

**Calvert Issue Brief**

# Clearing the Air: How Transparency Can Help Investors Understand GHG Emissions Externalities

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**Key Takeaways:**

- Achieving “net zero” greenhouse gas emissions (GHG) by 2050 requires a new level of transparency in how companies account for the emissions associated with their business, according to a new study by Signal Climate Analytics.
- This report summarizes the Signal study, which ranks 250 of the largest global carbon emitters for transparency. It finds that most companies are providing some form of accounting transparency but fall short of full clarity. For example, there is a disconnect between supply and demand sides of the energy value chain.
- Regulation and public scrutiny make a difference to target setting transparency. Utilities make up 43% of the top 30 companies for transparency, and seven out of the top 10 utilities are European. The bottom 20 are dominated by state-owned enterprises (SOEs) and private companies, and have virtually no transparency.
- High transparency scores don't necessarily translate to decarbonization—action is still required.

### Introduction of 'The Calvert Center-Climate Signal Reports'

"Clearing the Air: How Transparency Can Help Investors Understand GHG Emissions Externalities" is the first in a series of papers by the newly formed Calvert Center for Responsible Investing. The series presents the original research of Signal Climate Analytics, offering investment perspective and context for the science.

Signal is a fundamental research and analytics group at the forefront of systems-level strategic analysis. Signal's expertise integrates data drawn from ESG, industrial benchmarking and financial sources, based on proprietary algorithms and metrics. Signal's research is done with the support of the Calvert Center.

The Calvert Center for Responsible Investing seeks to drive positive change through innovation and education. The Center's mission continues—and builds on—Calvert's decades-old tradition of leveraging relationships with leading academic and research

institutions to generate groundbreaking analysis on environmental, social and governance issues.

This paper summarizes and analyzes Signal's first report in the series, "Through the Looking Glass: Assessing 250 of the Largest Carbon Emitters for Transparency." Copies are available on the Calvert Center for Responsible Investing website. The Signal report examines the state-of-the-art in emissions reduction at the world's most important companies and identifies leaders and laggards in pursuit of "net zero" greenhouse gas emissions (GHG) by 2050. These 250 companies are responsible for approximately one-third of annual human-sourced GHG emissions.

Subsequent reports will reveal the extent to which these same companies are following through on their net zero plans, if any, by actually decarbonizing. The stakes for investors—and the planet's future—couldn't be higher.

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### Emissions Transparency: The Vital Role of Investors

Accurate disclosure of material risk is the lifeblood of financial information and is crucial for the operation of efficient markets. The Signal report summarized below acknowledges that substantial progress has been made over the past few years in disclosing—and controlling—risks tied to emissions, both through voluntary and regulatory action.

One need only look to the headlines of summer 2022, when the EPA gained authority in the U.S. to regulate greenhouse gases, and California mandated the phase-out of new gas-powered cars. The International Financial Reporting Standards Board (IFRSB) recently established the International Sustainability Standards Board (ISSB). The E.U. and U.K. have been ahead of the curve in adopting such standards, paving the way for increased reporting. In the U.S., the Securities and Exchange Commission (SEC) is expected to announce new proposals that focus on disclosure of material risks and strategic implications, GHG emissions, and targets or transition planning.

But as the Signal report documents, emissions transparency still falls short of the financial disclosure quality standard that has emerged over the decades: 20th century disclosure no longer captures key 21st century risks.

For example, investors need the appropriate metrics to assess the impact of climate change on portfolio holdings, and whether business models are aligned with the top-down climate ambitions of a growing number of countries. In evaluating a company, investors would like to know if its assets are physically vulnerable, the volume of greenhouse gases it emits, and what its plans are for lowering emissions. Even with transparency, lack of standardization is a huge problem that must be overcome if corporate emissions are to be compared, benchmarked, and tracked in any meaningful way.

Through engagement, investors can be powerful advocates for change in this area. Consider, for example, Signal's finding that 95% of publicly listed companies in this study disclose emissions data, compared with just 32% of private companies. This suggests that public awareness can be a big catalyst, and that it would be fruitful for institutional investors to engage companies on the importance of emissions disclosure.

Calvert believes that this can be an historic win-win scenario for investors and issuers. Improved emissions transparency gives investors better tools for identifying emerging opportunities and controlling financially material risks, while helping accelerate the world's transition to a low-carbon economy.

Summary and Analysis:

**Through the Looking Glass: Assessing 250 of the Largest Carbon Emitters for Transparency**

**Executive Summary**

Achieving “net zero” greenhouse gas emissions (GHG) by 2050 stands as an urgent requirement for holding global warming below 1.5° C, as envisioned by the 2015 Paris Agreement, which was endorsed by 196 countries. Moreover, net-zero emission targets now cover 90% of the global economy, in our estimate, as more and more countries have come to adopt them.

But getting from today’s status quo to net zero in 2050 requires a new level of transparency for companies. Signal observes that most companies have not moved through all the steps necessary to provide full clarity. It argues that targets need to be based on the right emissions metric—the keystone metric—and provide transparency over the critical variables informing their emissions pathway. These efforts are vital to give investors and other stakeholders the means to monitor—and advocate for—progress in emission reduction.

The 30-page report develops a solid baseline for corporate decarbonization initiatives. The study ranks 250 of the largest public and private carbon emitters in the world for transparency, starting with company reported data. Signal collects all target, emissions, and associated data for the universe of companies, including privately owned and government entities. It then describes and employs its unique methodology to calculate transparency scores.

Signal’s Transparency Score ranking reveals significant variance in disclosure and target setting among companies in the universe. The report also provides transparency rankings for the oil and gas, automotive and utilities sectors, which allow for comparisons between companies in the same sector.

Lastly, in its four key findings, Signal notes:

- A low level of transparency exists beneath the surface—specificity is often lacking around key data, such as the intended use of carbon offsets instead of real emissions cuts.
- A disconnect persists between supply and demand sides of the “energy value chain.” Energy producers significantly lag behind their principal customers, electric utilities and automotive, in their emissions target setting.
- Regulation and public scrutiny make a difference to target setting transparency across different regions.
- Top performing transparency doesn’t necessarily translate to decarbonization.

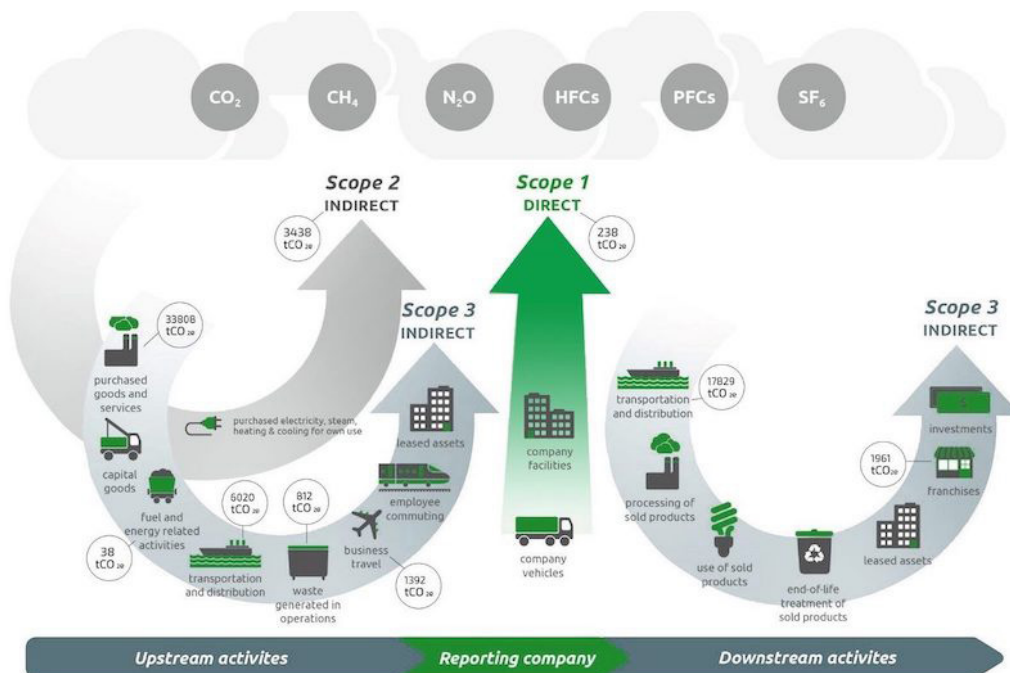
**The Basics of Greenhouse Gas (GHG) Emissions**

Central to the Signal report is an understanding of how the 250 highest emitting companies are identified and later ranked. Companies are selected based on Scope 1, 2, and 3 emissions (*Display 1*), using the ‘Corporate Accounting and Reporting Standard’ of the GHG Protocol of the World Resources Institute (WRI). For each industry, a ‘dominant Scope’ is defined, to represent the scope or category of emissions that has the greatest impact to climate change.

*Display 1* illustrates the full spectrum of emissions associated with a reporting company—those directly emitted from its business, such as company facilities and vehicles, as well as upstream and downstream activities, like emissions from activities of suppliers and customers. Those broad groupings are divided into direct emissions and indirect emissions, which contain more granular categories based on type of activity or asset. Categories are labeled C1 through C15, which include business travel, employee commuting, leased assets and investments.

Display 1

**Full Emissions Accounting Includes Both Direct and Indirect Corporate Activities**



Source: Signal Climate Analytics, September 2022. Illustration shows emissions scopes and categories of the GHG Protocol.

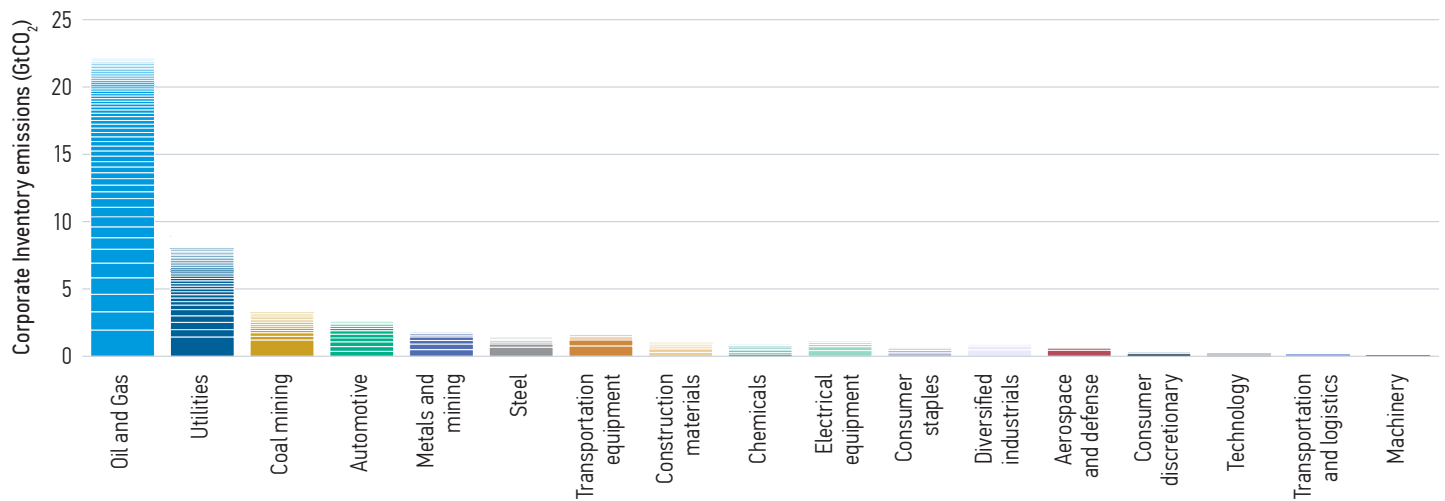
Scope 1 and 2 emissions are the easier and more standard part of emissions reporting since Scope 1 emissions are part of a company's organizational boundary and Scope 2 come from the purchase of energy. Scope 3 however, is more complicated to quantify because it covers indirect emissions that occur outside a company's boundaries, and which can also include the Scope 1 and 2 emissions of entities in a company's upstream and downstream value chain. Relevance of Scope 3 is largely dependent on the activities of a sector and company, and where the emissions are, primarily in the supply chain; e.g., use of its products. Scope 3 is the area where reporting and data quality lags the most. The report finds that many companies do not provide or are

ambiguous about Scope 3 data at a granular category level. This is usually the case even when the company provides detail to CDP (formerly known as the Carbon Disclosure Project). Many companies bundle Scope 3 categories together or are ambiguous about what the categories are. The lack of granularity and disclosure make it impossible to identify the dominant Scope of emissions.

For many sectors, this issue dramatically skews a company's complete emissions profile, because Scope 3 is often the largest source of emissions. For example, Scope 3 is the dominant scope for the automotive industry, as the majority of emissions are generated from the long-term use of its products.

Display 2

**Top 250 Emitters (Scope 1-3) by Sector**



Sources: Company reports, CDP, Signal Climate Analytics, September 2022.

### Transparency Score Methodology

According to Signal, transparency is a journey that can take companies a decade or so to fulfill. Its transparency scoring system reflects this progression. The rankings are based on a methodology, summarized below, that scores 250 companies with five weighted steps (shown in parentheses) on the path to transparency, focusing on disclosure.

1. **Initial emissions reporting (10%).** The company starts measuring and discloses its Scope 1 and 2 emissions.
2. **Reporting standards and verification (5%).** The company demonstrates accounting transparency by subscribing to the Global Reporting Initiative (GRI) reporting standard, disclosing to CDP, and obtaining third-party verification.
3. **Complete emissions reporting (20%).** The company estimates and discloses relevant Scope 3 categories up and down the value chain.
4. **Keystone metric reporting (30%).** The company estimates and discloses the most important emissions performance metric for tracking its contribution to a net-zero emissions future. It is an important benchmark because it allows like-for-like comparisons between peers and enables measurement against target setting goals (*Display 3* and *Sidebar* at bottom of page). The following are components of the keystone metric:
  - **Dominant scope.** The scope or category of largest impact as defined for each sector. For example, the dominant scope for automotive companies is Scope 3 category 11 (use of sold products).
  - **Structural granularity.** The disaggregation of data over the company's structure of activities and products. This is important because aggregation makes it difficult to assess performance on a sectoral basis, attribute the primary drivers affecting change, and compare peers of different levels of integration and configuration.
5. **Target setting (35%).** The company provides complete near-and long-term target information with clarity over specific data points necessary to understand its pathway against net zero. Step 5 identifies the data points necessary for a target's emissions trajectory to be understood. The scoring looks at:
  - **Time frame.** Clear base and target years provide a time frame to understand the rate of emissions reductions. Base years from decades ago undermine credibility because much of the progress advertised occurred before the target was set. Near-term (2023-2035) and long-term targets (post-2035) are assessed.
  - **Dominant scope.** As defined above, Signal identifies the most relevant emissions covered by both near-term and long-term targets.
  - **Dimension.** Signal identifies whether a target is of absolute emissions or emissions intensity.
  - **Long-term target definition.** Absolute or percentage emissions reductions should be defined for long-term ambitions.
  - **Carbon offsets.** The use of carbon offsets, sinks or similar should be made explicit.
  - **Validation.** Whether the target has been validated by the Science Based Target initiative (SBTi).

*A complete description of the methodology may be found in the full report, including additional emissions accounting detail, available on the Calvert Center for Responsible Investing website.*

Display 3

### Major Keystone Metrics and Related Scopes

SECTOR	METRIC	DOMINANT SCOPES
Coal	tCO <sub>2</sub> e/tonne coal	Scope 3 cat 11 + Scope 1
Oil and Gas (Primary Energy)	gCO <sub>2</sub> e/MJ	Scope 3 cat 11 + Scope 1
Utilities	tCO <sub>2</sub> e/MWh electricity	Scope 1
Steel	tCO <sub>2</sub> e/tonne crude steel	Scope 1 + Scope 2
Cement	tCO <sub>2</sub> e/tonne cement	Scope 1
Aluminium	tCO <sub>2</sub> e/tonne aluminium	Scope 1 + Scope 2
Automotive	gCO <sub>2</sub> e/km	Scope 3 cat 11
Airlines	tCO <sub>2</sub> e/revenue-passenger km	Scope 1

Source: Signal Climate Analytics, September 2022.

### Sidebar

#### Automakers Have a Keystone Metric -- Now More Have To Use It

The auto sector has a keystone metric: Global fleet average grams of CO<sub>2</sub>/KM). While the sector is fairly good at setting targets using this metric, Signal notes that the sector is quite poor at disclosing current performance measured against it. Instead, most automakers disclose Scope 3 emissions by determining the average number of kilometers driven per year, and the average lifespan of each vehicle. By changing these assumptions they can therefore dial their total Scope 3 number up and down. Until more auto companies disclose the keystone metric, we won't know the current climate impact of the sector.

Display 4

**The Top 30 and Bottom 20 Companies by Transparency Score**

RANK	TICKER	COMPANY	HEADQUARTERS	SECTOR	TRANSPARENCY SCORE
1	ENI IM	Eni SpA	Italy	Energy	97
2	ENGI FP	Engie SA	France	Utilities	96
3	EDF FP	Electricite de France SA	France	Utilities	96
4	NTGY SM	Naturgy Energy Group SA	Spain	Utilities	95
5	6302 JP	Sumitomo Heavy Industries Ltd	Japan	Machinery	95
6	TGT US	Target Corp	United States	Consumer Staples	94
7	5938 JP	Lixil Corp	Japan	Consumer Discretionary	94
8	6502 JP	Toshiba Corp	Japan	Electrical Equipment	94
9	UN01 GR	Uniper SE	Germany	Utilities	93
10	REP SM	Repsol SA	Spain	Energy	93
11	NESN SW	Nestle SA	Switzerland	Consumer Staples	92
12	TTE FP	TotalEnergies SE	France	Energy	92
13	FORTUM FH	Fortum Oyj	Finland	Utilities	92
14	SHEL LN	Shell PLC	United Kingdom	Energy	91
15	6501 JP	Hitachi Ltd	Japan	Diversified Industrials	91
16	OMV AV	OMV AG	Austria	Energy	91
17	EQNR NO	Equinor ASA	Norway	Energy	91
18	IBE SM	Iberdrola SA	Spain	Utilities	91
19	EXC US	Exelon Corp	United States	Utilities	90
20	2 HK	CLP Holdings Ltd	Hong Kong	Utilities	89
21	ENEL IM	Enel SpA	Italy	Utilities	88
22	ORG AU	Origin Energy Ltd	Australia	Utilities	88
23	BN FP	Danone SA	France	Consumer Staples	87
24	RWE GR	RWE AG	Germany	Utilities	87
25	AGL AU	AGL Energy Ltd	Australia	Utilities	87
26	GM US	General Motors Co	United States	Automotive	86
27	DUK US	Duke Energy Corp	United States	Utilities	86
28	BMW GR	Bayerische Motoren Werke AG	Germany	Automotive	86
29	ULVR LN	Unilever PLC	United Kingdom	Consumer Staples	86
30	AAL US	American Airlines Group Inc	United States	Transportation And Logistics	85
231	158443Z UH	Abu Dhabi National Oil Co	United Arab Emirates	Energy	0.4
232	CNBMGZ CH	China National Building Material Group Co Ltd	China	Construction Materials	0.4
233	MTLR RM	Mechel PJSC	Russia	Steel	0.4
234	PBF US	PBF Energy Inc	United States	Energy	0.4
235	CPIZ CH	State Power Investment Corp Ltd	China	Utilities	0.2
236	600795 CH	GD Power Development Co Ltd	China	Utilities	0.2
237	001411 DMY	National Iranian Oil Co	Iran	Energy	0
238	022462 DMY	Valiant Resources	Australia	Coal Mining	0
239	200625 CH	Chongqing Changan Automobile Co Ltd	China	Automotive	0
240	3097Z US	Koch Industries Inc	United States	Diversified Industrials	0
241	58325Z NL	Nigerian National Petroleum Corp	Nigeria	Energy	0
242	601699 CH	Shanxi Lu'an Environmental Energy Development Co Ltd	China	CoalMining	0
243	CHXGAZ CH	Chiping Xinfa Huayu Alumina Co Ltd	China	Metals And Mining	0
244	HBJNEZ CH	Jizhong Energy Group Co Ltd	China	Coal Mining	0
245	NLC IN	NLC India Ltd	India	Utilities	0
246	PDVSA VC	Petroleos de Venezuela SA	Venezuela	Energy	0
247	PETROCH AB	National Petrochemical Co	Saudi Arabia	Chemicals	0
248	RPWR IN	Reliance Power Ltd	India	Utilities	0
249	SCCIGZ CH	Shaanxi Coal and Chemical Industry Group Co Ltd	China	CoalMining	0
250	YGCZ CH	Shandong Energy Co Ltd	China	CoalMining	0

Source: Signal Climate Analytics, September 2022.

## High Level Observations

### The top 30 Most Transparent Companies (*Display 4*)

- Utilities make up 43% of the top 30 companies. Seventy percent of the utilities are European, reflecting a policy and regulatory environment encouraging decarbonization.
- A quarter of consumer staples companies in the universe make the top 30. Target, Nestle and Danone self-report their dominant Scope 3 emissions categories and accompany this with ambitious target setting.

### The 20 Least Transparent Companies (*Display 4*)

- There is virtually no transparency from the bottom 20 companies across emissions accounting, keystone metric and target setting.
- These laggards include a number of SOEs in oil-producing countries.
- Half of the bottom 20 companies are Chinese, four of which are coal mining companies.

Calvert notes that there is notable room for improvement for American companies. Only five U.S. companies are represented in the top 30 list: Target, Exelon, General Motors, Duke Energy and American Airlines. At the bottom of the list, PBF Energy and Koch Industries ranked 233 and 239, respectively.

## Transparency Scores of the Highest GHG Emitting Sectors (excl. Coal)

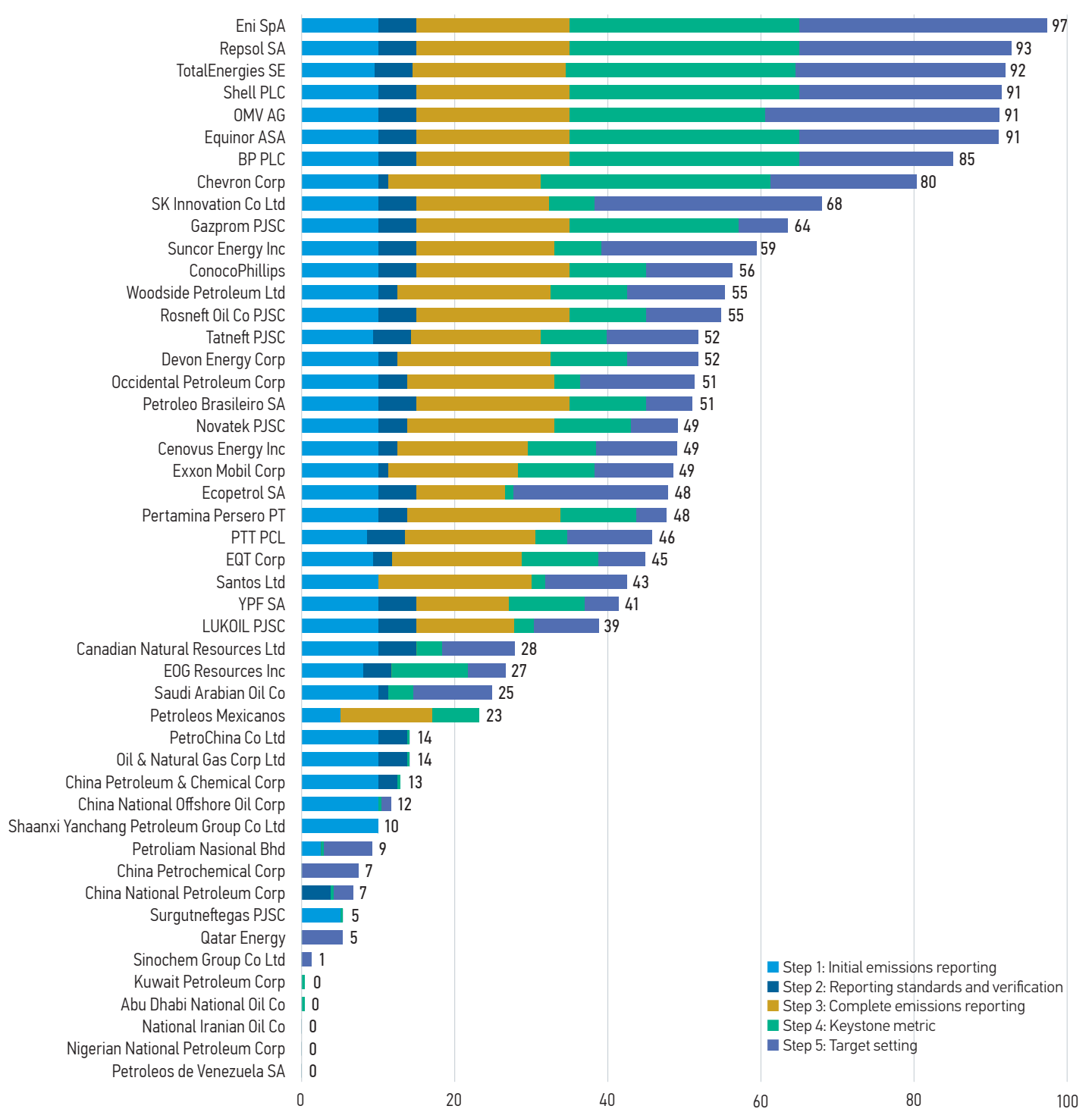
**Oil and gas (*Display 5*).** Eight companies lead the group: Eni, Repsol, OMV, Total Energies, Shell, Equinor, BP and Chevron. Their high scores reflect the fact that they disclose the keystone metric based on emissions intensity, which covers value-chain emissions. They also score well on targets.

**Automotive (*Display 6*).** This sector scores well on emissions accounting and target setting. However, only General Motors and BMW disclose the global keystone metric of vehicle emissions intensity data. The industry's lack of a uniform keystone metric illustrates why it is such an important component of emissions disclosure (see *Sidebar*, p. 5, bottom). Another issue: Automakers, in general, only report emissions in regions where they are already required to do so.

**Utilities (*Display 7*).** Transparency scores for this group are relatively high due to the quality of disclosures. The underperformers are mostly Chinese companies, showing little-to-no transparency across the board.

Display 5

**Oil and Gas Sector Company Transparency Scores**

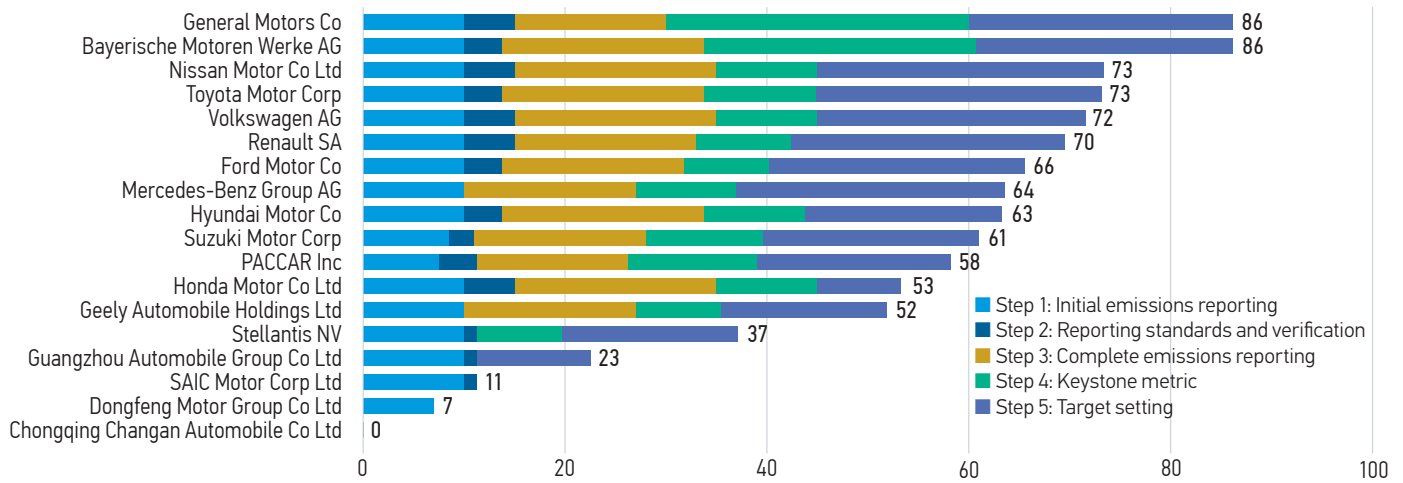


Source: Signal Climate Analytics, September 2022.



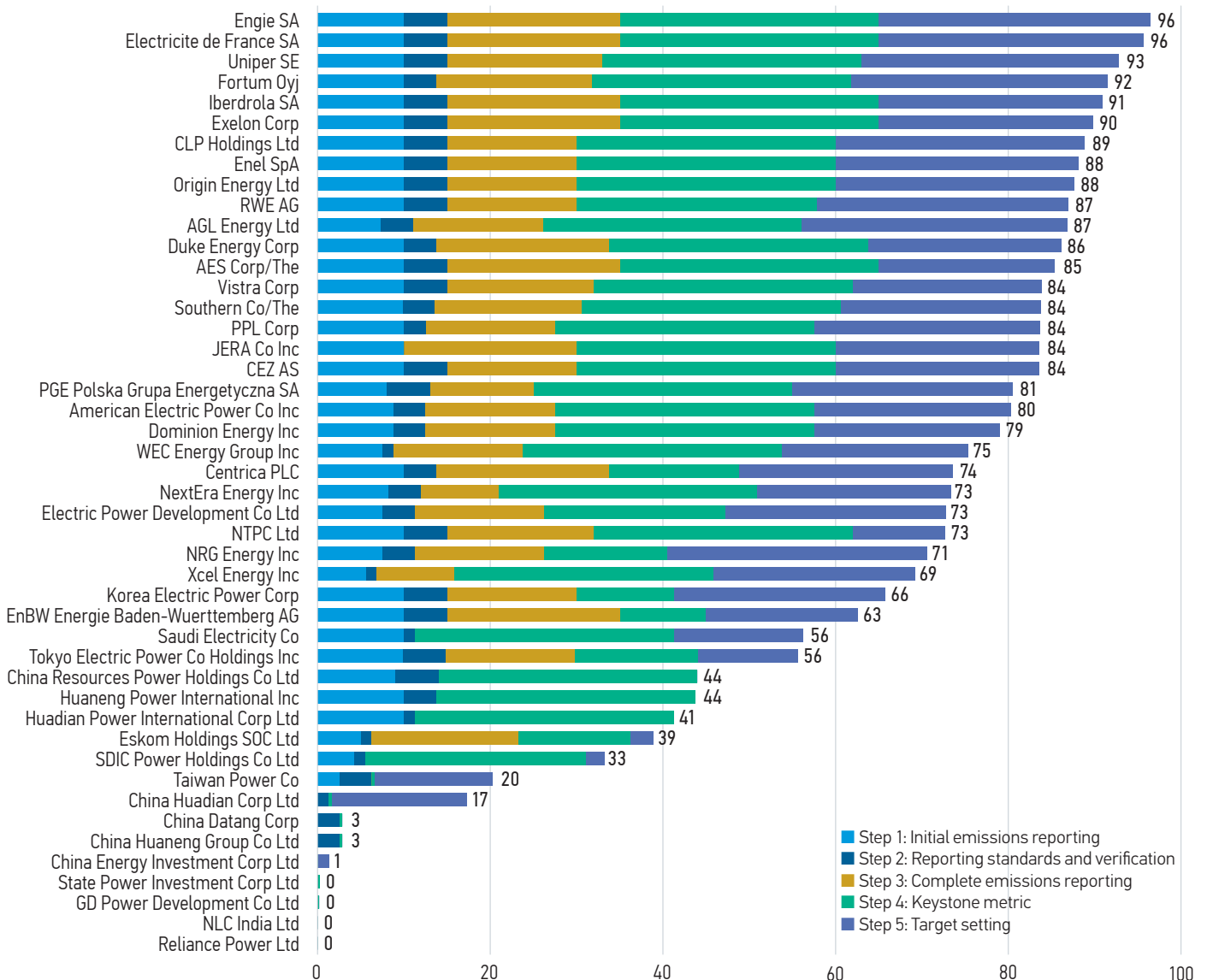
Display 6

**Automotive Transparency Scores**



Display 7

**Utilities Transparency Scores**



Source: Signal Climate Analytics, September 2022.

### Signal's Key Findings

In addition to describing its methodology and presenting its ranking, Signal offers four key insights in its report.

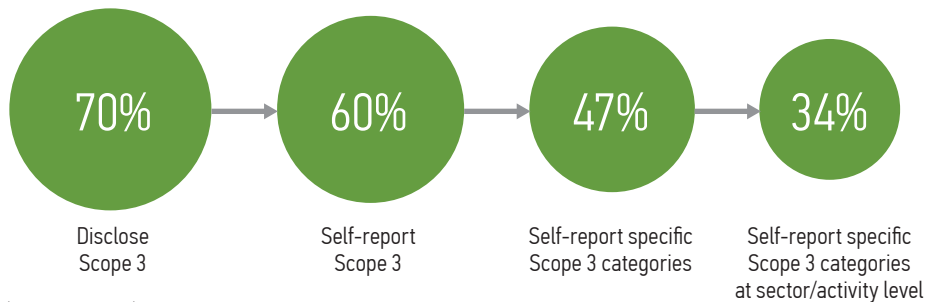
1. **A low level of transparency beneath the surface.** A considerable 88% of companies disclose Scope 1 and 2 emissions and 70% disclose Scope 3 in some form. However, looking beneath the surface reveals a significant reduction in real transparency. Self-reported Scope 3 disclosure of categories at the company activity level is 34% (*Display 8*).
  - Carbon offsetting is prevalent and raises questions about the real emissions cuts companies are planning to achieve. Half of

companies with long-term targets disclose plans to use them but a mere 3% of companies explicitly disclose that they will not use carbon offsets.

- Automotive companies perform poorly with just 11% disclosing a global keystone metric, despite 72% disclosing an intensity of Scope 3 'use of sold products'. Companies often report only for certain markets, such as the U.S., the EU, and Japan, where they are already obliged to submit measures to the regulator.
- Sectors in which relevant emissions derive from directly owned assets or electricity purchases (Scope 1 and 2)—electric utilities, steel, aluminum and construction materials (cement)—find it easier to report dominant scope emissions.

Display 8

### The Real Transparency of Scope 3 Accounting



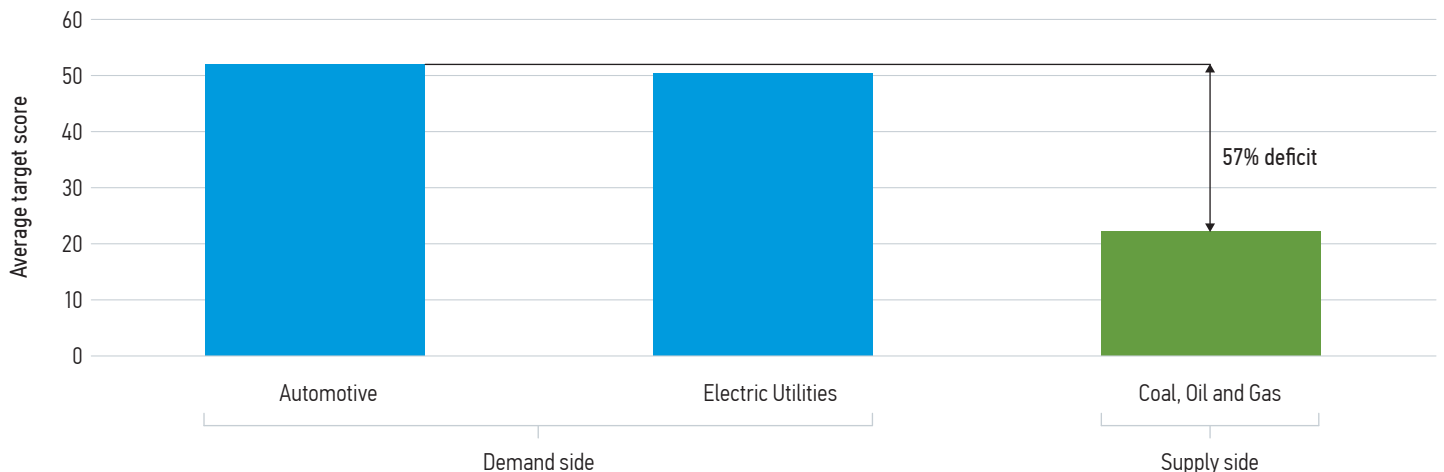
Source: Signal Climate Analytics, September 2022.

2. **A disconnect between supply and demand sides of the energy value chain (*Display 9*).** A critical problem among the primary energy producers—coal, oil and gas—persists in that many companies remain unwilling to publish the Scope 3 emissions that emerge from the use of their products. Over a quarter of the emissions in Signal's universe (14 GtCO<sub>2</sub>) are unreported data from the primary energy sector. Not one coal mining company has a keystone metric. On the positive side, with an increase of 25% since 2019, Scope 3 disclosure in the oil and gas sector is on the rise.

Underreporting by the oil and gas sector is most concerning as it relates to methane—the second-most-abundant GHG—because all sectors that rely on energy from methane-producing sources are understating their emissions impact. For example, electric vehicle (EV) owners may plug into sources of electricity generated from natural gas with significant upstream methane leakage. As long as the upstream emissions are underreported, EV owners may not realize that the climate impact of their EV mileage could be as bad as coal, or worse.

Display 9

### Primary Energy Supply-Side Ambition Deficit



Source: Signal Climate Analytics, September 2022.

In the U.S., the oil and gas sector, the SEC and the EPA all have been operating under outdated methodology and assumptions, which have contributed to the underreporting of methane emissions. A future Signal report examines the potential impact on the oil and gas industry as the regulatory environment evolves.

Primary producers significantly lag their principal demand-side sectors—electric utilities and automotive—at including dominant scope emissions in their target setting. This indicates a disconnect between the supply and demand sides of the energy value chain.

3. **Regulation and public scrutiny make a difference to target setting transparency across different regions.** European companies outperform other regions in transparency as they are driven by a strong regulatory and policy environment. Ninety-eight percent of European companies disclose near-term targets and 88% cover their dominant scopes.

There is a sharp divide between publicly listed and private companies among Signal's universe of top 250 emitters, with 95% of public companies disclosing emissions data versus 32% for private. Publicly listed companies also perform best in terms of target setting with 83% setting near-term targets, 70% of which cover their dominant emissions' scopes. Eighty-two percent of publicly listed State-Owned Enterprises (SOEs) disclose emissions versus 27% of private SOEs. Listed SOEs also perform better on target setting with 50% setting near-term targets compared to 20% for unlisted SOEs.

4. **Top performing transparency doesn't necessarily translate to decarbonization.** Consumer staples companies, such as Nestle,

Danone and Target, are leaders at Scope 3 disclosure and have high transparency scores. However, they face significant challenges to decarbonize their value chains.

In oil and gas, companies such as Shell and Eni have enhanced their ability to benchmark progress by employing life-cycle principles in their calculation of Scope 3 emissions. However, companies in this sector need to manage their methane and shift their energy product portfolios away from fossil fuels.

### Conclusion

As allocators of capital, investors play an important role in the energy transition. The investment community is ideally positioned to evaluate the criteria Signal identifies for meaningful net zero targets. These include:

- Metrics that provide transparency over the critical variables at each step in the emissions pathway.
- Details on how emissions cuts will be achieved. The reliance on carbon offsetting is worrying, particularly for industries where reduction technology options are now becoming available.
- Improvements in disclosures and more granular analyses, which are required to fill the gaps for understanding transition pathways.

Such moves would give management and investors alike the ability to better assess risks, opportunities, business models and financial requirements to achieve net-zero goals. The Calvert Center for Responsible Investing looks forward to sharing the results of coming research on these important aspects of the transition to net zero.

## GICS Subindustry Disclosure for Calvert Center Transparency Report

### Company Names/GICS Subindustries

Calvert portfolios hold the following companies within the GICS subindustries noted, as of 6/30/22. Listed are the top 15 portfolio holdings in the subindustry, based on market capitalization. The subindustries were selected based on the classifications of publicly traded companies named in the report. The report also includes 26 privately held companies whose subindustries could not be determined.

#### Airlines

Southwest Airlines Co.  
Delta Air Lines, Inc.  
American Airlines Group, Inc.  
Ryanair Holdings Plc  
Alaska Air Group, Inc.  
Singapore Airlines Ltd.  
Air Canada  
International Consolidated Airlines Group SA  
Deutsche Lufthansa AG  
Qantas Airways Limited  
ANA Holdings Inc.  
Eva Airways Corporation  
Air France-KLM SA  
easyJet plc  
HANJIN KAL Corp.

#### Automobile Manufacturers

Tesla Inc  
Toyota Motor Corp.  
General Motors Company  
Ford Motor Company

Mercedes-Benz Group AG  
Stellantis N.V.  
BYD Company Limited Class H  
Bayerische Motoren Werke AG  
Hyundai Motor Company  
Mahindra & Mahindra Ltd.  
Maruti Suzuki India Limited  
Kia Corp.  
SUBARU CORP  
Tata Motors Limited  
Geely Automobile Holdings Limited

#### Automotive Retail

O'Reilly Automotive, Inc.  
AutoZone, Inc.  
CarMax, Inc.  
Advance Auto Parts, Inc.  
Lithia Motors, Inc.  
Hotai Motor Co., Ltd.  
AutoNation, Inc.  
USS Co., Ltd.  
Carvana Co. Class A  
Penske Automotive Group, Inc.

Zhongsheng Group Holdings Ltd.  
PTT Oil and Retail Business Public Co Limited  
China MeiDong Auto Holdings Ltd.

#### Building Products

DAIKIN INDUSTRIES, LTD.  
Johnson Controls International plc  
Trane Technologies plc  
Carrier Global Corp.  
Compagnie de Saint-Gobain SA  
ASSA ABLOY AB Class B  
NIBE Industrier AB Class B  
Geberit AG  
Carlisle Companies Incorporated  
Masco Corporation  
Advanced Drainage Systems, Inc.  
Kingspan Group Plc  
Allegion Public Limited Company  
Owens Corning  
Lennox International Inc.

#### Coal & Consumable Fuels

Enviva Inc

#### Construction Machinery & Heavy Trucks

Caterpillar Inc.  
PACCAR Inc  
Cummins Inc.  
Volvo AB Class B  
Komatsu Ltd.  
Westinghouse Air Brake Technologies Corporation  
Epiroc AB Class A  
Daimler Truck Holding AG  
Toyota Industries Corp.  
Alstom SA  
Metso Outotec Oyj  
Oshkosh Corp  
Knorr-Bremse AG  
Ashok Leyland Limited  
Samsung Heavy Industries Co., Ltd

**Construction Materials**

CRH Plc  
 Vulcan Materials Company  
 James Hardie Industries PLC  
 Chess Units of Foreign Securities  
 Siam Cement Public Co. Ltd.  
 HeidelbergCement AG  
 Cemex SAB de CV Cert Part  
 Ord Repr 2 ShsA & 1 ShsB  
 Ambuja Cements Limited  
 PT Berkah Beton Sadaya Tbk  
 GCC SAB de CV

**Electric Utilities**

NextEra Energy, Inc.  
 Iberdrola SA  
 Xcel Energy Inc.  
 Enel SpA  
 Eversource Energy  
 Constellation Energy Corporation  
 SSE plc  
 Orsted  
 Alliant Energy Corp  
 EDP-Energias de Portugal SA  
 Terna S.p.A.  
 Hydro One Limited  
 Red Electrica Corp. SA  
 VERBUND AG Class A  
 Equatorial Energia S.A.

**Gas Utilities**

Adani Total Gas Ltd.  
 ENN Energy Holdings Limited  
 Snam S.p.A.  
 APA Group  
 TOKYO GAS Co., Ltd.  
 Osaka Gas Co., Ltd.  
 Naturgy Energy Group, S.A.  
 China Gas Holdings Limited  
 New Jersey Resources Corporation  
 ONE Gas, Inc.  
 Enagas SA  
 China Resources Gas Group Limited  
 Petronas Gas Bhd.  
 Italgas SpA  
 Rubis SCA

**General Merchandise Stores**

Target Corporation  
 Dollar General Corporation  
 Wesfarmers Limited  
 Dollarama Inc.  
 Pan Pacific International Holdings Corporation  
 Canadian Tire Corporation, Limited Class A  
 B&M European Value Retail SA  
 Magazine Luiza S.A.

**Independent Power Producers & Energy Traders**

AES Corporation  
 Gulf Energy Development Public Co. Ltd.  
 ERG S.p.A.  
 Global Power Synergy Public Company Ltd  
 Uniper SE  
 B.Grimm Power Public Company Ltd  
 AC Energy Corp.

**Industrial Conglomerates**

Siemens AG  
 3M Company  
 International Holdings Company PJSC  
 Alpha Dhabi Holding PJSC  
 SM Investments Corporation  
 SAMSUNG C&T CORP  
 Smiths Group Plc  
 DCC Plc  
 Melrose Industries PLC  
 Bidvest Group Limited  
 Lifco AB Class B  
 Q Holding PJSC  
 Far Eastern New Century Corporation  
 Latour AB Investment Class B  
 Turkiye Sise ve Cam Fabrikalari A.S.

**Industrial Machinery**

Illinois Tool Works Inc.  
 Atlas Copco AB Class A  
 Parker-Hannifin Corporation  
 Otis Worldwide Corporation  
 Fanuc Corporation  
 SMC Corporation  
 Fortive Corp.  
 Ingersoll Rand Inc.  
 Dover Corporation  
 Xylem Inc.  
 IDEX Corporation  
 Sandvik AB  
 Techtronic Industries Co., Ltd.  
 Kone Oyj Class B  
 Stanley Black & Decker, Inc.

**Multi-Utilities**

Sempra Energy  
 National Grid plc  
 Consolidated Edison, Inc.  
 Ameren Corporation  
 ENGIE SA.  
 CMS Energy Corporation  
 Veolia Environnement SA  
 Algonquin Power & Utilities Corp.  
 Hera S.p.A.  
 A2A S.p.A.  
 Acea S.p.A.

**Oil & Gas Refining & Marketing**

Neste Corporation  
 Petronas Dagangan Bhd.  
 Archaea Energy, Inc. Class A  
 VERBIO Vereinigte BioEnergie AG

**Packaged Foods & Meats**

Nestle S.A.  
 Mondelez International, Inc. Class A  
 General Mills, Inc.  
 Hershey Company  
 Danone SA  
 Kraft Heinz Company  
 McCormick & Company, Incorporated  
 Kellogg Company

Conagra Brands, Inc.  
 Kerry Group Plc Class A  
 J.M. Smucker Company  
 Hormel Foods Corporation  
 China Mengniu Dairy Co., Ltd.  
 Ajinomoto Co., Inc.  
 Kikkoman Corporation

**Personal Products**

Unilever PLC  
 L'Oreal S.A.  
 Estee Lauder Companies Inc. Class A  
 Hindustan Unilever Limited  
 Kao Corp.  
 Shiseido Company, Limited  
 Beiersdorf AG  
 LG H&H Co., Ltd.  
 Godrej Consumer Products Limited  
 Dabur India Limited  
 Kose Corporation  
 Amorepacific Corp.  
 Hengan International Group Co., Ltd.  
 Natura & Co Holding SA  
 Coty Inc. Class A

**Renewable Electricity**

Brookfield Renewable Partners LP  
 Adani Green Energy Limited  
 Northland Power Inc.  
 Brookfield Renewable Corp. Class A  
 NextEra Energy Partners LP  
 EDP Renovaveis SA  
 China Longyuan Power Group Corporation Ltd Class H  
 Ormat Technologies, Inc.  
 Energy Absolute Public Co. Ltd.  
 Meridian Energy Limited  
 Boralex Inc. Class A  
 Clearway Energy, Inc. Class C  
 Encavis AG  
 Innergex Renewable Energy Inc.  
 Atlantica Sustainable Infrastructure plc

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