Retailing                                | -                                        | -                | -             | 1                                  | 4                 | 74                                           | 4                                      | -     | -                  | -                   | -                                        | -         | -           | -                                            |
|                                                              | Food & Staples Retailing                 | -                                        | -                | -             | -                                  | -                 | -                                            | 45                                     | -     | -                  | -                   | -                                        | -         | -           | -                                            |
|                                                              | Banks                                    | -                                        | -                | -             | -                                  | -                 | -                                            | -                                      | 188   | 2                  | -                   | -                                        | -         | -           | -                                            |
|                                                              | Diversified Financials                   | -                                        | -                | -             | -                                  | -                 | -                                            | -                                      | -     | 114                | -                   | -                                        | -         | -           | -                                            |
|                                                              | Software & Services                      | -                                        | -                | -             | 5                                  | 2                 | -                                            | -                                      | -     | 19                 | 76                  | -                                        | -         | -           | -                                            |
|                                                              | Semiconductors & Semiconductor Equipment | -                                        | 2                | -             | -                                  | -                 | -                                            | -                                      | -     | -                  | -                   | 54                                       | -         | -           | -                                            |
|                                                              | Utilities                                | 17                                       | 12               | -             | -                                  | -                 | -                                            | -                                      | -     | -                  | -                   | -                                        | 101       | -           | -                                            |
|                                                              | Real Estate                              | -                                        | -                | -             | -                                  | -                 | -                                            | -                                      | -     | -                  | -                   | -                                        | -         | 77          | 51                                           |

Figures based on current GICS structure versus estimates based on proposed GICS structure change.

Source: S&P Dow Jones Indices LLC. Constituents for the S&P Global ex-Japan LargeMidCap Carbon Efficient Index and S&P/JPX Carbon Efficient Index based on reference date data for the March 19, 2021, rebalance. GICS industry group estimates for companies as of Jan. 21, 2022. The Global Industry Classification Standard (GICS) was developed by and is the exclusive property of MSCI and S&P DJI. "Global Industry Classification Standard (GICS)" is a service mark of MSCI and S&P DJI. Table is provided for illustrative purposes. Please note that all estimates in this research analysis should not be considered as final impacts to the indices even if the proposals are ultimately adopted. For details on the proposed GICS Structure change, please see [CONSULTATION ON POTENTIAL CHANGES TO THE GLOBAL IN 2022](#).



**Table 2b: Constituents' Industry Group Change Transition Matrix**  
**Number of Constituents by GICS Industry Group for the S&P/JPX Carbon Efficient Index**

| NUMBER OF CONSTITUENTS<br>(Estimates for Proposed Structure) |                                    | GICS INDUSTRY GROUP (PROPOSED STRUCTURE) |                  |                                    |                                              |                                        |                    |                     |           |
|--------------------------------------------------------------|------------------------------------|------------------------------------------|------------------|------------------------------------|----------------------------------------------|----------------------------------------|--------------------|---------------------|-----------|
|                                                              |                                    | Non-Renewable Energy                     | Renewable Energy | Commercial & Professional Services | Consumer Discretionary Distribution & Retail | Consumer Staples Distribution & Retail | Financial Services | Software & Services | Utilities |
| GICS Industry Group<br>(Current Structure)                   | Energy                             | 17                                       | -                | -                                  | -                                            | -                                      | -                  | -                   | -         |
|                                                              | Commercial & Professional Services |                                          |                  | 96                                 |                                              |                                        |                    |                     |           |
|                                                              | Retailing                          | -                                        | -                | -                                  | 96                                           | -                                      | -                  | -                   | -         |
|                                                              | Food & Staples Retailing           | -                                        | -                | -                                  | -                                            | 55                                     | -                  | -                   | -         |
|                                                              | Banks                              | -                                        | -                | -                                  | -                                            | -                                      | 2                  | -                   | -         |
|                                                              | Diversified Financials             | -                                        | -                | -                                  | -                                            | -                                      | 50                 | -                   | -         |
|                                                              | Software & Services                | -                                        | -                | 4                                  | -                                            | -                                      | 3                  | 118                 | -         |
|                                                              | Utilities                          | 1                                        | 3                | -                                  | -                                            | -                                      | -                  | -                   | 17        |

Figures based on current GICS structure versus estimates based on proposed GICS structure change.  
Source: S&P Dow Jones Indices LLC. Constituents for the S&P Global ex-Japan LargeMidCap Carbon Efficient Index and S&P/JPX Carbon Efficient Index based on reference date data for the March 19, 2021 , rebalance. GICS industry group estimates for companies as of Jan. 21, 2022. The Global Industry Classification Standard (GICS) was developed by and is the exclusive property of MSCI and S&P DJI. "Global Industry Classification Standard (GICS)" is a service mark of MSCI and S&P DJI. Table is provided for illustrative purposes. Please note that all estimates in this research analysis should not be considered as final impacts to the indices even if the proposals are ultimately adopted. For details on the proposed GICS Structure change, please see [CONSULTATION ON POTENTIAL CHANGES TO THE GLOBAL IN 2022](#).

**Table 3a: Number of Constituents and Index Weight by GICS Industry Group for the S&P Global ex-Japan LargeMidCap Carbon Efficient Index**

| GICS INDUSTRY GROUP                            |                                                | NUMBER OF CONSTITUENTS |                                |                        | INDEX WEIGHT      |                                |                        |
|------------------------------------------------|------------------------------------------------|------------------------|--------------------------------|------------------------|-------------------|--------------------------------|------------------------|
| Current GICS Structure                         | Proposed GICS Structure                        | Current Structure      | Proposed Structure (Estimates) | Difference (Estimates) | Current Structure | Proposed Structure (Estimates) | Difference (Estimates) |
| Energy                                         |                                                | 102                    | 0                              | -102                   | 3.4%              | 0.0%                           | -3.4%                  |
|                                                | Non-Renewable Energy                           | 0                      | 117                            | 117                    | 0.0%              | 3.4%                           | 3.4%                   |
|                                                | Renewable Energy                               | 0                      | 20                             | 20                     | 0.0%              | 0.3%                           | 0.3%                   |
| Materials                                      | Materials                                      | 210                    | 210                            | 0                      | 4.7%              | 4.7%                           | 0.0%                   |
| Capital Goods                                  | Capital Goods                                  | 189                    | 184                            | -5                     | 5.6%              | 5.5%                           | -0.1%                  |
| Commercial & Professional Services             | Commercial & Professional Services             | 33                     | 39                             | 6                      | 1.0%              | 1.2%                           | 0.2%                   |
| Transportation                                 | Transportation                                 | 84                     | 84                             | 0                      | 2.1%              | 2.1%                           | 0.0%                   |
| Automobiles & Components                       | Automobiles & Components                       | 59                     | 59                             | 0                      | 2.4%              | 2.4%                           | 0.0%                   |
| Consumer Durables & Apparel                    | Consumer Durables & Apparel                    | 57                     | 57                             | 0                      | 1.8%              | 1.8%                           | 0.0%                   |
| Consumer Services                              | Consumer Services                              | 46                     | 52                             | 6                      | 1.5%              | 2.1%                           | 0.5%                   |
| Retailing                                      | Consumer Discretionary Distribution & Retail   | 83                     | 74                             | -9                     | 6.9%              | 6.1%                           | -0.8%                  |
| Food & Staples Retailing                       | Consumer Staples Distribution & Retail         | 45                     | 49                             | 4                      | 1.3%              | 1.7%                           | 0.3%                   |
| Food, Beverage & Tobacco                       | Food, Beverage & Tobacco                       | 114                    | 114                            | 0                      | 3.8%              | 3.8%                           | 0.0%                   |
| Household & Personal Products                  | Household & Personal Products                  | 29                     | 29                             | 0                      | 1.7%              | 1.7%                           | 0.0%                   |
| Health Care Equipment & Services               | Health Care Equipment & Services               | 86                     | 86                             | 0                      | 4.5%              | 4.5%                           | 0.0%                   |
| Pharmaceuticals, Biotechnology & Life Sciences | Pharmaceuticals, Biotechnology & Life Sciences | 110                    | 110                            | 0                      | 7.0%              | 7.0%                           | 0.0%                   |
| Banks                                          | Banks                                          | 190                    | 188                            | -2                     | 7.0%              | 6.9%                           | -0.1%                  |
| Diversified Financials                         | Financial Services                             | 114                    | 135                            | 21                     | 4.3%              | 7.1%                           | 2.8%                   |
| Insurance                                      | Insurance                                      | 92                     | 92                             | 0                      | 2.9%              | 2.9%                           | 0.0%                   |
| Software & Services                            | Software & Services                            | 102                    | 76                             | -26                    | 11.2%             | 8.3%                           | -3.0%                  |
| Technology Hardware & Equipment                | Technology Hardware & Equipment                | 91                     | 91                             | 0                      | 6.4%              | 6.4%                           | 0.0%                   |
| Semiconductors & Semiconductor Equipment       | Semiconductors & Semiconductor Equipment       | 56                     | 54                             | -2                     | 5.2%              | 5.1%                           | 0.0%                   |
| Telecommunication Services                     | Telecommunication Services                     | 73                     | 73                             | 0                      | 1.9%              | 1.9%                           | 0.0%                   |
| Media & Entertainment                          | Media & Entertainment                          | 86                     | 86                             | 0                      | 8.1%              | 8.1%                           | 0.0%                   |
| Utilities                                      | Utilities                                      | 130                    | 102                            | -28                    | 2.8%              | 2.6%                           | -0.2%                  |
| Real Estate                                    | Real Estate                                    | 128                    | 77                             | -51                    | 2.3%              | 0.7%                           | -1.7%                  |
|                                                | Equity Real Estate Investment Trusts (REITs)   | 0                      | 51                             | 51                     | 0.0%              | 1.7%                           | 1.7%                   |
| <b>Total</b>                                   | <b>Total</b>                                   | <b>2309</b>            | <b>2309</b>                    |                        | <b>100.0%</b>     | <b>100.0%</b>                  |                        |

Figures based on current GICS structure versus estimates based on proposed GICS structure change.  
Source: S&P Dow Jones Indices LLC. Constituents for the S&P Global ex-Japan LargeMidCap Carbon Efficient Index and S&P/JPX Carbon Efficient Index based on reference date data for the March 19, 2021, rebalance. GICS industry group estimates for companies as of Jan. 21, 2022. The Global Industry Classification Standard (GICS) was developed by and is the exclusive property of MSCI and S&P DJI. "Global Industry Classification Standard (GICS)" is a service mark of MSCI and S&P DJI. Table is provided for illustrative purposes. Please note that all estimates in this research analysis should not be considered as final impacts to the indices even if the proposals are ultimately adopted. For details on the proposed GICS Structure change, please see [CONSULTATION ON POTENTIAL CHANGES TO THE GLOBAL IN 2022](#).

| GICS INDUSTRY GROUP                            |                                                | NUMBER OF CONSTITUENTS |                                |                        | INDEX WEIGHT      |                                |                        |
|------------------------------------------------|------------------------------------------------|------------------------|--------------------------------|------------------------|-------------------|--------------------------------|------------------------|
| Current GICS Structure                         | Proposed GICS Structure                        | Current Structure      | Proposed Structure (Estimates) | Difference (Estimates) | Current Structure | Proposed Structure (Estimates) | Difference (Estimates) |
| Energy                                         |                                                | 17                     | 0                              | -17                    | 0.7%              | 0.0%                           | -0.7%                  |
|                                                | Non-Renewable Energy                           | 0                      | 18                             | 18                     | 0.0%              | 0.7%                           | 0.7%                   |
|                                                | Renewable Energy                               | 0                      | 3                              | 3                      | 0.0%              | 0.0%                           | 0.0%                   |
| Materials                                      | Materials                                      | 174                    | 174                            | 0                      | 6.3%              | 6.3%                           | 0.0%                   |
| Capital Goods                                  | Capital Goods                                  | 328                    | 328                            | 0                      | 15.2%             | 15.2%                          | 0.0%                   |
| Commercial & Professional Services             | Commercial & Professional Services             | 96                     | 100                            | 4                      | 3.0%              | 3.1%                           | 0.1%                   |
| Transportation                                 | Transportation                                 | 56                     | 56                             | 0                      | 4.3%              | 4.3%                           | 0.0%                   |
| Automobiles & Components                       | Automobiles & Components                       | 73                     | 73                             | 0                      | 8.0%              | 8.0%                           | 0.0%                   |
| Consumer Durables & Apparel                    | Consumer Durables & Apparel                    | 92                     | 92                             | 0                      | 5.8%              | 5.8%                           | 0.0%                   |
| Consumer Services                              | Consumer Services                              | 94                     | 94                             | 0                      | 1.5%              | 1.5%                           | 0.0%                   |
| Retailing                                      | Consumer Discretionary Distribution & Retail   | 96                     | 96                             | 0                      | 2.6%              | 2.6%                           | 0.0%                   |
| Food & Staples Retailing                       | Consumer Staples Distribution & Retail         | 55                     | 55                             | 0                      | 2.1%              | 2.1%                           | 0.0%                   |
| Food, Beverage & Tobacco                       | Food, Beverage & Tobacco                       | 66                     | 66                             | 0                      | 3.4%              | 3.4%                           | 0.0%                   |
| Household & Personal Products                  | Household & Personal Products                  | 23                     | 23                             | 0                      | 2.4%              | 2.4%                           | 0.0%                   |
| Health Care Equipment & Services               | Health Care Equipment & Services               | 52                     | 52                             | 0                      | 3.8%              | 3.8%                           | 0.0%                   |
| Pharmaceuticals, Biotechnology & Life Sciences | Pharmaceuticals, Biotechnology & Life Sciences | 37                     | 37                             | 0                      | 5.6%              | 5.6%                           | 0.0%                   |
| Banks                                          | Banks                                          | 75                     | 73                             | -2                     | 4.8%              | 4.7%                           | 0.0%                   |
| Diversified Financials                         | Financial Services                             | 50                     | 55                             | 5                      | 1.9%              | 2.1%                           | 0.1%                   |
| Insurance                                      | Insurance                                      | 9                      | 9                              | 0                      | 2.1%              | 2.1%                           | 0.0%                   |
| Software & Services                            | Software & Services                            | 125                    | 118                            | -7                     | 3.0%              | 2.8%                           | -0.2%                  |
| Technology Hardware & Equipment                | Technology Hardware & Equipment                | 122                    | 122                            | 0                      | 8.1%              | 8.1%                           | 0.0%                   |
| Semiconductors & Semiconductor Equipment       | Semiconductors & Semiconductor Equipment       | 33                     | 33                             | 0                      | 2.5%              | 2.5%                           | 0.0%                   |
| Telecommunication Services                     | Telecommunication Services                     | 17                     | 17                             | 0                      | 5.6%              | 5.6%                           | 0.0%                   |
| Media & Entertainment                          | Media & Entertainment                          | 91                     | 91                             | 0                      | 3.7%              | 3.7%                           | 0.0%                   |
| Utilities                                      | Utilities                                      | 21                     | 17                             | -4                     | 1.3%              | 1.2%                           | -0.1%                  |
| Real Estate                                    | Real Estate                                    | 46                     | 46                             | 0                      | 2.2%              | 2.2%                           | 0.0%                   |
|                                                | Equity Real Estate Investment Trusts (REITs)   | 0                      | 0                              | 0                      | 0.0%              | 0.0%                           | 0.0%                   |
| <b>Total</b>                                   | <b>Total</b>                                   | <b>1848</b>            | <b>1848</b>                    |                        | <b>100.0%</b>     | <b>100.0%</b>                  |                        |

Figures based on current GICS structure versus estimates based on proposed GICS structure change.

Source: S&P Dow Jones Indices LLC. Constituents for the S&P Global ex-Japan LargeMidCap Carbon Efficient Index and S&P/JPX Carbon Efficient Index based on reference date data for the March 19, 2021, rebalance. GICS industry group estimates for companies as of Jan. 21, 2022. The Global Industry Classification Standard (GICS) was developed by and is the exclusive property of MSCI and S&P DJI. "Global Industry Classification Standard (GICS)" is a service mark of MSCI and S&P DJI. Table is provided for illustrative purposes. Please note that all estimates in this research analysis should not be considered as final impacts to the indices even if the proposals are ultimately adopted. For details on the proposed GICS Structure change, please see [CONSULTATION ON POTENTIAL CHANGES TO THE GLOBAL IN 2022](#).

**Table 4a: Number of Constituents by Carbon Decile and GICS Industry Group for the S&P Global ex-Japan LargeMidCap Carbon Efficient Index**

| GICS INDUSTRY GROUP                            |                                                | NUMBER OF CONSTITUENTS,<br>CURRENT STRUCTURE |                                            |                                             | NUMBER OF CONSTITUENTS,<br>PROPOSED STRUCTURE<br>(ESTIMATES) |                                            |                                             |
|------------------------------------------------|------------------------------------------------|----------------------------------------------|--------------------------------------------|---------------------------------------------|--------------------------------------------------------------|--------------------------------------------|---------------------------------------------|
| Current GICS Structure                         | Proposed GICS Structure                        | 1 <sup>st</sup> -3 <sup>rd</sup><br>Decile   | 4 <sup>th</sup> -7 <sup>th</sup><br>Decile | 8 <sup>th</sup> -10 <sup>th</sup><br>Decile | 1 <sup>st</sup> -3 <sup>rd</sup><br>Decile                   | 4 <sup>th</sup> -7 <sup>th</sup><br>Decile | 8 <sup>th</sup> -10 <sup>th</sup><br>Decile |
| Energy                                         |                                                | 29                                           | 42                                         | 31                                          | 0                                                            | 0                                          | 0                                           |
|                                                | Non-Renewable Energy                           | 0                                            | 0                                          | 0                                           | 32                                                           | 53                                         | 32                                          |
|                                                | Renewable Energy                               | 0                                            | 0                                          | 0                                           | 5                                                            | 7                                          | 6                                           |
| Materials                                      | Materials                                      | 55                                           | 87                                         | 66                                          | 55                                                           | 86                                         | 67                                          |
| Capital Goods                                  | Capital Goods                                  | 61                                           | 72                                         | 50                                          | 60                                                           | 70                                         | 49                                          |
| Commercial & Professional Services             | Commercial & Professional Services             | 10                                           | 11                                         | 11                                          | 11                                                           | 14                                         | 12                                          |
| Transportation                                 | Transportation                                 | 24                                           | 28                                         | 31                                          | 24                                                           | 28                                         | 31                                          |
| Automobiles & Components                       | Automobiles & Components                       | 20                                           | 22                                         | 14                                          | 20                                                           | 22                                         | 14                                          |
| Consumer Durables & Apparel                    | Consumer Durables & Apparel                    | 17                                           | 21                                         | 17                                          | 17                                                           | 21                                         | 17                                          |
| Consumer Services                              | Consumer Services                              | 13                                           | 14                                         | 14                                          | 14                                                           | 16                                         | 15                                          |
| Retailing                                      | Consumer Discretionary Distribution & Retail   | 24                                           | 26                                         | 22                                          | 23                                                           | 24                                         | 20                                          |
| Food & Staples Retailing                       | Consumer Staples Distribution & Retail         | 16                                           | 12                                         | 16                                          | 16                                                           | 14                                         | 17                                          |
| Food, Beverage & Tobacco                       | Food, Beverage & Tobacco                       | 35                                           | 38                                         | 35                                          | 35                                                           | 38                                         | 35                                          |
| Household & Personal Products                  | Household & Personal Products                  | 9                                            | 10                                         | 10                                          | 9                                                            | 10                                         | 10                                          |
| Health Care Equipment & Services               | Health Care Equipment & Services               | 24                                           | 32                                         | 23                                          | 24                                                           | 32                                         | 23                                          |
| Pharmaceuticals, Biotechnology & Life Sciences | Pharmaceuticals, Biotechnology & Life Sciences | 28                                           | 43                                         | 33                                          | 28                                                           | 43                                         | 33                                          |
| Banks                                          | Banks                                          | 56                                           | 71                                         | 62                                          | 56                                                           | 70                                         | 62                                          |
| Diversified Financials                         | Financial Services                             | 34                                           | 43                                         | 29                                          | 39                                                           | 50                                         | 35                                          |
| Insurance                                      | Insurance                                      | 29                                           | 35                                         | 28                                          | 29                                                           | 35                                         | 28                                          |
| Software & Services                            | Software & Services                            | 25                                           | 39                                         | 26                                          | 21                                                           | 24                                         | 21                                          |
| Technology Hardware & Equipment                | Technology Hardware & Equipment                | 29                                           | 32                                         | 29                                          | 29                                                           | 32                                         | 29                                          |
| Semiconductors & Semiconductor Equipment       | Semiconductors & Semiconductor Equipment       | 14                                           | 24                                         | 17                                          | 14                                                           | 23                                         | 16                                          |
| Telecommunication Services                     | Telecommunication Services                     | 20                                           | 31                                         | 22                                          | 20                                                           | 31                                         | 22                                          |
| Media & Entertainment                          | Media & Entertainment                          | 25                                           | 28                                         | 24                                          | 25                                                           | 28                                         | 24                                          |
| Utilities                                      | Utilities                                      | 37                                           | 50                                         | 42                                          | 29                                                           | 39                                         | 34                                          |
| Real Estate                                    | Real Estate                                    | 42                                           | 48                                         | 32                                          | 21                                                           | 28                                         | 22                                          |
|                                                | Equity Real Estate Investment Trusts (REITs)   | 0                                            | 0                                          | 0                                           | 19                                                           | 19                                         | 13                                          |
| <b>Total</b>                                   | <b>Total</b>                                   | <b>676</b>                                   | <b>859</b>                                 | <b>684</b>                                  | <b>675</b>                                                   | <b>857</b>                                 | <b>687</b>                                  |

Figures based on current GICS structure versus estimates based on proposed GICS structure change.

Source: S&P Dow Jones Indices LLC. Constituents and index weight for the S&P Global ex-Japan LargeMidCap Carbon Efficient Index and S&P/JPX Carbon Efficient Index based on reference date data for the March 19, 2021, rebalance. GICS industry group estimates for companies as of Jan. 21, 2022. Companies with no carbon intensity are not shown in the table. The Global Industry Classification Standard (GICS) was developed by and is the exclusive property of MSCI and S&P DJI. "Global Industry Classification Standard (GICS)" is a service mark of MSCI and S&P DJI. Please note that all estimates in this research analysis should not be considered as final impacts to the indices even if the proposals are ultimately adopted. Table is provided for illustrative purposes. For details on the proposed GICS Structure change, please see [CONSULTATION ON POTENTIAL CHANGES TO THE GLOBAL IN 2022](#).

**Table 4b: Number of Constituents by Carbon Decile and GICS Industry Group for the S&P/JPX Carbon Efficient Index**

| GICS INDUSTRY GROUP                            |                                                | NUMBER OF CONSTITUENTS,<br>CURRENT STRUCTURE |                                            |                                             | NUMBER OF CONSTITUENTS,<br>PROPOSED STRUCTURE<br>(ESTIMATES) |                                            |                                             |
|------------------------------------------------|------------------------------------------------|----------------------------------------------|--------------------------------------------|---------------------------------------------|--------------------------------------------------------------|--------------------------------------------|---------------------------------------------|
| Current GICS Structure                         | Proposed GICS Structure                        | 1 <sup>st</sup> -3 <sup>rd</sup><br>Decile   | 4 <sup>th</sup> -7 <sup>th</sup><br>Decile | 8 <sup>th</sup> -10 <sup>th</sup><br>Decile | 1 <sup>st</sup> -3 <sup>rd</sup><br>Decile                   | 4 <sup>th</sup> -7 <sup>th</sup><br>Decile | 8 <sup>th</sup> -10 <sup>th</sup><br>Decile |
| Energy                                         |                                                | 12                                           | 4                                          | 1                                           | 0                                                            | 0                                          | 0                                           |
|                                                | Non-Renewable Energy                           | 0                                            | 0                                          | 0                                           | 12                                                           | 4                                          | 2                                           |
|                                                | Renewable Energy                               | 0                                            | 0                                          | 0                                           | 0                                                            | 1                                          | 2                                           |
| Materials                                      | Materials                                      | 99                                           | 62                                         | 12                                          | 99                                                           | 62                                         | 12                                          |
| Capital Goods                                  | Capital Goods                                  | 62                                           | 168                                        | 97                                          | 63                                                           | 167                                        | 97                                          |
| Commercial & Professional Services             | Commercial & Professional Services             | 32                                           | 33                                         | 27                                          | 29                                                           | 37                                         | 30                                          |
| Transportation                                 | Transportation                                 | 21                                           | 26                                         | 9                                           | 21                                                           | 26                                         | 9                                           |
| Automobiles & Components                       | Automobiles & Components                       | 6                                            | 46                                         | 21                                          | 6                                                            | 46                                         | 21                                          |
| Consumer Durables & Apparel                    | Consumer Durables & Apparel                    | 8                                            | 56                                         | 27                                          | 8                                                            | 56                                         | 27                                          |
| Consumer Services                              | Consumer Services                              | 24                                           | 52                                         | 12                                          | 20                                                           | 56                                         | 12                                          |
| Retailing                                      | Consumer Discretionary Distribution & Retail   | 14                                           | 36                                         | 43                                          | 14                                                           | 33                                         | 46                                          |
| Food & Staples Retailing                       | Consumer Staples Distribution & Retail         | 7                                            | 37                                         | 11                                          | 7                                                            | 37                                         | 11                                          |
| Food, Beverage & Tobacco                       | Food, Beverage & Tobacco                       | 8                                            | 31                                         | 26                                          | 8                                                            | 31                                         | 26                                          |
| Household & Personal Products                  | Household & Personal Products                  | 5                                            | 14                                         | 3                                           | 5                                                            | 14                                         | 3                                           |
| Health Care Equipment & Services               | Health Care Equipment & Services               | 12                                           | 19                                         | 20                                          | 12                                                           | 19                                         | 20                                          |
| Pharmaceuticals, Biotechnology & Life Sciences | Pharmaceuticals, Biotechnology & Life Sciences | 12                                           | 18                                         | 7                                           | 12                                                           | 18                                         | 7                                           |
| Banks                                          | Banks                                          | 43                                           | 25                                         | 7                                           | 42                                                           | 25                                         | 6                                           |
| Diversified Financials                         | Financial Services                             | 6                                            | 29                                         | 15                                          | 7                                                            | 32                                         | 16                                          |
| Insurance                                      | Insurance                                      | 1                                            | 3                                          | 5                                           | 1                                                            | 3                                          | 5                                           |
| Software & Services                            | Software & Services                            | 13                                           | 73                                         | 35                                          | 13                                                           | 84                                         | 17                                          |
| Technology Hardware & Equipment                | Technology Hardware & Equipment                | 29                                           | 50                                         | 43                                          | 29                                                           | 50                                         | 43                                          |
| Semiconductors & Semiconductor Equipment       | Semiconductors & Semiconductor Equipment       | 11                                           | 18                                         | 4                                           | 11                                                           | 17                                         | 5                                           |
| Telecommunication Services                     | Telecommunication Services                     | 8                                            | 8                                          | 0                                           | 8                                                            | 8                                          | 0                                           |
| Media & Entertainment                          | Media & Entertainment                          | 20                                           | 30                                         | 37                                          | 20                                                           | 30                                         | 37                                          |
| Utilities                                      | Utilities                                      | 5                                            | 11                                         | 5                                           | 4                                                            | 10                                         | 3                                           |
| Real Estate                                    | Real Estate                                    | 13                                           | 30                                         | 2                                           | 10                                                           | 30                                         | 5                                           |
|                                                | Equity Real Estate Investment Trusts (REITs)   | 0                                            | 0                                          | 0                                           | 0                                                            | 0                                          | 0                                           |
| <b>Total</b>                                   | <b>Total</b>                                   | <b>471</b>                                   | <b>879</b>                                 | <b>469</b>                                  | <b>461</b>                                                   | <b>896</b>                                 | <b>462</b>                                  |

Figures based on current GICS structure versus estimates based on proposed GICS structure change.

Source: S&P Dow Jones Indices LLC. Constituents and index weight for the S&P Global ex-Japan LargeMidCap Carbon Efficient Index and S&P/JPX Carbon Efficient Index based on reference date data for the March 19, 2021, rebalance. GICS industry group estimates for companies as of Jan. 21, 2022. Companies with no carbon intensity are not shown in the table. The Global Industry Classification Standard (GICS) was developed by and is the exclusive property of MSCI and S&P DJI. "Global Industry Classification Standard (GICS)" is a service mark of MSCI and S&P DJI. Please note that all estimates in this research analysis should not be considered as final impacts to the indices even if the proposals are ultimately adopted. Table is provided for illustrative purposes. For details on the proposed GICS Structure change, please see [CONSULTATION ON POTENTIAL CHANGES TO THE GLOBAL IN 2022](#).

**Table 5a: Weight of Constituents by Carbon Decile and GICS Industry Group for the S&P Global ex-Japan LargeMidCap Carbon Efficient Index**

| GICS Industry Group                            |                                                | Index Weight,<br>Current Structure         |                                            |                                             | Index Weight,<br>Proposed Structure (Estimates) |                                            |                                             |
|------------------------------------------------|------------------------------------------------|--------------------------------------------|--------------------------------------------|---------------------------------------------|-------------------------------------------------|--------------------------------------------|---------------------------------------------|
| Current GICS Structure                         | Proposed GICS Structure                        | 1 <sup>st</sup> -3 <sup>rd</sup><br>Decile | 4 <sup>th</sup> -7 <sup>th</sup><br>Decile | 8 <sup>th</sup> -10 <sup>th</sup><br>Decile | 1 <sup>st</sup> -3 <sup>rd</sup><br>Decile      | 4 <sup>th</sup> -7 <sup>th</sup><br>Decile | 8 <sup>th</sup> -10 <sup>th</sup><br>Decile |
| Energy                                         |                                                | 1.1%                                       | 2.0%                                       | 0.2%                                        | 0.0%                                            | 0.0%                                       | 0.0%                                        |
|                                                | Non-Renewable Energy                           | 0.0%                                       | 0.0%                                       | 0.0%                                        | 1.5%                                            | 1.8%                                       | 0.2%                                        |
|                                                | Renewable Energy                               | 0.0%                                       | 0.0%                                       | 0.0%                                        | 0.1%                                            | 0.2%                                       | 0.0%                                        |
| Materials                                      | Materials                                      | 3.2%                                       | 1.4%                                       | 0.1%                                        | 3.2%                                            | 1.4%                                       | 0.0%                                        |
| Capital Goods                                  | Capital Goods                                  | 2.8%                                       | 2.4%                                       | 0.4%                                        | 2.6%                                            | 2.4%                                       | 0.4%                                        |
| Commercial & Professional Services             | Commercial & Professional Services             | 0.5%                                       | 0.3%                                       | 0.2%                                        | 0.7%                                            | 0.3%                                       | 0.2%                                        |
| Transportation                                 | Transportation                                 | 0.5%                                       | 1.4%                                       | 0.2%                                        | 0.5%                                            | 1.4%                                       | 0.2%                                        |
| Automobiles & Components                       | Automobiles & Components                       | 1.7%                                       | 0.5%                                       | 0.1%                                        | 1.7%                                            | 0.5%                                       | 0.1%                                        |
| Consumer Durables & Apparel                    | Consumer Durables & Apparel                    | 1.3%                                       | 0.3%                                       | 0.1%                                        | 1.3%                                            | 0.3%                                       | 0.1%                                        |
| Consumer Services                              | Consumer Services                              | 0.8%                                       | 0.5%                                       | 0.1%                                        | 1.4%                                            | 0.5%                                       | 0.1%                                        |
| Retailing                                      | Consumer Discretionary Distribution & Retail   | 1.9%                                       | 4.6%                                       | 0.3%                                        | 1.4%                                            | 4.3%                                       | 0.3%                                        |
| Food & Staples Retailing                       | Consumer Staples Distribution & Retail         | 1.0%                                       | 0.2%                                       | 0.1%                                        | 1.0%                                            | 0.4%                                       | 0.1%                                        |
| Food, Beverage & Tobacco                       | Food, Beverage & Tobacco                       | 2.7%                                       | 0.9%                                       | 0.1%                                        | 2.7%                                            | 0.9%                                       | 0.1%                                        |
| Household & Personal Products                  | Household & Personal Products                  | 0.5%                                       | 0.3%                                       | 1.0%                                        | 0.5%                                            | 0.3%                                       | 1.0%                                        |
| Health Care Equipment & Services               | Health Care Equipment & Services               | 2.1%                                       | 1.4%                                       | 0.8%                                        | 2.1%                                            | 1.4%                                       | 0.8%                                        |
| Pharmaceuticals, Biotechnology & Life Sciences | Pharmaceuticals, Biotechnology & Life Sciences | 4.7%                                       | 1.9%                                       | 0.3%                                        | 4.7%                                            | 1.9%                                       | 0.3%                                        |
| Banks                                          | Banks                                          | 1.4%                                       | 4.4%                                       | 1.2%                                        | 1.4%                                            | 4.3%                                       | 1.2%                                        |
| Diversified Financials                         | Financial Services                             | 1.4%                                       | 1.6%                                       | 1.3%                                        | 3.0%                                            | 2.5%                                       | 1.6%                                        |
| Insurance                                      | Insurance                                      | 1.3%                                       | 0.8%                                       | 0.7%                                        | 1.3%                                            | 0.8%                                       | 0.7%                                        |
| Software & Services                            | Software & Services                            | 4.1%                                       | 2.2%                                       | 4.6%                                        | 2.0%                                            | 1.3%                                       | 4.6%                                        |
| Technology Hardware & Equipment                | Technology Hardware & Equipment                | 5.1%                                       | 0.5%                                       | 0.8%                                        | 5.1%                                            | 0.5%                                       | 0.8%                                        |
| Semiconductors & Semiconductor Equipment       | Semiconductors & Semiconductor Equipment       | 3.0%                                       | 1.9%                                       | 0.2%                                        | 3.0%                                            | 1.9%                                       | 0.2%                                        |
| Telecommunication Services                     | Telecommunication Services                     | 0.3%                                       | 1.5%                                       | 0.1%                                        | 0.3%                                            | 1.5%                                       | 0.1%                                        |
| Media & Entertainment                          | Media & Entertainment                          | 1.2%                                       | 1.9%                                       | 4.9%                                        | 1.2%                                            | 1.9%                                       | 4.9%                                        |
| Utilities                                      | Utilities                                      | 0.8%                                       | 1.7%                                       | 0.3%                                        | 0.8%                                            | 1.4%                                       | 0.4%                                        |
| Real Estate                                    | Real Estate                                    | 1.4%                                       | 0.5%                                       | 0.4%                                        | 0.4%                                            | 0.1%                                       | 0.1%                                        |
|                                                | Equity Real Estate Investment Trusts (REITs)   | 0.0%                                       | 0.0%                                       | 0.0%                                        | 1.0%                                            | 0.4%                                       | 0.3%                                        |
| <b>Total</b>                                   | <b>Total</b>                                   | <b>44.9%</b>                               | <b>35.1%</b>                               | <b>18.6%</b>                                | <b>45.0%</b>                                    | <b>34.6%</b>                               | <b>18.9%</b>                                |

Figures based on current GICS structure versus estimates based on proposed GICS structure change.

Source: S&P Dow Jones Indices LLC. Constituents and index weight for the S&P Global ex-Japan LargeMidCap Carbon Efficient Index and S&P/JPX Carbon Efficient Index based on reference date data for the March 19, 2021, rebalance. GICS industry group estimates for companies as of Jan. 21, 2022. Companies with no carbon intensity are not shown in the table. The Global Industry Classification Standard (GICS) was developed by and is the exclusive property of MSCI and S&P DJI. "Global Industry Classification Standard (GICS)" is a service mark of MSCI and S&P DJI. Please note that all estimates in this research analysis should not be considered as final impacts to the indices even if the proposals are ultimately adopted. Table is provided for illustrative purposes. For details on the proposed GICS Structure change, please see [CONSULTATION ON POTENTIAL CHANGES TO THE GLOBAL IN 2022](#).

**Table 5b: Weight of Constituents by Carbon Decile and GICS Industry Group for the S&P/JPX Carbon Efficient Index**

| GICS INDUSTRY GROUP                            |                                                | INDEX WEIGHT,<br>CURRENT STRUCTURE         |                                            |                                             | INDEX WEIGHT,<br>PROPOSED STRUCTURE<br>(ESTIMATES) |                                            |                                             |
|------------------------------------------------|------------------------------------------------|--------------------------------------------|--------------------------------------------|---------------------------------------------|----------------------------------------------------|--------------------------------------------|---------------------------------------------|
| Current GICS Structure                         | Proposed GICS Structure                        | 1 <sup>st</sup> -3 <sup>rd</sup><br>Decile | 4 <sup>th</sup> -7 <sup>th</sup><br>Decile | 8 <sup>th</sup> -10 <sup>th</sup><br>Decile | 1 <sup>st</sup> -3 <sup>rd</sup><br>Decile         | 4 <sup>th</sup> -7 <sup>th</sup><br>Decile | 8 <sup>th</sup> -10 <sup>th</sup><br>Decile |
| Energy                                         | Non-Renewable Energy                           | 0.0%                                       | 0.0%                                       | 0.0%                                        | 0.5%                                               | 0.2%                                       | 0.0%                                        |
|                                                | Renewable Energy                               | 0.0%                                       | 0.0%                                       | 0.0%                                        | 0.0%                                               | 0.0%                                       | 0.0%                                        |
| Materials                                      | Materials                                      | 3.8%                                       | 2.2%                                       | 0.4%                                        | 3.8%                                               | 2.2%                                       | 0.4%                                        |
| Capital Goods                                  | Capital Goods                                  | 2.5%                                       | 6.2%                                       | 6.5%                                        | 2.5%                                               | 6.2%                                       | 6.5%                                        |
| Commercial & Professional Services             | Commercial & Professional Services             | 2.1%                                       | 0.6%                                       | 0.3%                                        | 2.6%                                               | 0.5%                                       | 0.0%                                        |
| Transportation                                 | Transportation                                 | 1.4%                                       | 2.4%                                       | 0.5%                                        | 1.4%                                               | 2.4%                                       | 0.5%                                        |
| Automobiles & Components                       | Automobiles & Components                       | 4.5%                                       | 3.1%                                       | 0.4%                                        | 4.5%                                               | 3.1%                                       | 0.4%                                        |
| Consumer Durables & Apparel                    | Consumer Durables & Apparel                    | 4.5%                                       | 1.0%                                       | 0.3%                                        | 4.5%                                               | 1.0%                                       | 0.3%                                        |
| Consumer Services                              | Consumer Services                              | 1.0%                                       | 0.5%                                       | 0.0%                                        | 0.9%                                               | 0.5%                                       | 0.0%                                        |
| Retailing                                      | Consumer Discretionary Distribution & Retail   | 0.5%                                       | 1.5%                                       | 0.6%                                        | 0.5%                                               | 1.3%                                       | 0.7%                                        |
| Food & Staples Retailing                       | Consumer Staples Distribution & Retail         | 0.1%                                       | 1.9%                                       | 0.1%                                        | 0.1%                                               | 1.9%                                       | 0.1%                                        |
| Food, Beverage & Tobacco                       | Food, Beverage & Tobacco                       | 1.5%                                       | 1.7%                                       | 0.1%                                        | 1.5%                                               | 1.7%                                       | 0.1%                                        |
| Household & Personal Products                  | Household & Personal Products                  | 1.1%                                       | 1.3%                                       | 0.1%                                        | 1.1%                                               | 1.3%                                       | 0.1%                                        |
| Health Care Equipment & Services               | Health Care Equipment & Services               | 1.2%                                       | 0.9%                                       | 1.7%                                        | 1.2%                                               | 0.9%                                       | 1.7%                                        |
| Pharmaceuticals, Biotechnology & Life Sciences | Pharmaceuticals, Biotechnology & Life Sciences | 5.0%                                       | 0.6%                                       | 0.1%                                        | 5.0%                                               | 0.6%                                       | 0.1%                                        |
| Banks                                          | Banks                                          | 0.8%                                       | 3.1%                                       | 0.9%                                        | 0.8%                                               | 3.1%                                       | 0.9%                                        |
| Diversified Financials                         | Financial Services                             | 0.4%                                       | 0.6%                                       | 0.9%                                        | 0.4%                                               | 0.7%                                       | 0.9%                                        |
| Insurance                                      | Insurance                                      | 0.3%                                       | 0.6%                                       | 1.2%                                        | 0.3%                                               | 0.6%                                       | 1.2%                                        |
| Software & Services                            | Software & Services                            | 0.4%                                       | 0.9%                                       | 1.7%                                        | 0.4%                                               | 1.1%                                       | 1.3%                                        |
| Technology Hardware & Equipment                | Technology Hardware & Equipment                | 1.0%                                       | 4.1%                                       | 3.0%                                        | 1.0%                                               | 4.1%                                       | 3.0%                                        |
| Semiconductors & Semiconductor Equipment       | Semiconductors & Semiconductor Equipment       | 2.1%                                       | 0.4%                                       | 0.0%                                        | 2.1%                                               | 0.4%                                       | 0.0%                                        |
| Telecommunication Services                     | Telecommunication Services                     | 1.2%                                       | 3.9%                                       | 0.0%                                        | 1.2%                                               | 3.9%                                       | 0.0%                                        |
| Media & Entertainment                          | Media & Entertainment                          | 0.8%                                       | 1.0%                                       | 1.8%                                        | 0.8%                                               | 1.0%                                       | 1.8%                                        |
| Utilities                                      | Utilities                                      | 0.5%                                       | 0.8%                                       | 0.0%                                        | 0.5%                                               | 0.7%                                       | 0.0%                                        |
| Real Estate                                    | Real Estate                                    | 1.4%                                       | 0.8%                                       | 0.0%                                        | 1.4%                                               | 0.8%                                       | 0.1%                                        |
|                                                | Equity Real Estate Investment Trusts (REITs)   | 0.0%                                       | 0.0%                                       | 0.0%                                        | 0.0%                                               | 0.0%                                       | 0.0%                                        |
| <b>Total</b>                                   | <b>Total</b>                                   | <b>38.7%</b>                               | <b>40.2%</b>                               | <b>20.6%</b>                                | <b>39.1%</b>                                       | <b>40.3%</b>                               | <b>20.0%</b>                                |

Figures based on current GICS structure versus estimates based on proposed GICS structure change.

Source: S&P Dow Jones Indices LLC. Constituents and index weight for the S&P Global ex-Japan LargeMidCap Carbon Efficient Index and S&P/JPX Carbon Efficient Index based on reference date data for the March 19, 2021, rebalance. GICS industry group estimates for companies as of Jan. 21, 2022. Companies with no carbon intensity are not shown in the table. The Global Industry Classification Standard (GICS) was developed by and is the exclusive property of MSCI and S&P DJI. "Global Industry Classification Standard (GICS)" is a service mark of MSCI and S&P DJI. Please note that all estimates in this research analysis should not be considered as final impacts to the indices even if the proposals are ultimately adopted. Table is provided for illustrative purposes. For details on the proposed GICS Structure change, please see [CONSULTATION ON POTENTIAL CHANGES TO THE GLOBAL IN 2022](#).

**Table 6: Weighted Average Carbon Intensity of the S&P Global ex-Japan LargeMidCap Carbon Efficient Index and S&P/JPX Carbon Efficient Index**

| GICS INDUSTRY GROUP                            |                                                | WEIGHTED-AVERAGE CARBON INTENSITY (WACI) REDUCTION<br>VERSUS BENCHMARK INDEX |                                      |                                   |                                      |
|------------------------------------------------|------------------------------------------------|------------------------------------------------------------------------------|--------------------------------------|-----------------------------------|--------------------------------------|
|                                                |                                                | S&P GLOBAL EX-JAPAN<br>LARGEMIDCAP CARBON<br>EFFICIENT INDEX                 |                                      | S&P/JPX<br>CARBON EFFICIENT INDEX |                                      |
| Current GICS Structure                         | Proposed GICS<br>Structure                     | Current<br>Structure                                                         | Proposed<br>Structure<br>(Estimates) | Current<br>Structure              | Proposed<br>Structure<br>(Estimates) |
| Energy                                         |                                                | 27.4%                                                                        |                                      | 8.3%                              |                                      |
|                                                | Non-Renewable Energy                           |                                                                              | 39.0%                                |                                   | 42.3%                                |
|                                                | Renewable Energy                               |                                                                              | 42.5%                                |                                   | 73.4%                                |
| Materials                                      | Materials                                      | 65.7%                                                                        | 66.1%                                | 17.1%                             | 17.2%                                |
| Capital Goods                                  | Capital Goods                                  | 27.7%                                                                        | 27.2%                                | 6.5%                              | 6.5%                                 |
| Commercial & Professional Services             | Commercial & Professional Services             | 35.2%                                                                        | 43.6%                                | 21.3%                             | 56.3%                                |
| Transportation                                 | Transportation                                 | 26.7%                                                                        | 26.7%                                | 18.9%                             | 18.9%                                |
| Automobiles & Components                       | Automobiles & Components                       | 5.4%                                                                         | 5.4%                                 | 19.2%                             | 19.2%                                |
| Consumer Durables & Apparel                    | Consumer Durables & Apparel                    | 9.1%                                                                         | 9.1%                                 | 28.9%                             | 28.9%                                |
| Consumer Services                              | Consumer Services                              | 45.1%                                                                        | 56.7%                                | 9.6%                              | 9.1%                                 |
| Retailing                                      | Consumer Discretionary Distribution & Retail   | 8.8%                                                                         | 7.0%                                 | 3.8%                              | 3.7%                                 |
| Food & Staples Retailing                       | Consumer Staples Distribution & Retail         | 10.7%                                                                        | 8.2%                                 | 3.0%                              | 3.0%                                 |
| Food, Beverage & Tobacco                       | Food, Beverage & Tobacco                       | 39.0%                                                                        | 39.0%                                | 38.5%                             | 38.5%                                |
| Household & Personal Products                  | Household & Personal Products                  | 9.8%                                                                         | 9.8%                                 | 21.8%                             | 21.8%                                |
| Health Care Equipment & Services               | Health Care Equipment & Services               | 15.8%                                                                        | 15.9%                                | 4.8%                              | 4.8%                                 |
| Pharmaceuticals, Biotechnology & Life Sciences | Pharmaceuticals, Biotechnology & Life Sciences | 10.8%                                                                        | 10.8%                                | 13.1%                             | 13.1%                                |
| Banks                                          | Banks                                          | 9.8%                                                                         | 9.9%                                 | 2.2%                              | 2.1%                                 |
| Diversified Financials                         | Financial Services                             | 14.1%                                                                        | 16.5%                                | 5.0%                              | 4.8%                                 |
| Insurance                                      | Insurance                                      | 10.8%                                                                        | 10.8%                                | 4.1%                              | 4.1%                                 |
| Software & Services                            | Software & Services                            | 6.2%                                                                         | 4.7%                                 | 3.0%                              | 2.7%                                 |
| Technology Hardware & Equipment                | Technology Hardware & Equipment                | 13.6%                                                                        | 13.6%                                | 5.1%                              | 5.1%                                 |
| Semiconductors & Semiconductor Equipment       | Semiconductors & Semiconductor Equipment       | 37.7%                                                                        | 35.8%                                | 36.7%                             | 38.3%                                |
| Telecommunication Services                     | Telecommunication Services                     | 10.3%                                                                        | 10.4%                                | 4.3%                              | 4.3%                                 |
| Media & Entertainment                          | Media & Entertainment                          | 3.5%                                                                         | 3.5%                                 | 9.8%                              | 9.8%                                 |
| Utilities                                      | Utilities                                      | 43.7%                                                                        | 43.2%                                | 30.5%                             | 32.1%                                |
| Real Estate                                    | Real Estate                                    | 32.5%                                                                        | 32.4%                                | 24.1%                             | 18.9%                                |
|                                                | Equity Real Estate Investment Trusts (REITs)   |                                                                              | 32.7%                                |                                   |                                      |
| <b>Total</b>                                   | <b>Total</b>                                   | <b>40.1%</b>                                                                 | <b>41.5%</b>                         | <b>18.1%</b>                      | <b>19.5%</b>                         |

Figures based on current GICS structure versus estimates based on proposed GICS structure change.  
Source: S&P Dow Jones Indices LLC. Constituents and index weight for the S&P Global ex-Japan LargeMidCap Carbon Efficient Index and S&P/JPX Carbon Efficient Index based on reference date data for the March 19, 2021, rebalance. GICS industry group estimates for companies as of Jan. 21, 2022. Companies with no carbon intensity are not shown in the table. The Global Industry Classification Standard (GICS) was developed by and is the exclusive property of MSCI and S&P DJI. "Global Industry Classification Standard (GICS)" is a service mark of MSCI and S&P DJI. Please note that all estimates in this research analysis should not be considered as final impacts to the indices even if the proposals are ultimately adopted. Table is provided for illustrative purposes. For details on the proposed GICS Structure change, please see [CONSULTATION ON POTENTIAL CHANGES TO THE GLOBAL IN 2022](#).



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