



Excellent TCFD Disclosure Selected by GPIF's Asset Managers Entrusted with Foreign Equity Investment

Government Pension Investment Fund (GPIF) requested its 24 external asset managers entrusted with foreign equity investment (hereinafter, "external asset manager") to nominate "excellent TCFD disclosure". The result of the survey was compiled into two lists, comprised of 79 companies below selected for having excellent TCFD disclosure.

[Companies nominated by two or more external asset managers for their excellent TCFD disclosure] (number of external asset managers)

◇ MICROSOFT CORP	(8)	◇ GENERAL MOTORS CO	(2)
◇ ENEL SPA	(6)	◇ HSBC HOLDINGS PLC	(2)
◇ NESTLE SA	(3)	◇ JPMORGAN CHASE & CO	(2)
◇ RIO TINTO PLC	(3)	◇ NEXTERA ENERGY INC	(2)
◇ CANADIAN NATIONAL RAILWAY CO	(2)	◇ ROYAL BANK OF CANADA	(2)
◇ CIE DE SAINT-GOBAIN SA	(2)	◇ SSE PLC	(2)
◇ CITIGROUP INC	(2)	◇ WALMART INC	(2)
◇ FORD MOTOR CO	(2)		

[Companies selected by GPIF's external asset managers for excellent TCFD disclosure]

Company Name	Number of Nomination	Company Name	Number of Nomination	Company Name	Number of Nomination
ACCENTURE PLC	1	COMFORTDELGRO CORP LTD	1	NEXTERA ENERGY INC	2
ALBEMARLE CORP	1	CONOCOPHILLIPS	1	PALO ALTO NETWORKS INC	1
ALPHABET INC	1	CROWN HOLDINGS INC	1	PAYPAL HOLDINGS INC	1
AMERICAN AIRLINES GROUP INC	1	CVS HEALTH CORP	1	PROCTER & GAMBLE CO	1
AMGEN INC	1	DBS GROUP HOLDINGS LTD	1	QANTAS AIRWAYS LTD	1
ANGLO AMERICAN PLC	1	EMPRESAS CMPC SA	1	REPSOL SA	1
ANZ GROUP HOLDINGS LTD	1	ENBRIDGE INC	1	RIO TINTO PLC	3
ARCELORMITTAL SA	1	ENEL SPA	6	ROYAL BANK OF CANADA	2
ASML HOLDING NV	1	FORD MOTOR CO	2	SAMSUNG BIOLOGICS CO LTD	1
ASTRAZENECA PLC	1	GENERAL MOTORS CO	2	SCHNEIDER ELECTRIC SE	1
BANCA POPOLARE DI SONDRIO SPA	1	GLENCORE PLC	1	SIEMENS AG	1
BANCO BILBAO VIZCAYA ARGENTA	1	GSK PLC	1	SITC INTERNATIONAL HOLDINGS CO	1
BANK OF AMERICA CORP	1	HOLCIM AG	1	SSE PLC	2
BCE INC	1	HSBC HOLDINGS PLC	2	STANTEC INC	1
BOMBARDIER INC	1	IBERDROLA SA	1	STMICROELECTRONICS NV	1
BP PLC	1	INGERSOLL RAND INC	1	TAIWAN SEMICONDUCTOR MANUFACTURING CO LTD	1
BRISTOL-MYERS SQUIBB CO	1	IRON MOUNTAIN INC	1	TORONTO-DOMINION BANK	1
BROOKFIELD ASSET MANAGEMENT LTD	1	JPMORGAN CHASE & CO	2	TOTALENERGIES SE	1
CANADIAN NATIONAL RAILWAY CO	2	KINROSS GOLD CORP	1	TRAVELERS COS INC	1
CAPITAL POWER CORP	1	MEDTRONIC PLC	1	UNILEVER PLC	1
CEMEX SAB DE CV	1	MICROSOFT CORP	8	VERIZON COMMUNICATIONS INC	1
CHALEASE HOLDING CO LTD	1	NASDAQ INC	1	VODAFONE GROUP PLC	1
CIE DE SAINT-GOBAIN SA	2	NATIONAL AUSTRALIA BANK LTD	1	WALMART INC	2
CITIGROUP INC	2	NATIONAL GRID PLC	1	WELLS FARGO & CO	1
COCA-COLA CO	1	NATWEST GROUP PLC	1	WISTRON NEWEB CORP	1
COLGATE-PALMOLIVE CO	1	NESTLE SA	3	WW GRAINGER INC	1
COMCAST CORP	1				

Note: The above list is composed of companies whose TCFD disclosure were selected by external asset managers as "excellent TCFD disclosure". (Listed in alphabetical order) The companies highlighted in blue were nominated by two or more external asset managers.

[Key remarks on the “excellent TCFD disclosure” nominated by two or more external asset managers]

○ MICROSOFT CORP

- Microsoft's extensive TCFD report establishes various targets across a range of themes and timelines. It gives special attention to water, outlining the company's processes for identifying and assessing climate and water-related risks and opportunities, as well as the details of its internal water pricing. The report charts out Microsoft's climate-related governance structure and the responsibilities of individual roles and sub-teams working on initiatives like the development of the Sustainability Policy and the Climate Innovation Fund. Furthermore, the report covers the company's qualitative and quantitative analysis of physical climate-related risk exposure of approximately 1400 assets around the world.
- Great detail on how they intend to address climate related risks and opportunities. Additionally, they disclose how they intend to manage water related risks and opportunities.
- Governance: Microsoft put out both a 2024 Environmental Sustainability Report and a TCFD report, covering FY 2022 and 2023. Metrics & Targets: Comprehensive Scope 3 disclosure across 11 categories, along with a well-detailed emissions calculation methodology in a separate sustainability report data fact sheet. They set out short-term and long-term targets spanning across Scope 1 and 2 emissions, water, waste and ecosystems. This is combined with detailed progress and strategy reporting around these targets.
- In our view, the company is one of the most advanced in the market in terms of the scope, ambition and transparency of its climate metrics and targets Microsoft Corp's. \$1 billion investment initiative through its Climate Innovation Fund to accelerate technology development and deployment of new climate innovations through equity and debt capital was one of the most advanced amongst its peers.
- MSFT has continued to enhance its standalone TCFD reporting since 2022 in both depth and links to its fundamental business drivers.
- Microsoft continues publish high-quality reporting with its 2024 TCFD report. Microsoft provides a standalone TCFD report that comprehensively addresses each of the four TCFD pillars. In particular, it does an excellent job describing the various tools used in its climate-related assessments. Further, it has identified four core sustainability pillars and established commitments pertaining to each one. It reports on progress towards achieving these commitments regularly.
- MSFT is undoubtedly a leader on climate reporting with technical, detailed assessments of MSFT's risks and opportunities across various climate scenarios. The report is accessible and financially material, and provides some unique modes of assessment including better delineation of risks along MSFT's full value chain, and differentiating between acute and chronic risks and providing context for their management approach.
- All TCFD recommendations are followed. Good descriptions of opportunities.

○ ENEL SPA

- As per the latest Climate Action 100+'s Net zero benchmark, the company has publicly committed to implement the recommendations of the Task Force on Climate related Financial Disclosures (TCFD). It explicitly signposts TCFD-aligned disclosures in its annual reporting or publishes them in a TCFD report. In addition, the

company employs climate-scenario planning to test its strategic and operational resilience. The company has conducted a climate-related scenario analysis including quantitative elements and disclosed its results. The quantitative scenario analysis explicitly includes a 1.5°C scenario, covers the entire company, discloses key assumptions and variables used, and reports on the key risks and opportunities identified. The company also published a CDP climate change questionnaire in addition of its TCFD disclosure in its sustainability report.

- Enel's TCFD reporting, within their 2023 Sustainability Report, continues to be sector-leading. The company have highlighted a clear roadmap for decarbonisation, with clearly disclosed emissions reduction targets across Scope 1, 2 and 3 emissions, which have been verified by the Science-based Targets Initiative. They provide good disclosure on how they will transition their business model to a low carbon one, with disclosure on their high-level CapEx plans to achieve this. Enel's TCFD report is also a good example of scenario analysis, with clear quantification of the potential risks and opportunities across a range of transition and physical climate risks.
- Enel demonstrates its TCFD disclosures via an annex within its Sustainability Report. It clearly shows the strategy and associated CAPEX to decarbonise its business.
- In our view, the company is one of the most advanced high climate impact companies in the portfolio in terms of the scope, ambition and transparency of its climate metrics and targets and governance. We have assessed the oversight framework of the company's climate strategy as being clear, transparent and supportive of accountability, based on our review of available data and disclosures. We believe that the company's climate risk management processes, including the use of scenario analysis, are robust based on our review of available data.
- Enel outlines its roadmap for achieving the Net Zero 2040 target, as well as specific decarbonization plans for the company and its supply chain. Enel describes the governance structure in detail, along with the role of the business operation side, and Corporate Governance and Sustainability Committee within the Board of Directors to supervise the climate change strategy.
- Each chapter of the sustainability report is linked to the related TCFD criteria.

○ NESTLE SA

- As per the latest Climate Action 100+'s Net zero benchmark, the company has publicly committed to implement the recommendations of the Task Force on Climate related Financial Disclosures (TCFD). It explicitly sign-posts TCFD-aligned disclosures in its annual reporting or publishes them in a TCFD report. In addition, the company employs climate-scenario planning to test its strategic and operational resilience. The company has conducted a climate-related scenario analysis including quantitative elements and disclosed its results. The quantitative scenario analysis explicitly includes a 1.5°C scenario, covers the entire company, discloses key assumptions and variables used, and reports on the key risks and opportunities identified. The company also published a CDP climate change questionnaire in addition of its TCFD disclosure in its sustainability report.
- Strong disclosure on Scope 3 strategy, discloses Scope 3 FLAG emissions and progress toward Scope 3 FLAG target in line with latest SBTi guidance, integrates disclosure on climate and biodiversity, aligns with all pillars of TCFD.

- In addition to physical risk maps and transition plans for key commodities, it also includes the impact of climate change on the company's business and supply chain. It also provides valuable information on renewable agriculture and water management.

○ RIO TINTO PLC

- In our view, the company is one of the most advanced in the market amongst its peers in terms of the scope, ambition and transparency of its climate metrics and targets. The mining company's plan to reduce its Scope 1 and 2 emissions by 15% by 2025 and by 50% by 2030, enabled by investing \$5-6 billion in decarbonisation projects, is market-leading within its sector in terms of its transparency and ambition.
- Medium- to long-term transition strategies are described in detail. Core projects, their progress, and investment amounts are disclosed in detail. Emissions calculation methodologies are updated to ensure transparency and accuracy.
- Strategy: Rio Tinto sets out distinct decarbonisation roadmaps for 2030 and 2050. Clear progress updates have been provided on all 2023 Climate Action Plan commitments, which includes capex allocation on decarbonisation. Rio Tinto has established six detailed abatement programs to address their decarbonisation strategy (short and long term) for each product group. The technical challenges of each product's decarbonisation are also clearly laid out. They have also defined six focus areas to address their Scope 3 emissions and provide detail on their progress and 2024 objectives for steel decarbonisation. Metrics & Targets: Their Scope 1, 2 and 3 emissions are all broken down by business sector, with additional reporting on their emissions calculations methodology.

○ CANADIAN NATIONAL RAILWAY CO

- CN's Climate report is notable for its focus on operational impacts and adaptation strategies, and includes a large amount of supplementary information . The company conducted and disclosed several case studies around the potential impacts of various climate risks (carbon pricing, changing consumer behavior, acute physical risk), and opportunities (resource efficiency, new products/services, new markets) relevant to their industry and business model.
- It is well balanced with governance, risk and opportunity, and strategy. It is considered that the company is actively working on climate issues by disclosing the impact of the introduction of carbon pricing. It is also appreciated that the company discloses its engagement with stakeholders such as suppliers, customers, and policy authorities.

○ CIE DE SAINT-GOBAIN SA

- As per the latest Climate Action 100+'s Net zero benchmark, the company has publicly committed to implement the recommendations of the Task Force on Climate related Financial Disclosures (TCFD). It explicitly signposts TCFD-aligned disclosures in its annual reporting or publishes them in a TCFD report. In addition, the company employs climate-scenario planning to test its strategic and operational resilience. The company has conducted a climate-related scenario analysis including quantitative elements and disclosed its results. The quantitative scenario analysis explicitly includes a 1.5°C scenario, covers the entire company, discloses key

assumptions and variables used, and reports on the key risks and opportunities identified. The company also published a CDP climate change questionnaire in addition of its TCFD disclosure in its URD.

(TCFD correspondence table is available here: <https://www.saint-gobain.com/sites/saint-gobain.com/files/media/document/ESG%20Information%20Pack.xlsx>)

- In our view, the company is one of the most advanced high climate impact companies in the portfolio in terms of the scope, ambition and transparency of its climate metrics and targets and governance. We believe that the company's climate risk management processes, including the use of scenario analysis, are robust based on our review of available data.

○ CITIGROUP INC

- We particularly appreciated that the distribution of the transition progress of customers in the electricity and oil sectors in the company's loan portfolio was disclosed in an easy-to-understand manner.
- Citi has been actively implementing the Task Force on Climate-related Financial Disclosures (TCFD) recommendations since 2018, aiming to achieve net zero emissions in their financing activities by 2050 and operational emissions by 2030. Their approach includes setting baseline emissions and targets for specific sectors, such as Energy and Power, and regularly updating these in their TCFD and climate reports. Governance of their Net Zero Plan involves a broad structure, including the Board of Directors, ESG Council, and Climate and Sustainability Council. Progress is measured using metrics like sectoral targets, absolute emissions, and emissions intensity. Citi's strategy during the low-carbon transition involves reorganizing business teams and updating climate risk management processes. Additionally, their Risk Management Committee regularly reviews policies and practices related to climate-related risks.

○ FORD MOTOR CO

- Ford's climate-related reporting aligns with TCFD recommendations in a comprehensive manner, addressing all four key pillars—governance, strategy, risk management, and metrics and targets. Ford's alignment with the framework is particularly strong regarding its disclosures about investments in electric vehicle production and emissions reduction targets for each scope, aligned with the Science Based Targets initiative (SBTi). Ford is now beginning its transition to align its Integrated Sustainability and Financial Report with the European Union Corporate Sustainability Reporting Directive (CSRD) in upcoming reporting periods.
- Ford's sustainability report provides a comprehensive overview of the company's sustainability efforts across all four pillars of TCFD. The report clearly describes how responsibility for sustainability matters is governed at the management and board levels, and Ford's approach to risk management accounts for industry-specific EV risks and opportunities through a robust climate scenario analysis. We appreciate that Ford's disclosure enables us to easily evaluate progress against its SBTi-certified 2035 Scope 1, 2, and 3 GHG emissions reduction targets, and we find its disclosures regarding capital allocation for GHG reduction projects helpful in assessing how its efforts align with its stated strategy and goals.

○ GENERAL MOTORS CO

- General Motors provides comprehensive disclosure against each of the four TCFD pillars. It has established

long-term climate goals and provides clear disclosure on milestones towards them. Its report includes information on the initiatives and programs the company will pursue in order to achieve climate goals including addressing Scope 3 emissions. Finally, in addition to describing relevant oversight structures, the company includes specific, quantitative climate-related metrics in its executive compensation plan.

- General Motors (GM) publishes a full sustainability report as well as a TCFD report that reviews their approach to managing climate related risks. The company has a comprehensive governance structure to oversee and manage climate-related risks and opportunities. The Board of Directors and its six standing committees have the overall responsibility for overseeing climate-related issues. The Board is dedicated to sound corporate governance, integrating environmental, social, and governance (ESG) principles into GM's business strategy. The Risk and Cybersecurity Committee manages key strategic, enterprise, and cybersecurity risks, including climate change. It regularly reviews enterprise risk trends and management's action plans to address these risks. GM's metrics and targets are aligned with the Science Based Targets initiative (SBTi) guidelines and the company aims to achieve a 72% reduction in Scope 1 and 2 emissions by 2035.

○ HSBC HOLDINGS PLC

- HSBC's latest Transition Plan, which includes key elements of their TCFD reporting, represents best-in-class disclosure regarding metrics and targets and also strategy. They have clearly identified the key opportunities associated with financing the low carbon transition in different sectors and markets, and identified the role that they can play as a global bank in supporting this. Within this report they also highlight their sectoral financed emissions targets, with details on the methodologies and scenarios they have used, and plans for how they will achieve this on a sector-by-sector basis.
- In Risk Management, HSBC clearly discloses how climate change risks are incorporated into its investment and loan portfolio. In particular, it is highly evaluated for its transparent reporting of the impact on exposure.

○ JPMORGAN CHASE & CO

- JPMorgan Chase & Co.'s thorough TCFD report presents a detailed climate governance structure across five committees with specified responsibilities and meeting frequencies, and outlines the criteria involved in the company's enhanced process for determining whether an investment strategy has integrated ESG into its investment processes. The report also covers the company's six-pillar climate risk framework, and the structure of how climate risk drivers translate into risks to the firm through impact transmission channels. It lists strengths, weaknesses and use cases for carbon exposure metrics and addresses possible emissions data gaps to reflect a fuller picture of their AUM carbon exposure metrics.
- JPM continue to demonstrate best in class climate reporting with their December 2023 Climate Report. The 2023 report provides comprehensive qualitative and quantitative detail across each of the four main topics (governance, strategy, risk management and metrics & targets) and is neatly summarized on page 2 of the report. JPM appear to have a good awareness and understanding of both physical and transition risks across the entire balance sheet (page 21) and have tried to balance the environment and social needs with the economic needs (page 24). Relative to peers, the bank stands out on several topics. Firstly, JPM provide a

good level of disclosure on their framework to assess the clients transition plans (page 11), ahead of their regional peers who continue to be developing assessment tools. Secondly, JPM have articulated not only their 9 sectoral targets (page 27) but also what tools they can leverage in order to decarbonize the high emitting sectors (page 12), the latter point an area that banks are lacking in their disclosure. As such, we believe JPM's overall climate strategy and disclosure are ahead of their regional peers.

○ **NEXTERA ENERGY INC**

- NEE aligns its sustainability reporting to TCFD requirements in a meaningful way, including extensive governance detail and its strategy in contributing to the energy transition.
- Nextera is a leader in reporting on energy transition strategy. Their explanation of board governance is especially effective, with details on how the board engages on climate. Nextera notes that climate is a topic that the entire board engages on at every scheduled board meeting. Nextera has strong metrics, targets, and strategy to execute on those targets, supported by explicit ties to compensation.

○ **ROYAL BANK OF CANADA**

- (1) Governance: The Board and its four committees provide oversight of the Bank's strategic approach to ESG, including climate change, and engage with management on climate-related topics throughout the year. All directors are required to have experience in ESG matters. The design of RBC's CEO and Group Executive compensation incorporates ESG considerations in the short-, medium- and long-term programs to incentivize business leaders in advancing positive change on climate and other issues. (2) Strategy: RBC employs Enterprise-Wide Stress Testing (EWST) and the Comprehensive Capital Analysis and Review (CCAR) as two key programs that provide insights about the financial impact of climate risk on the business. In 2023, RBC advanced their approach by incorporating industry carbon tax projections, and by including operational risk. (3) Risk Management: RBC's approach to climate risk management seeks to integrate climate risk considerations into our existing risk management practices. RBC's Enterprise Policy on Environmental (including climate) and Social Risk (E&S Risk Policy) serves as the foundation for the Bank's approach to managing E&S risks arising from their activities. It outlines their principles for E&S risk management, and sets out standards for how these risks arising from activities are identified, assessed, measured, managed, mitigated, monitored and reported. (4) Metrics & Targets: In terms of emissions from their lending, the bank has set interim sector-specific targets to guide its capital allocation. For instance, the bank is targeting a 47% reduction in emissions intensity for the automotive sector (Scope 1, 2 &3), a 54% reduction in power generation emissions (Scope 1), and Oil and Gas (Scope 1 &2) by 35% and Scope 3 by 11%-29% by 2030. With regards to its operational emissions, the bank aims to reduce GHG emissions by 70% (from a 2018 baseline) by 2025 and source 100% of its global electricity from renewable sources, which it has already achieved.
- RBC's TCFD disclosures stand out for their detailed scenario analysis, which explores different global temperature pathways and their potential impact on the bank's portfolio. They also emphasize the integration of climate-related risks in their lending and investment strategies, demonstrating strong governance and strategic alignment with the TCFD framework across various parts of the organization.

○ **SSE PLC**

- SSE's reporting includes comprehensive disclosure of all emission scopes and demonstrates particularly strong reporting regarding certain TCFD pillars. SSE's report includes extensive disclosure on climate governance oversight and the management of climate risks. Additionally, SSE's reporting on metrics and targets is robust, with extensive disclosure of progress toward its 2030 emissions goals. Moving forward, SSE aims to align its climate reporting with the International Sustainability Standards Board (ISSB) standards and the EU Corporate Sustainability Reporting Directive (CSRD).
- SSE is the second largest UK utility by market cap. They have reported against the TCFD framework for a number of years and produce a number of documents as part of their annual reporting suite which materially address the TCFD framework, including a TCFD aligned reporting section in the Annual Report. In addition, they produce an Annual Sustainability Report and Net Zero Transition Report which covers much of the content of TCFD as well as progress achieved in the year in review. SSE's reporting is particularly detailed and provides a lot of information around progress against decarbonization targets to date, including the factors that have driven these reductions, as well as a good level of detail on their strategy for achieving their longer term targets and the levers that will be used to achieve them.

○ **WALMART INC**

- WMT aligns its industry-leading disclosures with TCFD requirements and is explicit about how these areas of focus are aligned with the company's overall purpose to create shared value.
- Robust reporting across all 4 pillars of TCFD reporting, with specific nuance and leadership on their approach and explanation of physical risk assessments. Their assessment is interactive and detailed, and they tie very specific, material assessments to financial impacts very clearly - i.e. "predicted changes to historical heating and cooling costs" with projected cost impacts by 2030.

[Reference]

○ **Purpose of the “Excellent TCFD Disclosure” release**

GPIF has made many ongoing efforts to promote engagement based on the concept that “constructive dialogue(engagement) between asset managers and investee companies are important to enhance long-term investment returns.

“Excellent TCFD disclosure” started in FY 2021 as one of these efforts. We request our external asset managers to select the best practices for disclosure in line with the recommendations of TCFD and publish the results with the aim of encouraging companies to enhance corporate disclosure necessary for constructive dialogue.

○ **Number of respondents**

GPIF asked 31 external asset managers entrusted with foreign equity investment to nominate up to five companies that provided excellent TCFD disclosure and received responses from 24 asset managers.

○ About TCFD

TCFD was established by the Financial Stability Board (FSB) at the request of the G20 Finance Ministers and Central Bank Governors Meeting. In June 2017, the TCFD published voluntary recommendations to encourage disclosure on the financial impact of climate-related risks and opportunities to enable appropriate investment decisions by investors.

Concurrent with the release of its 2023 status report on October 12, 2023, the TCFD has fulfilled its remit and disbanded. The FSB has asked the IFRS Foundation to take over the monitoring of the progress of companies' climate-related disclosures.

GPIF also requested its external asset managers entrusted with domestic equity investment to nominate "excellent TCFD disclosure" and the result was posted on its Japanese website. (https://www.gpif.go.jp/esg-stw/202501_excellent_TCFD_disclosure_j.pdf)

The English version will be posted later. (<https://www.gpif.go.jp/en/investment/stewardship-activities.html>)