

Climate Action 100+



Global Investors Driving Business Transition



Climate Action 100+ Net Zero Company Assessments Summary Results, March 2021



Summary

- The CA100+ Net Zero Company Benchmark establishes a high ambition for companies across all sectors and regions around the world — no focus company is YET delivering what is needed to stabilize the climate at relatively safe levels for all of humanity.
- Increasingly, companies are setting net zero by 2050 (or sooner) commitments, however, many more lack the short-and medium-term GHG reduction targets required for them to be on track.
- Very few of the CA100+ companies – which comprise the highest carbon emitting corporations – have defined the strategies, new business models and capital investment plans necessary to decarbonize.
- CA100+ is deliberately (and urgently) moving the conversation from a focus on corporate emissions target setting to an emphasis on companies' decarbonization strategies, low-carbon business models and related capital expenditures required to build the net zero company of the future.
- Companies are starting to strengthen and align their climate governance, lobbying (both direct and indirect) and TCFD disclosure, but much more is required for corporates to refocus their operations to succeed in a low-carbon future.
- Over the next 12 months, the CA100+ Net Zero Company Benchmark will continue to evolve and companies will be reassessed to determine the individual progress on each of the specific indicators.

Contents

- Overview of the CA100+ Net Zero Company Benchmark
- Summary of **Company Disclosure Assessments**
(January 22nd cut-off date for all companies and all indicators/sub-indicators/metrics.)
- Additional Details on the Company Disclosure Assessment Methodology
- Summary of **Capital Allocation Assessments**
(Cut-off dates vary depending on the sector and are shown on the website.)

Data sources for company assessments

Two distinct data sets and analytical methodologies.

- 1. Disclosure Indicators:** Assess companies on specific criteria aligned with the three CA100+ commitment areas. **Transition Pathway Initiative (TPI)** and **FTSE Russell** are collecting and analysing companies' publicly disclosed data for the scorecards. (Note – a link to the **InfluenceMap** company lobbying assessments is also included for each company as available.)
- 2. Capital Allocation Indicators:** **Carbon Tracker (CT)** and **2 Degrees Investing Initiative (2Dii)** are also analysing companies' capital expenditures (CAPEX) and output relative to a range of climate change scenarios to provide additional insights (for certain sectors).

More information and supporting materials relating to the Benchmark can be found on the [CA100+ website](#). This includes the company assessments and more details on the data, framework and methodologies (including Frequently Asked Questions).

Any additional questions or feedback can be directed to benchmark@climateaction100.org.



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Climate Action 100+ Net Zero Company Benchmark: Disclosure Indicators (assessed by TPI)

10 DISCLOSURE INDICATORS

- 1 NET-ZERO GHG EMISSIONS BY 2050 (OR SOONER) AMBITION
- 2 LONG-TERM (2036 - 2050) GHG REDUCTION TARGET
- 3 MEDIUM-TERM (2026 - 2035) GHG REDUCTION TARGET
- 4 SHORT-TERM (2020 - 2025) GHG REDUCTION TARGET
- 5 DECARBONIZATION STRATEGY
- 6 CAPITAL STOCK ALIGNMENT
- 7 CLIMATE POLICY ENGAGEMENT
- 8 CLIMATE GOVERNANCE
- 9 JUST TRANSITION [not assessed in Q1 2021]
- 10 TCFD DISCLOSURE

- 10 **Indicators**
- Indicators have **1-3 Sub-indicators**
- Sub-indicators have **1-2 Metrics**

Disclosure Indicators: How are companies assessed?

Companies have been **assessed** at three levels:

- **Indicators:** Specific area the company is being assessed on (10 indicators overall).
- **Sub-indicators:** Component of indicator that divides it into specific areas of interest.
- **Metrics:** Highest resolution assessment that separates sub-indicators into components, creating the opportunity for evaluation across the subject of attention.

Note – any sub-indicator only has two metrics (a + b). Indicators can have multiple sub-indicators and metrics (e.g. indicator 7 = three sub-indicators and six metrics).

Metrics can also be Not Applicable and Not Assessed. Where this is the case, the metric is not included as part of the threshold for Yes / No / Partial.

Each **metric** is assessed with a binary **Yes / No**, based on information and evidence published by the company.

Aggregation at the sub-indicator and indicator levels then use the following system:

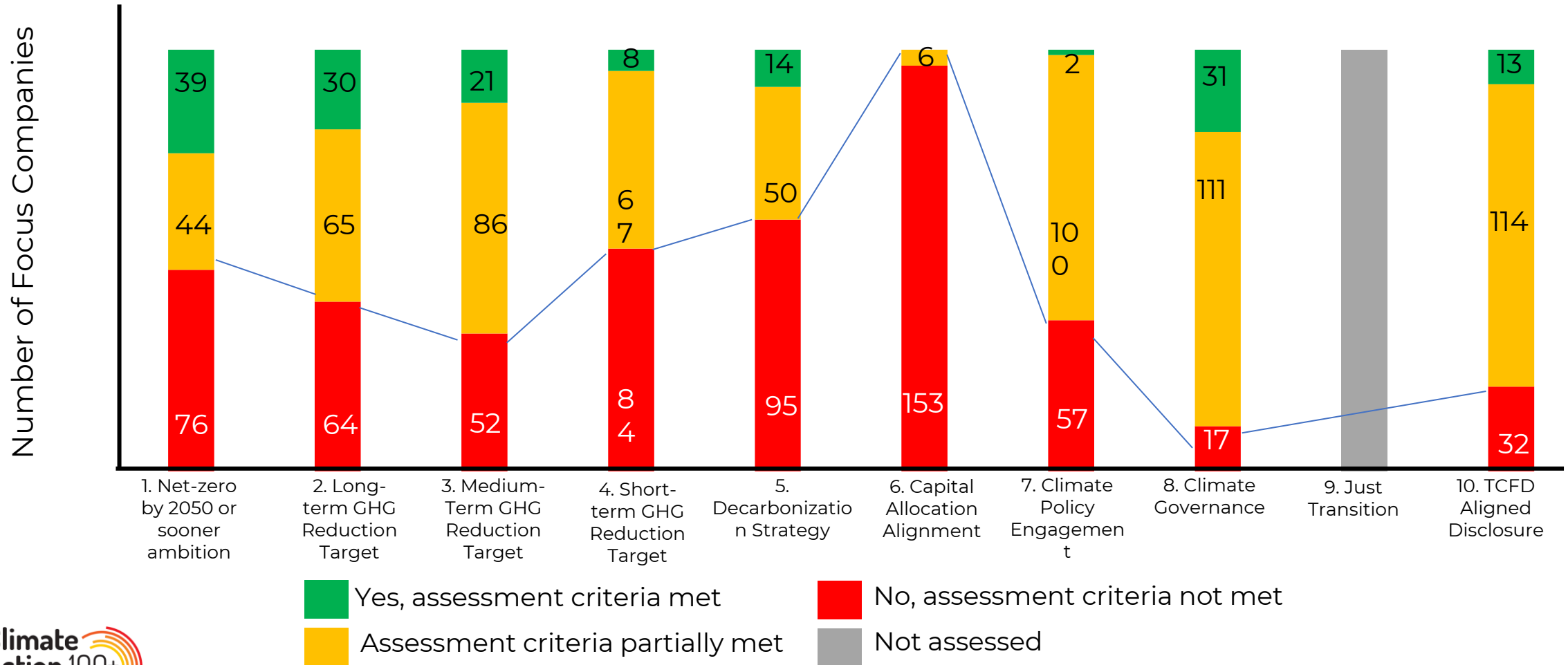
- **Yes** = When all metrics for a sub-indicator or indicator are Yes
- **No** = When all metrics for a sub-indicator or indicator are No
- **Partial** = When at least **one** metric for a sub-indicator or indicator is Yes

Progress against original high-level CA100+ goals, but detail still to come

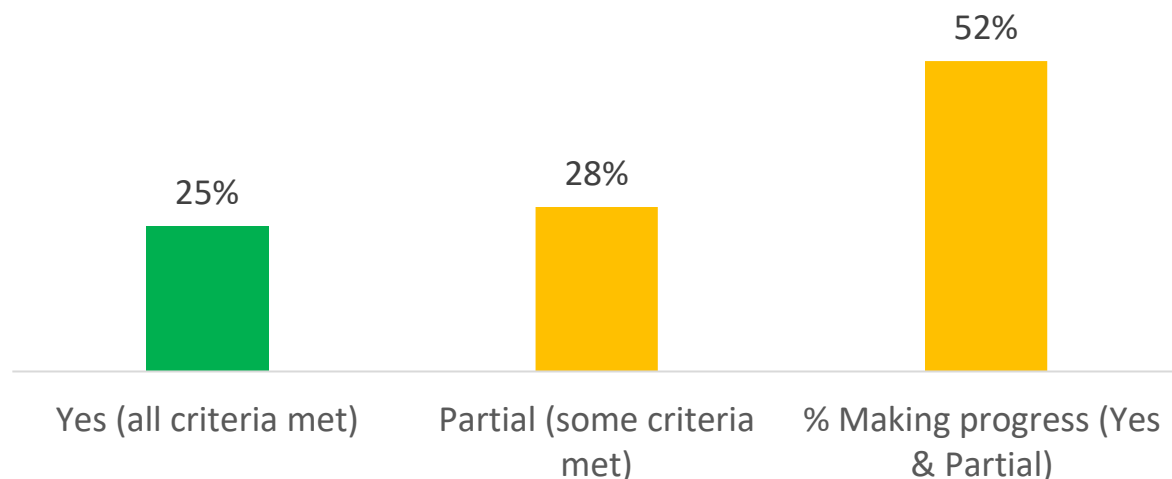
- The benchmark builds on the original three high level goals of CA100+ and **raises the bar** by codifying what companies should disclose, so **investors can have confidence** they have developed a **comprehensive net zero transition plan**.
- Looking at the indicators/sub-indicators that most closely reflect original high-level goals, we observe a **good foundation of progress**:
 - **Aligning emissions**: **52%** of the world's largest GHG emitters are now committed to achieve net zero across all or some of their emissions footprint
 - **Climate governance**: **87%** of companies now have a board level committee or have nominated an individual director to hold oversight of the climate change strategy
 - **TCFD reporting**: **82%** of world's largest GHG emitters are now committed to or already have produced a TCFD report

Company Assessment Results by Indicator

Note: Companies scored 'partial' if they received a 'YES' for at least one, but not all, of the indicators' metrics.

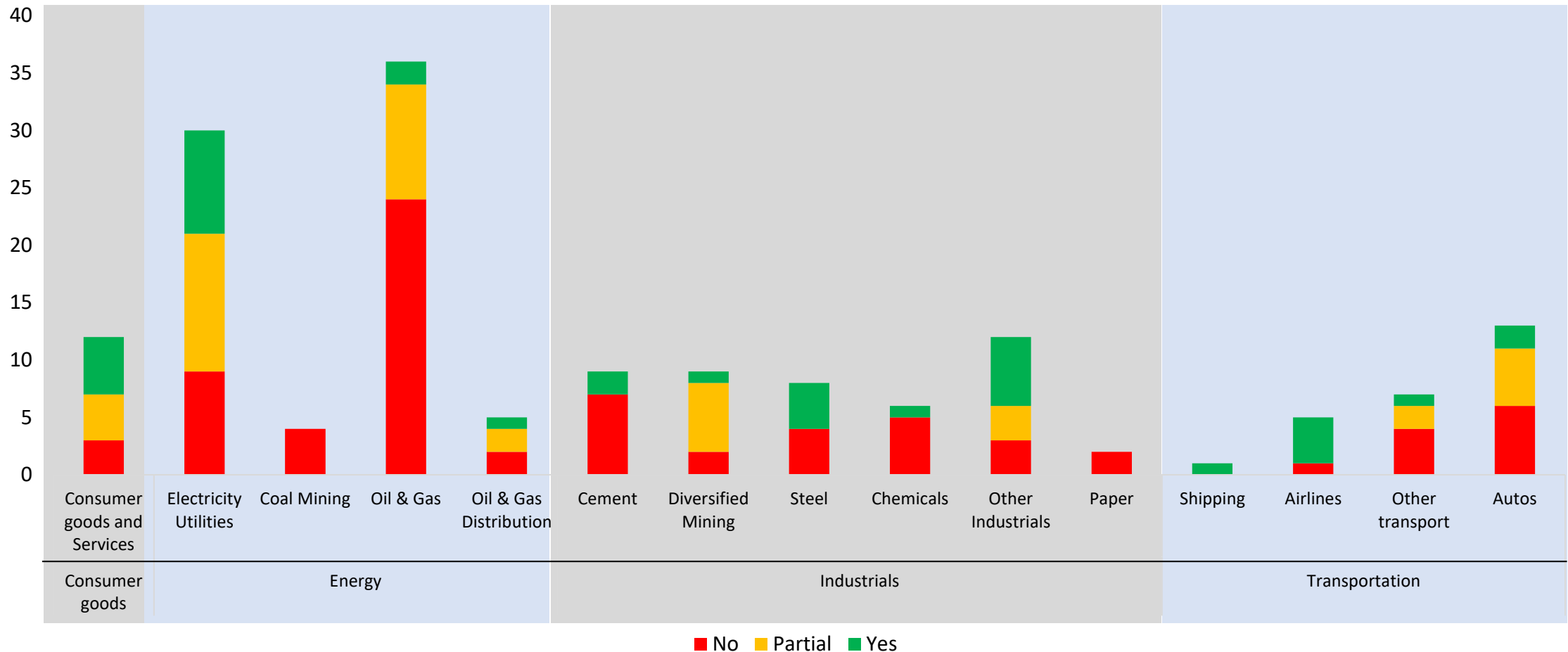


Indicator 1 – Net Zero Commitment (covering all material emissions)



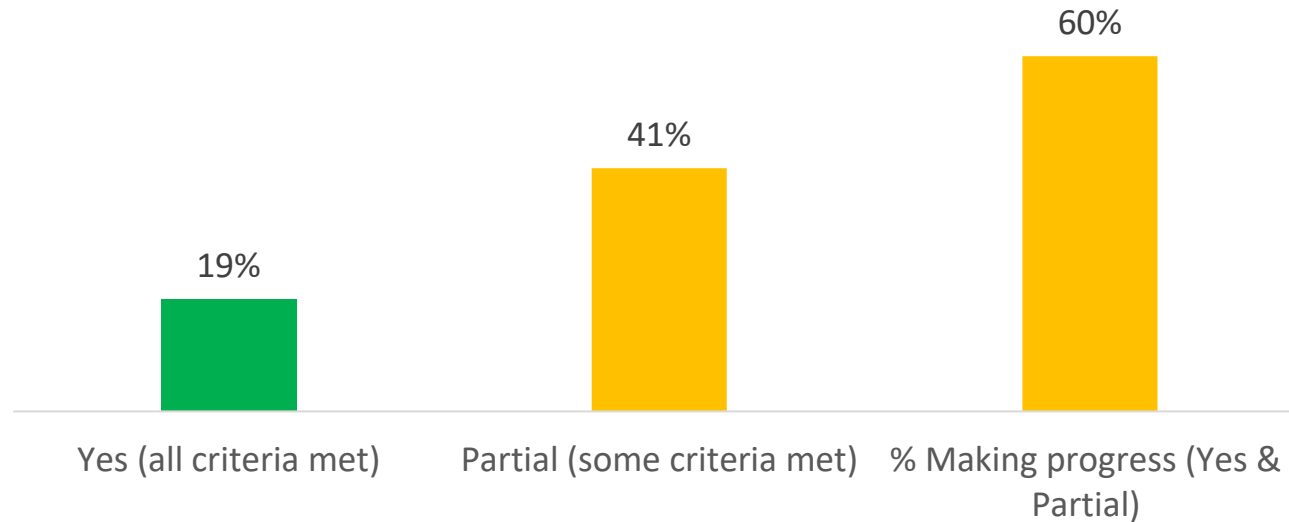
- **First of its kind assessment of quality** of net zero commitments across range of sectors.
- **52% have made a net zero commitment** that covers at least scope 1 and 2 GHG emissions.
- **25% have comprehensive net zero commitments** that covers all material GHG emissions.
- Full assessment strongest from **European companies** (38%) and **Power companies** (25%), followed by Steel, Consumer Products and Airlines.

Indicator 1 – Results by sector



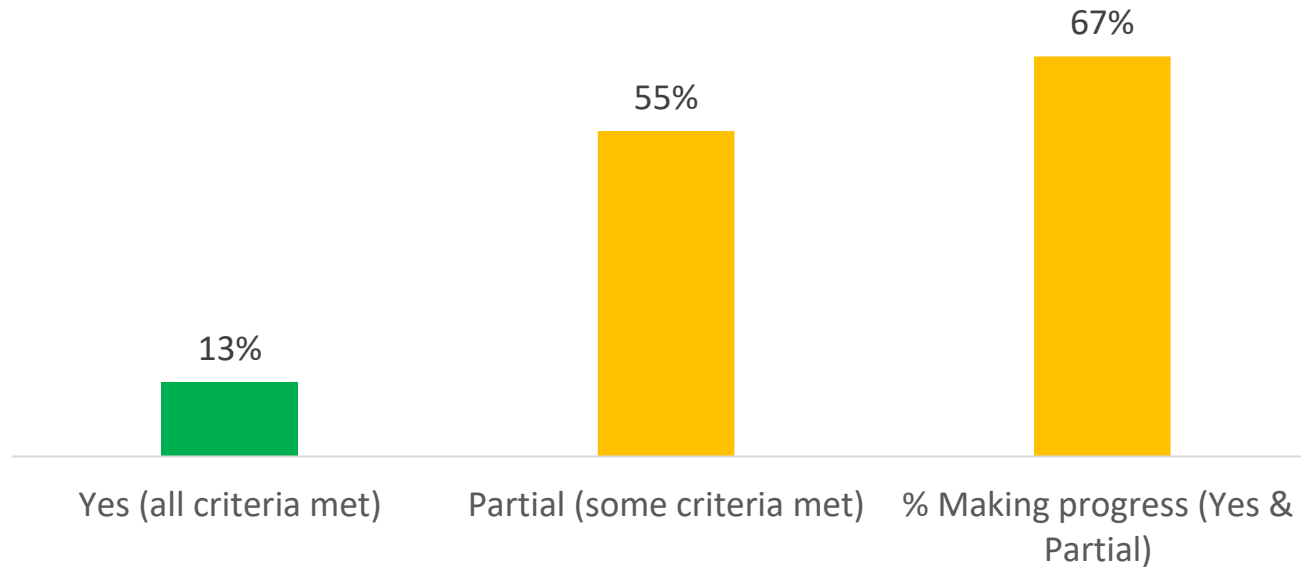
- **Airline sector** (80%) has highest proportion of **net-zero targets that cover both >95% of Scope 1+2 emissions and applicable Scope 3 emissions**.
- Diversified Mining (67%) has highest proportion of companies whose **targets do not cover applicable Scope 3 emissions**, out of the sectors that set net-zero targets.
- **Coal Mining and Paper** (both 100%) has highest proportion of companies that **have not set net-zero targets**, followed by **Chemicals** (83%) and **Cement** (73%).

Indicator 2 – Long-Term Target covering all material emissions



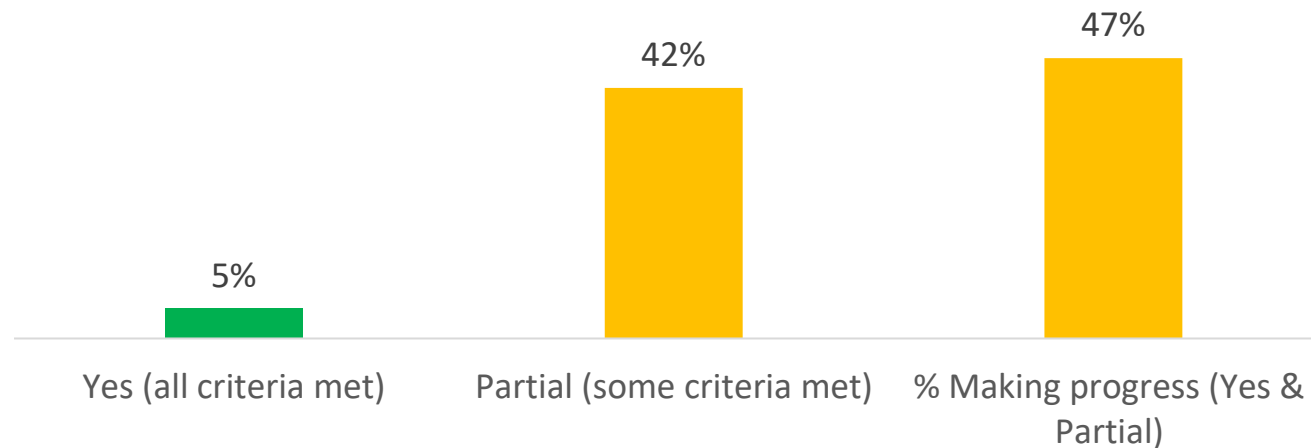
- **Long term targets** achieved highest level of **Yes (all criteria met)** on three target indicators.
- **19% of companies achieve Yes (all criteria met)** versus 13% and 5% respectively for medium- and short-term targets.
- **European companies** account for 18 of 30 companies achieving Yes (all criteria met), followed by North America (7) and Asia (5). No companies from Oceania achieve Yes (all criteria met).
- Overall, **60% of companies have a long-term target** with differing levels of ambition and scope.

Indicator 3 – Medium-Term Target covering all material emissions



- Levels of **yes (all criteria met)** are lower for medium-term targets than for long term targets, at 13% of all companies however the overall proportion of companies that have some variety of medium-term target is higher than for long term targets at 67% v 60%.
- Looking more closely at the performance of companies that have a medium-term target that achieves Partial Assessment the key areas for improvement are:
 - **Target alignment (3.3):** Only 6% (5 of the 87) companies with a Partially Compliant medium-term-targets are aligned with B2DS let alone net zero
 - **Target scope (3.2b):** 27% (17 of 63) of the companies that have material scope 3 emissions that have set a Partially Compliant medium-term target have not included all material scope 3 emissions in the scope of their target.

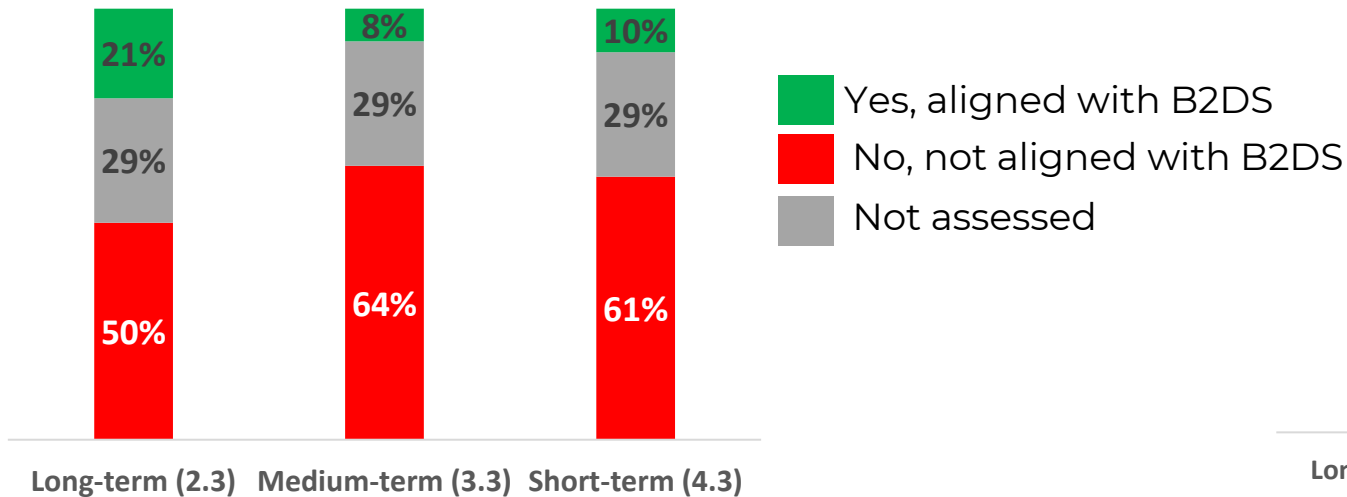
Indicator 4 – Short-Term Target covering all material emissions and is aligned



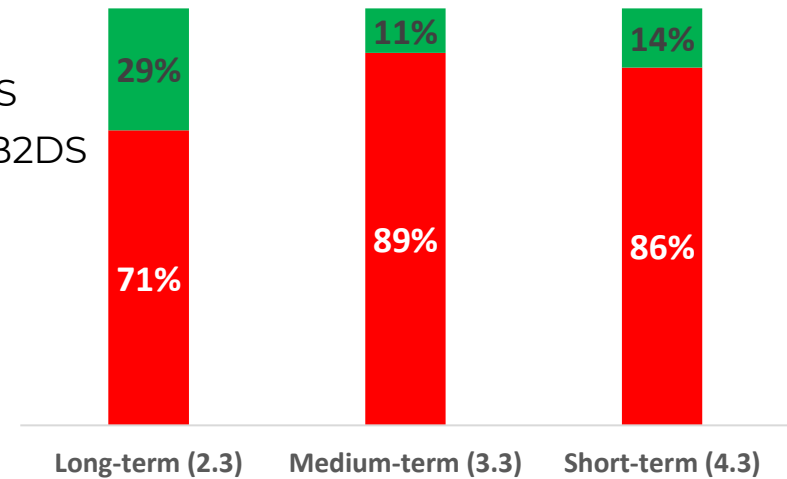
- Levels of **yes (all criteria met)** are lowest for short term targets at 5% versus 13% and 19% for medium- and long-term targets, respectively.
- Overall levels of short-term target setting are lower than for medium- and long-term targets (47% v 67% and 60% respectively). We believe this is due to the following reasons:
 - Companies have historically used 2020 as a headline target year as it represents the end of the decade. A disproportionate number have done so and are yet to update their short-term targets while others are treating medium-term targets also as short-term targets.
 - short-term targets often cover just scope 1 GHG emissions or a particular business segment to operationalize delivery meaning they do not score on coverage.

Indicators 2-4 – Deep dive on target alignment levels (sub-indicators 2.3, 3.3 and 4.3)

Company GHG Reduction Target – All Companies (%)



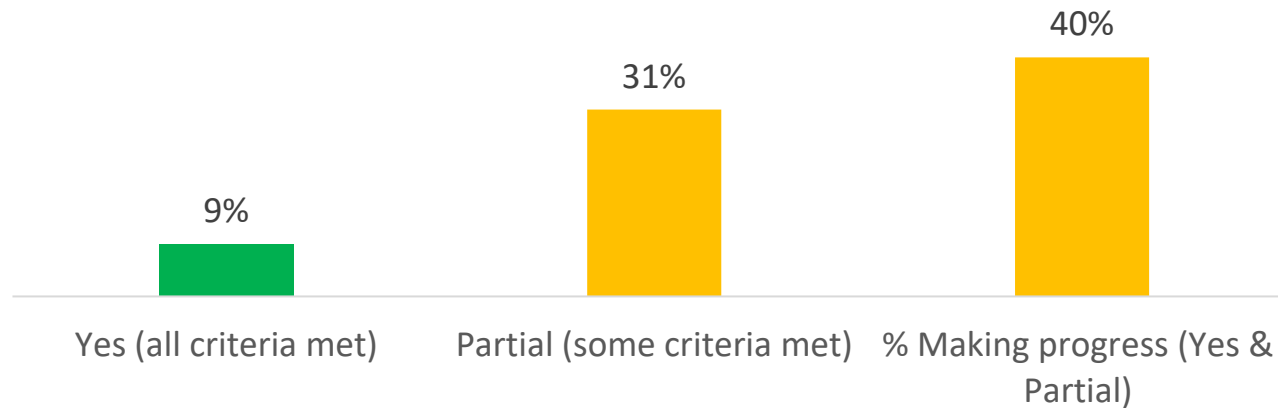
Company GHG Reduction Target – Assessed Companies (%)



Where companies have set targets, alignment with B2DS remains limited let alone alignment with net zero by 2050.

This sub-indicator is based on TPI's Carbon Performance methodologies which applies the Sectoral Decarbonisation Approach (SDA), a science-based method for companies to set GHG reduction targets necessary to stay within reference climate scenarios. In the absence of a credible 1.5°C scenario, companies have been measured against a best-available below 2°C scenario. The intent is for the long-term target to be aligned with a trajectory to achieve the Paris Agreement goal of limiting global temperature increase to 1.5°C with low or no overshoot (equivalent to IPCC Special Report on 1.5° Celsius pathway P1 or net-zero emissions by 2050). Company assessments will be adjusted when a credible 1.5°C scenario becomes available. If a company's current emissions intensity is aligned with the assessment scenario used (or will be aligned in the short or medium term), it is assumed that the intensity will continue to be aligned in the long term.

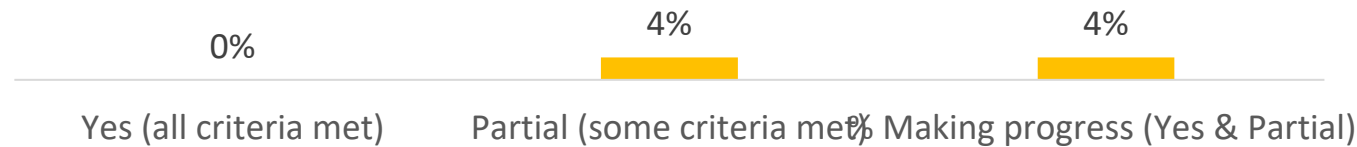
Indicator 5 – Quantified decarbonisation strategy and green revenues



- **9% of companies have achieved Yes (all criteria met)** while a further **31% achieve Partial Assessment** on at least one element of the indicator.
 - **Only 16 companies** are currently reporting green revenues*.
 - **Only 19%** of companies making progress on this indicator have set targets to increase green revenues.
- **North American companies** account for 6 of 14 companies to achieve Yes (all criteria met), followed by Europe (5) and Oceania (2). No Asian companies achieved Yes with this indicator.
- **Power companies** accounted for 45% of companies to achieve Yes (all criteria met).

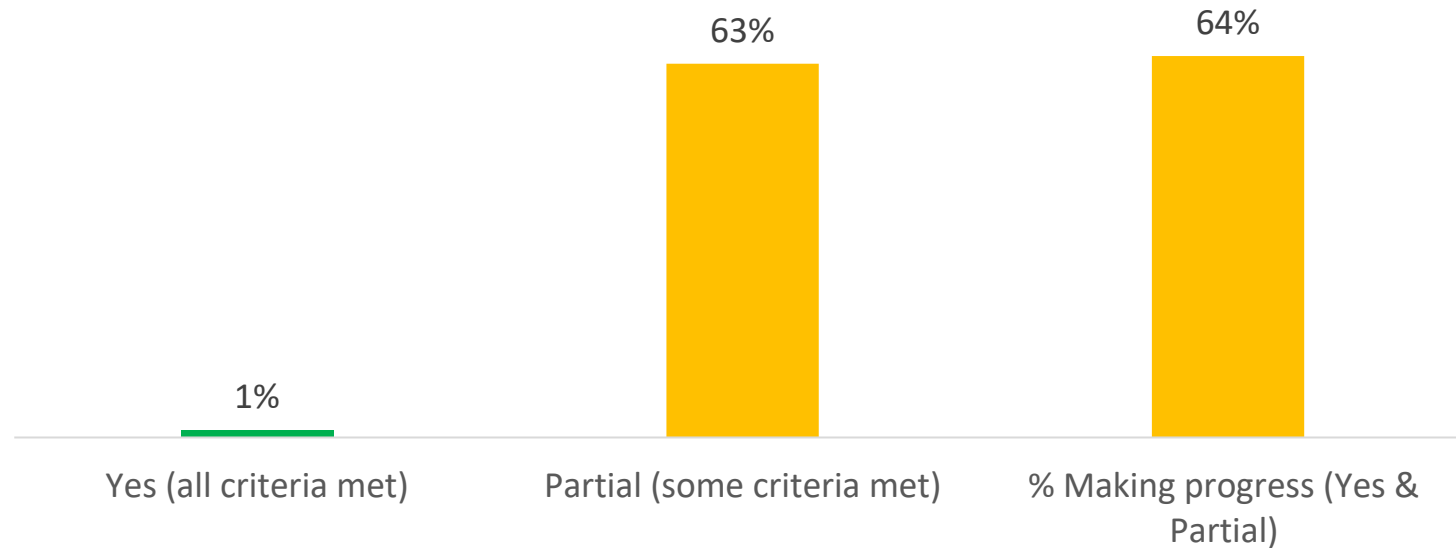
*This reflects disclosure of green revenues (for European companies only). When using third party data to assess green revenue generation performance against indicator 5.2a, this increases. Companies headquartered outside of Europe have not been assessed on this sub-indicator (5.2) in this iteration of the benchmark.

Indicator 6 – Capex alignment testing comprehensively in place



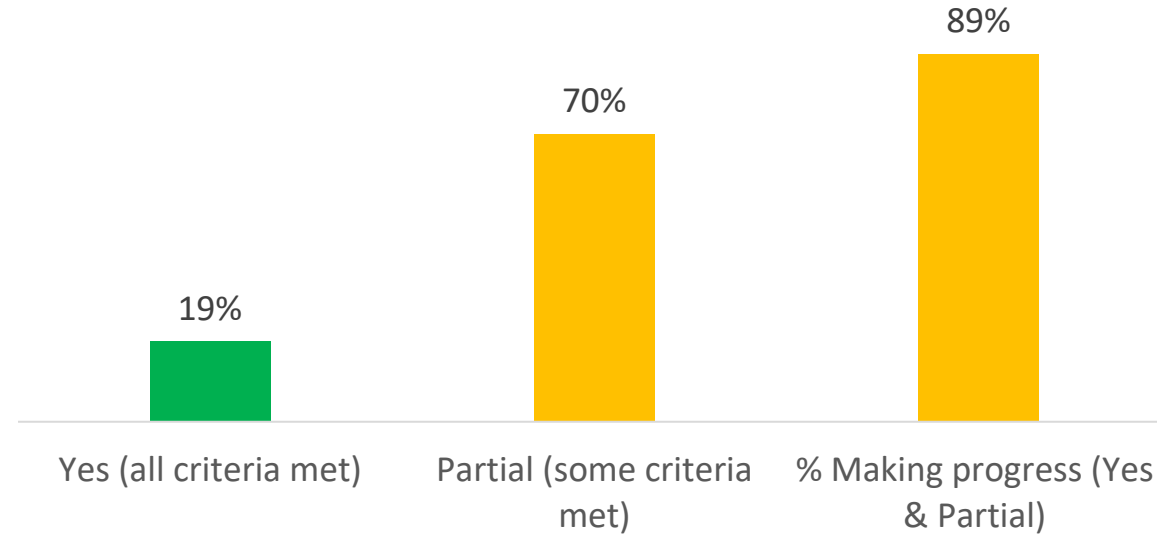
- **Only 6 companies score partially** (BP, Repsol, Total, Unilever, RWE and WEC Energy).
 - 5 located in Europe, 1 in North America
 - 3 companies in Oil & Gas sector
- **No companies** commit to align capital expenditures with 1.5 degrees or provide key details on how capital expenditures are consistent with 1.5 degrees.
- The finding shows **a huge gap in corporate reporting on climate risk management.**

Indicator 7 – Robust climate policy engagement disclosure



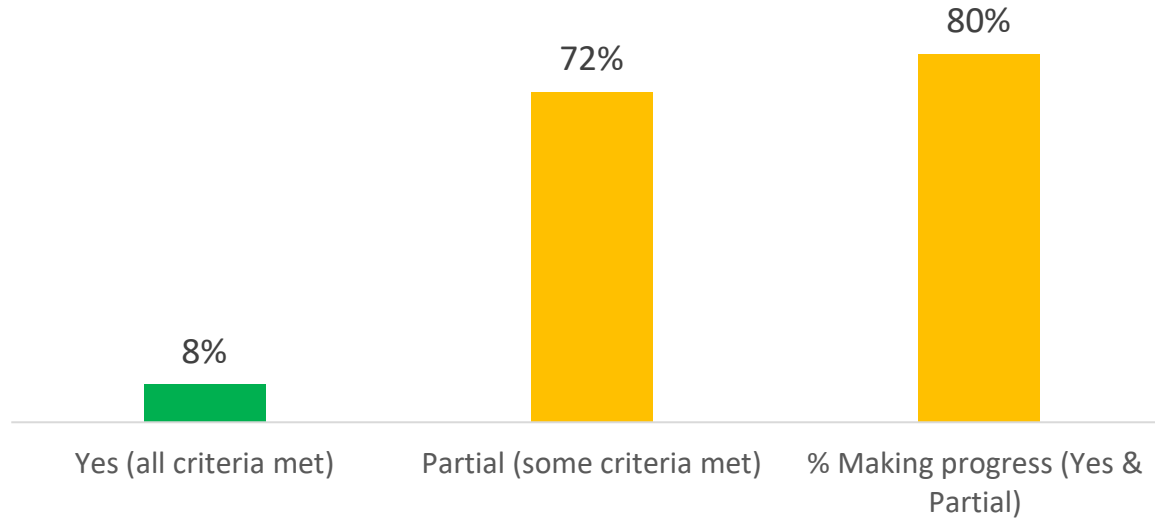
- In order for net zero emissions to be achieved it is essential for public policy to be designed to deliver this objective. Companies have a role to play in ensuring that both the direct and indirect lobbying they undertake is consistent with the goal of achieve net zero emissions if their commitments to achieve it are to be viewed as credible.
- Only 2 companies (Eni and Rio Tinto) have achieved Yes (all criteria met) with this indicator although 63% have scored on at least one element of the indicator. The indicator has seven sub-elements and is therefore a challenging indicator on which to achieve Yes overall. A number of companies have scored on all but one of the sub-elements.
- **A group of 18 companies have produced comprehensive trade association reviews.** Of these companies, 13 are located in Europe, 4 in Oceania and 1 in Africa. None are located in North America or Asia.

Indicator 8 – Robust climate governance in place



- This indicator assesses how the board is overseeing the climate strategy and whether executives are being incentivized to deliver business wide GHG targets.
- Overall, the assessment has found that **89% of companies have instituted some level of board oversight** but that at only 19% of companies do the measures undertaken meet the full expectations of the benchmark.
- **Perhaps most importantly only 18 have tied remuneration of at least one senior executive to the GHG targets of the company (as reflected in indicators 2, 3 and 4).**

Indicator 10 – Robust TCFD reporting in place



- There is a high level of commitment to TCFD, with **80% of companies have committed to or have already produced a TCFD labelled report.**
- However **only 8% of companies have been assessed to produce high quality 1.5-degree scenario analysis.**
- Of **13 companies** to achieve Yes (all criteria met), 8 are located in Europe, 2 in Oceania, 2 in Asia and 1 in North America – and across a range of sectors.

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Summary of contingencies

Indicator 1	
1.1b	→ 1.1a

Indicator 2,3,4	
2.2a, 2.2b	→ 2.1
3.2a, 3.2b	→ 3.1
4.2a, 4.2b	→ 4.1

Indicator 5	
5.1	→ 2.1,3.1,4.1

Indicator 6	
6.2b	→ 6.2a

Indicator 7	
7.3b	7.3a

Indicator 8	
8.2b	2,3,4

Indicator 10	
10.2b	10.2a

GHG emissions target Sub-indicators 2.3, 3.3, 4.3

These Sub-indicators measure the company's emissions intensity using a **Beyond 2°C Scenario (B2DS)**.

They are based on TPI's Carbon Performance (CP) Assessments, which are based on the Sectoral Decarbonisation Approach.

Companies in the following sectors will be assessed:

- ✓ Energy: Oil and gas, electricity utilities
 - ✓ Transport: autos, airlines, shipping
 - ✓ Industrials: cement, steel, aluminum, paper, diversified mining
-
- Sub-indicators assess **emissions intensity** and not absolute emissions.
 - They indicate a company's alignment with a B2DS at three points in time (2025, 2035, 2050). The full trajectory can be obtained from [TPI website](#).
 - The question of trajectories/overshoot is important, e.g., companies that plan (or assume) they will do everything in 2049 ahead of a 2050 deadline.

Sector classification & scope 3 emissions application*

Cluster	Sector	Scope 3 applicable?
Energy	Oil and gas	Yes (use of sold product)
	Oil and gas distribution	Yes (use of sold product)
	Electricity utilities	Utilities with oil/gas distribution businesses (use of sold product from distribution businesses)
	Coal Mining	Yes (use of sold products)
Transport	Autos	Yes (use of sold products)
	Airlines	No
	Shipping	No
	Other Transport	Yes (use of sold products)

Cluster	Sector	Scope 3 applicable?
Industrials	Aluminum	No
	Cement	No
	Steel	No
	Chemicals	Yes (purchased goods and services and use of sold products)
	Paper	No
	Diversified Mining	Yes (processing of sold products; for coal manufacturers also use of sold products)
	Other industrials	On a case by case basis (non-electricity use of sold product)
Consumer goods & services	Consumer goods and services	Yes (purchased goods and services)

* Relevant to criteria for Indicators 1, 2, 3, 4 and 5.

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Capital Allocation Indicators: Electric Utilities (Indicators 1-4 provided by Carbon Tracker)

- 1. COAL PHASE-OUT:** Has the company announced a full phase-out of **coal units by 2040** that is consistent with CTI's interpretation of the IEA's Beyond 2°C Scenario (B2DS)?
- 2. GAS PHASE-OUT:** Has the company announced a full phase-out of **natural gas units by 2050** that is consistent with CTI's interpretation of the IEA's Beyond 2°C Scenario?
- 3. ALIGNMENT OF COAL PHASE-OUT:** The percentage of the company's operating and planned **coal capacity** that is aligned with CTI's interpretation of the IEA's Beyond 2°C Scenario.
- 4. ALIGNMENT OF GAS PHASE-OUT:** The percentage of the company's operating and planned **gas capacity** that is aligned with CTI's interpretation of the IEA's Beyond 2°C Scenario .

Results: Capital allocation assessments (33 electric utilities)

- 1. Carbon Trackers' analysis of the full phase-out of coal units by 2040** that is consistent with the IEA's Beyond 2°C Scenario (B2DS).
 - 10 companies have announced full retirement that's aligned with Paris pathway
 - 3 companies have announced a full retirement that is not yet consistent with a Paris-aligned pathway
 - 13 announced only partial retirements so far
 - 7 have not announced or there is insufficient data on retirements
- 2. Carbon Trackers' analysis of the full phase-out of natural gas units by 2050** that is consistent with the IEA's Beyond 2°C Scenario (B2DS).
 - Only 1 company has announced full retirement that's aligned with Paris pathway
 - Only 1 company have announced a full retirement that is not yet consistent with a Paris-aligned pathway
 - Only 1 company has announced only partial retirements so far
 - 30 companies have not announced or there is insufficient data on retirements

KEY FINDINGS: Almost all utilities are lagging in gas-phase out, and most haven't even announced or provided data on gas phase-out yet. Thus natural gas phase out is a top priority for investor engagement with focus companies. Additionally, while greater progress has been made on coal phase-out, two-thirds of companies need to accelerate retirements in order to align with the Paris Agreement goals.

Results: Capital allocation assessments (33 electric utilities)

3. **Carbon Trackers'** analysis of the **percentage of the company's operating and planned coal capacity that is aligned** with the IEA's Beyond 2°C Scenario (B2DS). **Note: Perfect alignment = 100%**
 - 5 companies have 100% alignment
 - 6 companies have greater than 50% alignment
 - 18 companies have less than 50% alignment
 - For 4 companies no coal plants were identified
4. **Carbon Trackers'** analysis of **the percentage of the company's operating and planned gas capacity that is aligned** with the IEA's Beyond 2°C Scenario (B2DS). **Note: Perfect alignment = 100%**
 - 1 company has 100% alignment
 - 20 companies have greater than 50% alignment
 - 11 companies have less than 50% alignment
 - For 2 companies no gas plants were identified

KEY FINDINGS: Focus companies have made some progress in re-aligning their coal capacity with the Paris Agreement goals, there is still much greater realignment required. This is also true – to only a slightly lesser degree – for natural gas alignment with Paris.

Capital Allocation Indicators: Electric Utilities (Indicators 5-6 provided by 2 Degrees Investing Initiative)

Illustrative Company	5. 2021 Technology Mix vs Sector Average*	6. IEA Scenario Alignment of Technology (based on 2026 forecasts)**
Coal	Ahead	Above SDS >2
Oil	Behind	Above SDS >2
Gas	Aligned	Below B2DS <1.75C
Nuclear	Behind	Above SDS >2
Hydro	Ahead	Above SDS >2
Renewables	Behind	Above SDS >2

Results: Capital allocation assessments (33 electric utilities)

5. 2DII assessment electric utilities' 2021 technology mix versus the sector average.*

This indicator assesses the technology mix of the company in 2021 compared to the market in 2021. The analysis is conducted on the technology level, meaning 2Dii compares the technology share of the company with the technology share of the sector average. For example, if the market's power technology mix consists of 20% of coal power, while the company's technology mix consists for 17% of coal power, then the company is 'ahead' of the market, implying that it's greener than the market in terms of coal power.

Technology/ # of Companies	Ahead	Slightly Ahead	Aligned	Slightly Behind	Behind
Coal	17	4	0	3	9
Oil	21	0	3	0	9
Gas	9	1	1	1	21
Nuclear	13	1	0	0	19
Hydro	4	0	0	1	28
Renewables	12	0	1	3	17

KEY FINDINGS: The majority of focus list companies are ahead of the sector average in their use of coal and oil, i.e, these companies produce less power from coal and oil than the sector average. However, the companies are behind the market, i.e., less green in their power production from other technologies.

*Sector average is based on the universe of electric utilities companies that 2Dii analyses.

Results: Capital allocation assessments (33 electric utilities)

6. **2DI's assessment** of IEA scenario alignment for each technology (based on 2026 forecasts)
 This indicator analyses the company's planned capacity additions and retirements (for power companies) with IEA scenarios and identifies the scenario pathway to which it most closely corresponds per technology. For example, it assesses whether the company is planning to build more windmills and solar farms, and to retire coal plants, and with which scenario that is most closely aligned.

Technology/ # of companies	Significantly above SDS >3 degrees Celsius	Above SDS >2 degrees Celsius	Below SDS 1.75 – 2 degrees Celsius	Below B2DS < 1.75 degrees Celsius
Coal	21	6	1	5
Oil	33	0	0	0
Gas	9	9	8	7
Nuclear	10	0	18	5
Hydro	31	0	0	2
Renewables	29	3	0	1

KEY FINDINGS: Based on 2026 forecasts, only 5 utilities have aligned their planned coal capacity with a the B2DS < 1.75 IEA scenario. Only 7 utilities have i.e. aligned their planned gas capacity with a B2DS <1.75 IEA scenario. And ALL of the 33 companies have planned oil capacity that is significantly above the IEA SDS > 3 degrees Celsius.

Capital Allocation Indicators: upstream oil & gas companies (Carbon Tracker)

- 1. COMPANY'S RECENT ACTIONS:** How much of the company's 2019 upstream CAPEX is inconsistent with the IEA's Beyond 2°C Scenario (B2DS)? (in US\$ billion)
- 2. IMPAIRMENT PRICE INDICATOR:** Are the company's commodity price forecasts going up, going down, or flat?
- 3. IMPAIRMENT PRICE INDICATOR:** What is the maximum price in the company's commodity price forecast? (shown in 2020 real terms Brent equivalent US\$ prices (and the year of maximum price))
- 4. CAPEX ANALYSIS:** What is the percentage of the company's potential future oil & gas CAPEX that is inconsistent with the IEA's B2DS scenario?

Results: Capital allocation assessments (33 upstream oil & gas companies)

1. **Carbon Trackers'** analysis of the **company's recent actions**, assessing how much of the company's 2019 upstream oil & gas CAPEX is inconsistent with the IEA's Beyond 2°C Scenario (B2DS)? (in US\$ billion)
 - o 12 companies had more than \$1 billion in CAPEX (2019) inconsistent with B2DS
 - o 3 of those companies had more than \$10 billion in CAPEX (2019) inconsistent with B2DS
 - o 13 companies had less than \$1 billion in CAPEX (2019) inconsistent with B2DS
 - o 8 companies had no identified CAPEX in 2019 inconsistent with B2DS
2. **Carbon Trackers'** analysis of **an impairment price indicator**, assessing if the company's commodity price forecasts are going up, going down, or flat.
 - o 17 companies do not disclose a commodity price forecast
 - o 12 companies forecast a price that is going up
 - o 4 companies forecast a price that is flat

KEY FINDINGS: About half of the companies do not disclose a commodity price forecast, which could be indicative of a high price forecast that the company doesn't want to share, and in many cases is correlated with high unnecessary CAPEX as well.

Results: Capital allocation assessments (33 upstream oil & gas companies)

3. **Carbon Trackers'** analysis of the **impairment price indicator**, assessing the maximum price in the company's commodity price forecast (shown in 2020 real terms Brent equivalent US\$ prices) and the year of maximum price.
 - o About half of the companies (17 of 33) do not disclose a commodity price forecast
 - o The maximum price forecasted is \$70, and the minimum price forecasted is \$50
4. **Carbon Trackers'** analysis of the company's **CAPEX**, assessing the percentage of the company's potential future oil & gas CAPEX that is inconsistent with the IEA's B2DS scenario.
 - o 6 companies have **less than 15%** of future CAPEX inconsistent with the IEA's B2DS scenario
 - o 6 companies have **25-50%** of future CAPEX inconsistent with the IEA's B2DS scenario
 - o 11 companies have **51-75%** of future CAPEX inconsistent with the IEA's B2DS scenario
 - o 10 companies have **76-100%** of future CAPEX inconsistent with the IEA's B2DS scenario

KEY FINDING: For the majority of companies (21 out of 33) their most of their future CAPEX is inconsistent with the IEA's Beyond 2°C Scenario. Only 6 oil & gas companies stand out having less than 15% of their future CAPEX inconsistent with the IEA's B2DS scenario.

Capital Allocation Indicators: Automotive Companies (2 Degrees Investing Initiative)

Illustrative Company	1. 2021 Technology Mix vs Sector Average*	2. IEA Scenario Alignment of Technology (based on 2026 forecasts)**
Internal combustion engine	Slightly Behind	Above SDS >2
Hybrid	Behind	Above SDS >2
Electric vehicle	Ahead	Below B2DS <1.75C

* Assessment outcomes include: Behind (>15% negative deviation); Slightly Behind (5-15% negative deviation); Aligned (+ or - 5%); Slightly Ahead (5-15 % positive deviation); or, Ahead (>15% positive deviation).

** SDS: Sustainable Development Scenario; B2DS: Beyond 2 Degrees Scenario

Results: Capital Allocation Assessments (14 automotive companies)

1. 2Dii assessment automotive companies' 2021 technology mix versus the sector average.*

This indicator assesses the technology mix of the company in 2021 compared to the market in 2021. The analysis is conducted on the technology level, meaning 2Dii compares the technology share of the company with the technology share of the sector average. For example, if the market's technology mix consists of 10% electric vehicles, while the company's technology mix consists of 17% electric vehicles, then the company is 'ahead' of the market.

Technology/# of companies	Ahead	Slightly Ahead	Aligned	Slightly Behind	Behind
Internal combustion engine	1	4	6	3	0
Hybrid	5	0	2	0	7
Electric vehicle	5	1	2	0	6

KEY FINDINGS: Results for automotive companies are quite mixed - but overall few have moved more quickly than the sector in terms of their production of internal combustion engine cars. While some companies are moving ahead more quickly with hybrid and electric vehicles, other automotive companies are lagging the market in terms of these two technologies.

Results: Capital Allocation Assessments (14 automotive companies)

2. 2DII's assessment of IEA scenario alignment for each technology (based on 2026 forecasts)
 This indicator analyses the automotive production plans of the company with IEA scenarios and identifies the scenario pathway to which it most closely corresponds per technology (based on 2026 forecasts)

Technology/# of companies	Significantly above SDS >3 degrees Celsius	Above SDS >2 degrees Celsius	Below SDS 1.75 – 2 degrees Celsius	Below B2DS < 1.75 degrees Celsius
Internal Combustion Engine	11	3	0	0
Hybrid	14	0	0	0
Electric Vehicle	2	3	6	3

KEY FINDINGS: The Internal Combustion Engine and Hybrid production forecasts of most automotive companies are significantly above the SDS > 3 degrees Celsius IEA scenario. However, companies' Electric Vehicle production forecasts span a wider range of IEA scenarios, and most are aligned with below SDS 1.75-2 degrees Celsius.

International Energy Agency (IEA) Decarbonization Scenarios

IEA Sustainable Development Scenario (SDS): The SDS replaces the previous 450 Scenario in the 2017 World Energy Outlook as the main decarbonisation scenario. It is “consistent with the direction needed to achieve the objectives of the Paris Agreement”, and further incorporates ambitions relating to universal energy access and improvements in air quality. While the temperature increase that would result from this scenario is dependent on measures that would take place after the period that it covers, it is consistent with a roughly 50% chance of 2 See IEA, World Energy Outlook 2017 Update June 2018 13 limiting global warming to 2°C above pre-industrial temperatures. It is therefore at the upper limit of the amount of emissions that can be considered to comply with the Paris Agreement.

IEA Beyond 2 Degrees Scenario (B2DS): The B2DS was published for the first time in the 2017 Energy Technology Perspectives. Like the SDS, it is driven by outcomes rather than inputs; that is, the demand pathway results from the ultimate goal, in this case limiting global warming to 1.75°C by 2100, “the midpoint of the Paris Agreement’s ambition range”³. Again, the associated level of cumulative emissions has a 50% chance of successfully delivering this temperature outcome. As each of these scenarios ultimately results in a given level of global warming, the modelled resulting aggregate amount of demand for each fossil fuel can be thought of as a “budget” for that fossil fuel to result in that warming outcome.

Climate Action 100+

Global Investors Driving Business Transition

A graphic element consisting of several concentric, semi-circular arcs in shades of orange, yellow, and red, resembling a stylized sun or a rising arc.