

CONTENTS

1.	IN	FRODUCTION	3
	1.1	About Climate Action 100+	4
	1.2	About this Guide	5
	1.3	The Structure of the Guide	5
	1.4	How to use this Guide	6
2.	<u>0</u> V	ERVIEW OF THE CA100+ NET ZERO COMPANY BENCHMARK	7
	2.1	General Objectives and Expectations of the CA100+ Net Zero Company Benchmark	8
	2.2	The CA100+ Net Zero Company Benchmark Indicators	9
3.	NE	T ZERO COMMITMENTS	12
	3.1	The CA100+ Net Zero Company Benchmark Expectations	13
	3.2	Performance of Asian companies and examples	15
	3.3	Challenges and Lessons Learned	16
4.	TA	RGETS AND STRATEGIES	18
	4.1	The CA100+ Net Zero Company Benchmark expectations	19
	4.2	Performance of Asian companies and examples	24
	4.3	Challenges for engagement	25
5.	MA	NAGEMENT SYSTEMS AND PROCESSES	27
	5.1	The CA100+ Net Zero Company Benchmark expectations	28
	5.2	Performance of Asian companies and examples	32
	5.3	Challenges and Lessons Learned	33
6.	GU	IDANCE ON CA100+ ENGAGEMENT	34
	6.1	The Benchmark as an engagement tool	35
	6.2	Key Investor insights	36
	Cor	nclusion	38
	Tab	le of Acronyms and Terms	39
	Ack	knowledgements	40

INTRODUCTION

- 1.1 About Climate Action 100+
- 1.2 About this Guide
- 1.3 The Structure of the Guide
- 1.4 How to use this Guide

1. INTRODUCTION

1.1 About Climate Action 100+

Climate Action 100+ (CA100+) is an investor-led global collaborative initiative to ensure the world's largest corporate greenhouse gas emitters take necessary action on climate change. In the first phase of the initiative, investors participating in CA100+ agreed to a broad common engagement agenda across sectors, regions and business types. This agenda consists of seeking commitments from company boards and senior management to:

- 1. **Implement a strong governance framework** which clearly articulates the board's accountability for and oversight of climate change risk.
- 2. Take action to reduce greenhouse gas emissions across the value chain, consistent with the Paris Agreement's goal of limiting global average temperature increase to well below two degrees Celsius above pre-industrial levels, aiming for 1.5 degrees. Notably, this implies the need to move towards net zero emissions by 2050 or sooner.
- 3. Provide enhanced corporate disclosures in line with the final recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) and sector-specific Global Investor Coalition on Climate Change (GIC) Investor Expectations on climate change guidelines (when applicable).² These disclosures will enable investors to assess the robustness of companies' business plans against a range of climate scenarios and will help improve investment decision-making.

In March 2022, CA100+ published its second iteration of the Net Zero Company Benchmark (hereafter "the Benchmark") which serves as an update to the March 2021 inaugural Benchmark.³ This Benchmark update assessed the alignment of 166 focus companies against 10 disclosure indicators as well as several complementary alignment assessment sets. Collectively, these indicator sets reflect the overall commitment priorities and engagement goals of CA100+.

Box 1. Current state of play

The March 2022 Benchmark update demonstrated year-on-year improvement across the CA100+ universe of companies towards achieving the initiative's three original goals. For example, 69% of the 166 focus companies have now committed to achieve net zero emissions by 2050 or sooner across all or some of their emissions footprint, which represents a 17% year-on-year increase. Further, 90% of all focus companies have some level of board oversight of climate change, and 89% of focus companies have aligned with TCFD recommendations in some capacity. ⁴

As of March 2022, the number of Asian companies with net zero commitments had increased to 45% (15 out of 33 companies) relative to 25% (8 out of 32 companies) in March 2021, effectively a doubling of the number of companies with these commitments. Asian companies also saw modest improvements across other indicators, especially in terms of creating decarbonisation strategies and setting target across different timeframes.

"From the 2018 level to today, the discussions have evolved. The way that companies are looking at climate change has evolved, and the whole ecosystem has evolved...This stage has come because of these discussions that not only we, but the entire ecosystem has been having with these companies."

- Priyanka Dhingra, SBI Funds Management

- 1 Climate Action 100+. https://www.climateaction100.org
- 2 GIC expectations were superseded by expectations within the Paris Aligned Investment Initiative. The Global Sector Strategies is a parallel workstream aimed to accelerate sectoral decarbonisation and available on CA100+ website.
- 3 Climate Action 100+. https://www.climateaction100.org/net-zero-company-benchmark/
- 4 Climate Action 100+, Climate Action 100+ Net Zero Company Benchmark Summary of company assessments, March 2022. Retrieved from: https://www.climateaction100.org/wp-content/uploads/2022/04/March-2022_Benchmark-assessments_public-summary_Final_pdf

1.2 About this Guide

The investors participating in CA100+ recognise that decarbonisation of the global economy is complex and that successful engagement will require unique strategies and approaches across different businesses, regions and sectors. Investors engaging in Asian and emerging markets have experienced significant differences among these markets, including differences in policy and regulation, in the influence of different stakeholders on company practice and in-company practice and performance on climate change.

While companies have generally welcomed and supported the goals of CA100+, some companies may find that expectations of the Benchmark may not be directly applicable to their specific corporate structure or governance processes. Therefore, using Benchmark assessments as an engagement tool with Asian companies may require a nuanced interpretation of company assessments and the initiative's overall expectations.

This Guide provides guidance to investors on how they can engage Asian and emerging market companies in understanding how the Benchmark relates to them and can be used in conjunction of other proprietary tools that investors may use to inform their understanding of company performance in reaching their climate goals. This Guide can also be used by CA100+ companies to understand what investors expect in terms of climate disclosure and to respond effectively and constructively to investor engagement. To ensure the relevance of the report to investors engaging in Asian markets, we spoke to a number of well-known institutional investors that engage with their investees on the Benchmark. We provide commentary and quotes from these interviews throughout the report.

This Guide provides an overview of the expectations of the Benchmark, some common barriers facing companies in Asian markets with respect to the Benchmark, and examples of how Asian companies are taking action. Please note that this Guide is intended to supplement but not replace the official Benchmark methodology. To access the most recent Benchmark methodology and related guidance, please refer to the CA100+ website.⁵

All of the examples cited in this Guide are based on assessments from the March 2022 iteration of the Benchmark and are subject to change as new announcements or commitments become available. Further, the guidance in this report is based on the Benchmark indicators and scoring methodology that was published in March 2022. The Benchmark indicators and methodology are subject to change as new iterations of the Benchmark are published.

1.3 The Structure of the Guide

The Guide is structured as follows:

Section 2

- Overview of the key features of the CA100+ Net Zero Company Benchmark
- Notes on how companies are assessed and on how the results are presented

Section 3

- Explanation of the Benchmark's requirements on net zero commitments
- Examples and trends from Asian companies
- Challenges encountered by Asian companies when setting net zero targets

Section 4

- Overview of the Benchmark's requirements on interim target setting and decarbonisation strategies
- Examples and trends from Asian companies
- Challenges encountered by Asian companies when setting interim targets and decarbonisation strategies

Section 5

- Overview of the Benchmark's requirements on governance and management processes and systems
- Examples and trends from Asian companies
- Challenges encountered by Asian companies when setting and disclosing governance and management processes and systems

Section 6

 Guidance on how the Benchmark results and supplemental indicators might be used to support CA100+ engagement

1.4 How to use this Guide

The Benchmark is a valuable tool when it comes to setting climate engagement priorities with companies. To make the most of the Benchmark as an engagement tool, it is necessary to first identify where a given company is on its journey to net zero. Broadly speaking, there are five stages a company could be in on their transition, from just starting out to very advanced. We outline these stages and corresponding engagement resources below.

Stag	ge of transition	Complementary Resources
1	Companies who have yet to make a commitment to net zero.	• 2021 version of this Investor Guide ⁶
2	Companies who have made a commitment to net zero but with a timeline in the second half of the century.	Section 3 of this report (for setting net zero commitments)
3	Companies who have made a commitment to net zero by 2050 but have made limited progress on their net zero/decarbonisation journey, in terms of turning this commitment into concrete targets and/or establishing robust management systems and processes.	• Sections 4 and 5 of this report
4	Companies who are reasonably advanced on developing and implementing their net zero commitments, but who may still need to do further work to align their commitments with the International Energy Agency's 1.5°C pathway.	• Sections 4 of this report (for aligning targets with a 1.5°C pathway)
5	Companies who are reasonably advanced on developing and implementing their net zero commitments, and who are clearly aligned with the International Energy Agency's 1.5°C pathway.	 Section 5 of this report (which includes areas of the Benchmark that are not yet publicly scored) CA100+ Global Sector Strategies⁷ Institutional Investor Group on Climate Change (IIGCC) Net Zero Standard for Oil and Gas Companies⁸

 $^{\ \, 6\ \,} https://www.climateaction 100.org/wp-content/uploads/2021/06/CA100-Engagement-Guide_English_updated.pdf$

 $^{7 \ \} https://www.climateaction 100.org/approach/global-sector-strategies/$

⁸ https://www.iigcc.org/resource/net-zero-standard-for-oil-and-gas-companies/



OVERVIEW OF THE CA100+ NET ZERO COMPANY BENCHMARK

- 2.1 General Objectives and Expectations of the CA100+ Net Zero Company Benchmark
- 2.2 The CA100+ Net Zero Company Benchmark Indicators

2. OVERVIEW OF THE CA100+ NET ZERO COMPANY BENCHMARK

2.1 General Objectives and Expectations of the CA100+ Net Zero Company Benchmark

The Benchmark has been designed to clarify investor expectations on climate and to help companies understand and meet these expectations. It is aligned with existing leading climate disclosure frameworks, including that of the TCFD, and offers a consistent approach to assessing focus companies, allowing for comparison among companies. The Benchmark therefore provides investors and other stakeholders with a tool that is both transparent and robust to facilitate focus company engagement and action.

CA100+ seeks to focus investor action not only on companies that present the greatest climate-related risk to investors' portfolios, but also on companies that have a significant opportunity to drive a broader net zero economy transition. The Benchmark update released in March 2022 covers 166 companies, including 33 companies headquartered in Asian markets as set out in the Table 1.

HQ Market	Company name	Sector
China	Anhui Conch Cement Company Ltd.	Cement
	China National Offshore Oil Corp. (CNOOC) Ltd.	Oil & Gas
	China Petroleum & Chemical Corp. (Sinopec)	Oil & Gas
	China Shenhua Energy Co. Ltd.	Coal Mining
	PetroChina Co. Ltd.	Oil & Gas
	Saic Motor Corp.	Autos
Hong Kong	Power Assets Holdings Ltd.	Electric Utilities
India	Coal India Ltd.	Coal Mining
	NTPC Ltd.	Electric Utilities
	Oil & Natural Gas Corp.	Oil & Gas
	Reliance Industries Ltd.	Oil & Gas
	UltraTech Cement Ltd.	Cement
	Vedanta Ltd.	Diversified Mining
Indonesia	PT Aneka Tambang Tbk (ANTAM) ¹⁰	Coal Mining
	PT Bumi Resources Tbk	Coal Mining
	PT United Tractors Tbk	Other Industrials
Japan	Daikin Industries Ltd.	Other Industrials
	ENEOS Holdings Inc.	Oil & Gas
	Hitachi Ltd.	Other Industrials
	Honda Motor Co.	Autos
	Nippon Steel Corp.	Steel
	Nissan Motor Co. Ltd.	Autos
	Panasonic Corp.	Consumer Goods and Services
	Suzuki Motor Corp.	Autos
	Toray Industries Inc.	Chemicals
	Toyota Motor Corp.	Autos

⁹ Investor engagements through CA100+ with these 33 companies is coordinated by the AIGCC-PRI Asia Engagement Working Group.

¹⁰ PT Aneka Tambang Tbk (ANTAM) is currently classified as a coal mining company but in order to better reflect the business nature of the company, a sector reclassification is being considered.

South Korea	Korea Electric Power Corp. (KEPCO)	Electricity Utilities
	POSCO Holdings Inc.	Steel
	SK Innovation Co. Ltd.	Oil & Gas
Taiwan	China Steel Corp.	Steel
	Formosa Petrochemical Corp.	Oil & Gas
	Hon Hai Precision Industry Co. Ltd.	Other Industrials
Thailand	PTT Public Co. Ltd.	Oil & Gas

2.2 The CA100+ Net Zero Company Benchmark Indicators

The Benchmark is comprised of a disclosure framework, which evaluates the adequacy of corporate disclosures on climate, and four supplementary indicator sets that assess the alignment of these disclosures against normative frameworks. Together, these indicator sets reflect the overall commitment priorities and engagement goals of CA100+. We provide a high-level description of each of these five sets of indicators below and provide additional detail in Sections 3 to 5 of this report.¹¹

2.2.a Disclosure Framework (provided by the Transition Pathway Initiative)

The Benchmark's Disclosure Framework is provided by the Transition Pathway Initiative and assesses all focus companies against ten indicators (see Table 2). Each indicator is comprised of several sub-indicators and metrics, and each metric is assessed on a Yes/No basis based on publicly available disclosures made by the company. The disclosure framework is also available on the CA100+ website in Chinese, Japanese and Korean. Company scores on the Benchmark's disclosure indicators can be found on their assessment profiles (see Exhibit 1)12.

Table 2. Climate Action 100+ Net Zero Company Benchmark Indicators (TPI)		
Indicator 1	Net zero GHG Emissions by 2050 (or sooner) ambition	
Indicator 2	Long-term (2036-2050) GHG reduction target(s)	
Indicator 3	Medium-term (2026-2035) GHG reduction target(s)	
Indicator 4	Short-term (present-2025) GHG reduction target(s)	
Indicator 5	Decarbonisation Strategy	
Indicator 6	Capital Alignment	
Indicator 7	Climate Policy Engagement	
Indicator 8	Climate Governance	
Indicator 9	Just Transition [Beta indicator]	
Indicator 10	TCFD Disclosure	

¹¹ For more detail on the frameworks, indicators, data sources and assessment methodologies, please refer to the repository of documents available in the relevant tabs on the Climate Action 100+ website.

¹² https://www.climateaction100.org/whos-involved/companies/

2.2.b The Benchmark's supplementary Indicator Sets

The four supplementary indicator sets of the Benchmark contain: (1) capital allocation alignment assessments provided by Carbon Tracker Initiative (CTI), (2) capital allocation alignment assessments provided by the Paris Agreement Capital Transition Assessment (PACTA) team at RMI, (3) climate policy engagement alignment assessments provided by InfluenceMap, and (4) provisional Climate Accounting and Audit assessments provided by CTI and Climate Accounting and Audit Project (CAAP). The presentation of these indicator sets on a typical company profile on the CA100+ website is given in Exhibit 1.

Capital allocation alignment - Energy companies (provided by CTI)

For the Benchmark's 36 oil and gas focus companies, Carbon Tracker Initiative (CTI) has assessed the alignment of these companies' upstream oil & gas exploration and production investment plans relative to climate change scenarios. Similarly, for the Benchmark's 33 electric utility focus companies, CTI has assessed the alignment of these companies' retirement schedules for coal- and gas-fired electricity generation relative to climate change scenarios.

The purpose of these assessments is to identify, quantify, and assess the stranded asset risks for these energy-producing focus companies, as well as their alignment with the goals of the Paris Climate Agreement. Company scores on the Benchmark's capital allocation alignment assessment can be found on their assessment profiles (see Exhibit 1). A detailed description of these indicators can be found in Section 4.

Capital allocation alignment (provided by the Paris Agreement Capital Transition Assessment (PACTA) team at RMI, previously within the 2° Investing Initiative)

For electric utility and autos focus companies, RMI (PACTA) provides supplementary assessments of these companies' planned capital expenditure (CapEx) and production capacity relative to a range of climate change scenario pathways. In addition, for steel, cement, and aviation focus companies, RMI (PACTA) provides assessments of companies' planned economic outputs and emissions intensities relative to climate scenarios. Company scores on the Benchmark's capital allocation alignment assessment can be found on their assessment profiles (see Exhibit 1). A detailed description of these indicators can be found in Section 4.

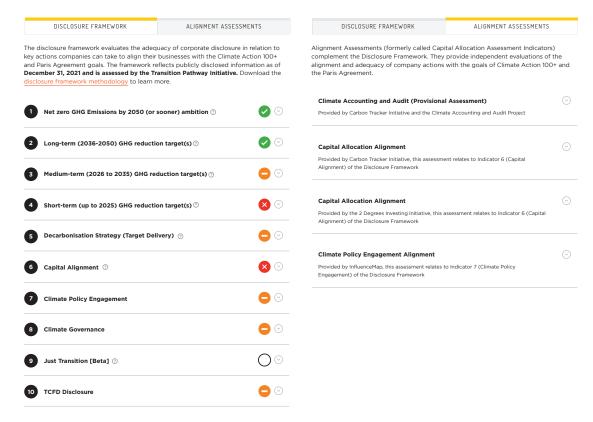
Climate Policy Engagement Alignment (provided by InfluenceMap)

InfluenceMap provides supplementary assessments of the alignment of all focus 166 company climate policy engagement actions (direct and indirect via their industry associations) with the Paris Agreement goals. The InfluenceMap assessments of CA100+ focus companies can be found on their assessment profiles (see Exhibit 1) and InfluenceMap's website. A detailed description of these indicators can be found in Section 5.

Climate Accounting and Audit [provisional] (provided by CTI and CAAP)

Carbon Tracker Initiative (CTI) and the Climate Accounting and Audit Project (CAAP) provide assessments on whether focus companies' accounting practices and related disclosures, and the auditor's report thereon, reflect the effects of climate risk and the global move towards a 2050 net zero emissions pathway and the Paris Agreement goal of limiting global warming to no more than 1.5°C. This assessment is provisional, meaning the information was collected and publicly assessed for the March 2022 iteration of the Benchmark, but the framework will be subject to change in future iterations. Company scores on the Benchmark's Climate Accounting and Audit indicators can be found on their assessment profiles on the CA100+ website (see Exhibit 1).

Exhibit 1. Presentation of the 10 indicators of the Disclosure Framework and Alignment Assessments on a typical company profile on the CA100+ website.



Box 2. Links to Climate Action 100+ Net Zero Company Benchmark Resources

- More information on the Climate Action 100+ Net Zero Company Benchmark can be found on the initiative's website: https://www.climateaction100.org/
- Company scores on the Benchmark's indicators on the Disclosure Framework, the capital allocation alignment
 assessment, the climate policy engagement alignment assessment and the Climate Accounting and Audit
 assessment can be found on individual company profiles: https://www.climateaction100.org/whos-involved/companies/
- The InfluenceMap assessments of CA100+ focus companies can also be found on InfluenceMap's website: https://ca100.influencemap.org/index.html#1
- The assessment methodology documents are available on the CA100+ website in English as well as in Chinese, Japanese and Korean: https://www.climateaction100.org/net-zero-company-benchmark/methodology/

NET ZERO COMMITMENTS The CA100+ Net Zero Company Benchmark Expectations 3.1 3.2 Performance of Asian companies and examples 3.3 Challenges and Lessons Learned

3. NET ZERO COMMITMENTS

Engagement priorities for net zero commitments

- 1. Net zero commitments must be set no later than 2050, with the alignment to national targets to be considered a baseline.
- 2. Net zero commitments must cover 95% of a company's Scope 1 and 2 (combined) emissions.
- 3. Net zero commitments must cover the material Scope 3 emissions for the company.
- 4. Net zero commitments (and all targets) must be set for the specific entity being evaluated by the Benchmark (i.e. group- or subsidiary-level commitments are not eligible to score under the Benchmark).

3.1 The CA100+ Net Zero Company Benchmark Expectations

Net zero commitments are the keystone of the Benchmark as they represent the starting point for company transitions. Each subsequent aspect of the Benchmark assessment analyses company preparedness for achieving the net zero strategy that it has set. In this way, net zero commitments are also the cornerstone of a comprehensive business strategy that aligns with the goals of the Paris Agreement. Such a strategy would define the core business decisions of the company by encompassing the three pillars of the initiative outlined in Section 1.

Table 3. Disclosure Framework Indicator 1 – Net Zero Emissions by 2050 (or sooner) Ambition				
Sub-indicator 1.1	The company has set an ambition to achieve net zero GHG emissions by 2050 or sooner.			
Metric 1.1.a	The company has made a qualitative net zero GHG emissions ambition statement that explicitly includes at least 95% of its Scope 1 and 2 emissions.			
Metric 1.1.b	The company's net zero GHG emissions ambition covers the most relevant Scope 3 GHG emissions categories for the company's sector, where applicable.			

Companies must include most Scope 1 & 2 emissions in their net zero target

In Disclosure Framework Indicator 1, the Benchmark asks companies to set an ambition to achieve net zero GHG emissions by 2050 or sooner across its direct emissions from its operations (Scope 1 emissions) and indirect emissions from purchased energy (Scope 2 emissions). In order to constitute a "net zero" ambition, the statement must cover the vast majority (at least 95%) of the company's combined Scope 1 and Scope 2 emissions. Therefore, a company's targets cannot score on Metric 1.1.a if the company's net zero target covers less than 95% of its combined Scope 1 and 2 emissions.

¹⁴ For complete definitions of emissions Scopes, see The Greenhouse Gas Protocol, A Corporate Accounting and Reporting Standard (Revised Edition) at https://ghgprotocol.org/sites/default/files/standards/ghg-protocol-revised.pdf

Companies must include material Scope 3 emissions in their net zero target

For companies in some sectors (e.g. oil & gas companies or automobile manufacturers) Scope 3 emissions are the most significant source of emissions for the company. This is in contrast to companies in sectors where the greatest source of emissions is from their own operations (e.g. cement or steel manufacturers). Therefore, while Scope 3 emissions are not considered material for cement and steel manufacturers under the Benchmark, they are considered very material for oil & gas companies and automobile manufacturers.

For companies in sectors where Scope 3 emissions are material, the Benchmark expects them to include Scope 3 emissions in their net zero targets in order to capture the full climate impact of the company's business activities. Companies for which Scope 3 emissions are considered material under the Benchmark are assessed on whether the relevant Scope 3 category (of which there are 15) is covered by their Scope 3 target. The Benchmark focuses on three categories of Scope 3 emissions: purchased goods and services (category 1 – upstream), processing of sold products (category 10 – downstream), and the use of sold products (category 11 – downstream). If the relevant category of Scope 3 emissions for the company is not included in its target, the target will not be admissible under the Benchmark.

The relevance of different Scope 3 categories of emissions is largely determined at the sector level by expert analysts at the Transition Pathway Initiative and at FTSE Russell. Companies for which Scope 3 emissions are not applicable in the Benchmark are assessed as 'Not Applicable' on this metric, regardless of whether they have set a net zero Scope 3 ambition.¹⁵

"Reporting boundaries, and how much companies are looking at operations outside of their home country, is very important. I have been strongly encouraging companies to include all operations in their reporting boundaries, even if they don't have a controlling stake. This is because as investors, they should be a good steward of that asset, just as asset managers should be." - Tina Chang, Blackrock

Net zero targets must be achieved no later than 2050

The Benchmark expects companies to set an ambition to achieve net zero GHG emissions by 2050 or sooner. While CA100+ recognises that many companies may be following their country's NDC as a baseline while setting their own commitment, evaluating companies consistently against a 2050 timeline not only supports the best available science and the Benchmark's focus on keeping global temperature rise to 1.5°C, but also allows for comparability between companies, with the recognition that many CA100+ focus companies operate in multiple jurisdictions subject to different national and subnational greenhouse gas reduction targets. It is therefore important for companies to understand that they will ultimately need to achieve net zero emissions by 2050 or sooner to keep global temperature rise to within 1.5°C above preindustrial levels. As a result, alignment with current national targets alone may not be sufficient, as national targets are they are intended to be ratcheted up over time.

¹⁵ Please refer to the Benchmark's FAQs for further information on the determination of Scope 3 emission relevance: https://www.climateaction100.org/net-zero-company-benchmark/questions/

Box 3. Understanding the Importance of Nationally Determined Contributions (NDCs)

Companies in Asian and emerging markets often set emission reduction targets that are strongly influenced by national policy commitments on climate change. The Nationally Determined Contributions (NDCs) established by countries under the Paris Agreement on Climate Change are particularly significant in terms of framing governments' expectations of companies to meet national goals, as they could be interpreted as minimum emissions reduction alignment requirements set out by the government.

"NDCs become more important for companies in emerging markets because they set the goal for how far the companies should reduce their emissions. They are effectively the energy policy of the company."

- Seiji Kawazoe, Sumitomo Mitsui Trust Asset Management

The Benchmark requires companies to set an ambition to achieve net zero GHG emissions by 2050 or sooner, and to align other practices and strategies with the Paris Agreement's objective of limiting global warming to 1.5°C. While international debate has focused on 1.5°C, some companies based in Asian markets have used their individual country's climate goals (including NDCs) as a frame of reference for their efforts, even though these national level goals may not yet be aligned with a 1.5°C trajectory.

In fact, in aggregate, current commitments contained in the NDCs of countries in the Asia-Pacific region are not sufficient to achieve carbon neutrality in this region by 2050 without a temporary overshoot. As of autumn 2021, the climate policy scenario the Asia-Pacific region was expected to reach 42.7 GtCO₂e GHG emissions by 2030, which would be a 16 per cent increase from the record high 2019, and almost a 100 per cent increase from 2010 emissions levels. For global emissions to reach net zero by 2050, a significant increase in ambition of national climate policies within Asia is therefore critically important.

The first NDC Global Stocktake will take place in 2023 and we expect many Asian countries to strengthen their carbon reduction ambitions as part of this process. As several countries have already made net zero commitments, we expect other countries in the region to make similar commitments. The changing global climate policy landscape is, in turn, creating pressure for companies to increase their level of ambition and to accelerate action to reduce their GHG emissions. With the second NDC Global Stocktake scheduled for 2028, companies will face further pressure to take action.

3.2 Performance of Asian companies and examples

45% of Asian companies set net zero targets in the March 2022 Benchmark update, whereas across the entire CA100+ universe, 69% of companies had set net zero targets (75% of the non-Asian universe of companies had set net zero targets). This figure of 45% represents a substantial increase from the 2021 Benchmark, when only 25% of Asian companies had set a net zero target. Despite the progress, it is worth noting that only half of the Asian companies that have set a net zero target include their most material Scope 3 emissions in the target.

¹⁶ For a list of NDCs set in Asian markets, please refer to the UNDP NDC Support Program: https://www.ndcs.undp.org/content/ndc-support-programme/en/home/our-work/geographic/asia-and-pacific.html

¹⁷ United Nations, Economic and Social Commission for Asia and the Pacific, United Nations Environment Programme, United Nations Women and the greenwerk (2021). Is 1.5°C within Reach for the Asia-Pacific Region? Ambition and Potential of NDC Commitments of the Asia-Pacific Countries. Retrieved from: https://www.unescap.org/sites/default/d8files/knowledge-products/Asessment%20of%20AP%20Climate%20Ambition_Final%20 Report%20080422.pdf

Box 4. Examples of Net Zero Targets in Asia

Several Asian companies have set net zero targets across all or most of their emissions in the March 2022 Benchmark update.

For example, electric utility **Korea Electric Power Corp.** set a net zero target that commits the company to carbon neutrality by 2050 and applies to all six of the company's subsidiaries.¹⁸ In May 2022, the company plans to sell all overseas coal-fired power plants in efforts to improve its financial status over record losses. As one of the three Asian electric utility companies in CA100+, the indicative trajectory of change required could be of reference to its sectoral peers.

Further, **Nissan Motor Corp.**¹⁹ and **Honda Motor Co.** were the only Asian automobile companies to set net zero targets that covered all relevant Scopes of emissions (Scope 1+2+3 emissions). For example, Honda states in its 2021 Sustainability Report that it plans to "shift from its 2°C target to a 1.5°C target by reducing CO₂ emissions throughout the product life cycle that encompasses not just products but also corporate activities."²⁰ Within the automobile sector, emissions from sold vehicles is the largest contributor to the sector's total emissions.²¹

Finally, all three Asian steel companies assessed under the Benchmark (**China Steel Corp.**, **POSCO Holdings Inc.**, and **Nippon Steel Corp.**), have set a net zero target recognised by the Benchmark that covers their most material sources of emissions, with all three committing to achieve carbon neutrality across their direct and indirect (Scope 2) emissions by 2050. For example, POSCO states in its 2020 Climate Action Report: "We are fully committed to align our target to support and promote net zero society, and POSCO has set the following ambitious goals...By 2050, in the long-term, we aim to achieve a carbon neutrality."²²

3.3 Challenges and Lessons Learned

Two key reasons why some Asian companies did not score points on Disclosure Framework Indicator 1 are that (a) some companies disclosed commitments that did not apply specifically to the entity being assessed, and (b) some companies set net zero targets for dates later than 2050.

Targets that are not specific to the assessed entity

Companies are expected to formally set their own targets rather than expressing support for targets issued by others. While several Asian focus companies have set net zero targets unique to the entity that is evaluated by the Benchmark, other companies have expressed support for targets issued by others, such as industry associations, parent companies, or national governments, rather than formally setting their own targets. While supporting targets set by others is encouraged, it is companies' own commitments that are assessed by the Benchmark. Therefore, focus companies who have shown support for targets set by others must also rearticulate how these targets apply specifically to their own company for the target to be eligible to score under the Benchmark.

- 18 Korea Electric Power Corp. (KEPCO), "KEPCO Group Declares 2050 Carbon Neutrality Vision, 'Zero for Green'. Retrieved from: https://home.kepco.co.kr/kepco/EN/ntcob/ntcobView.do?pageIndex=1&boardSeq=21054556&boardCd=BRD_000450&menuCd=EN030502&parnScrpSeq=0&searchCondition=total&searchKeyword=
- 19 Nissan Motor Corp., press release (2021/01/27). Retrieved from: https://global.nissannews.com/en/releases/release-18e8181d3a7c563be5e62225a70c61b2-nissan-sets-carbon-neutral-goal-for-2050
- 20 Honda Motor Co., Honda Sustainability Report 2021. Retrieved from: https://global.honda/content/dam/site/global/about/cq_img/sustainability/report/pdf/2021/Honda-SR-2021-en-all.pdf
- 21 Emissions from sold vehicles are covered by Scope 3, Category 11 (the use of sold products)
- POSCO Holdings Inc, Climate Action Report 2020, pg. 17. Retrieved from: https://www.posco.co.kr/homepage/docs/eng6/jsp/dn/irinfo/2020_POSCO_CLIMATE_ACTION_REPORT.pdf#page=1

Companies are also expected to set targets specifically at the level of the entity being assessed under the Benchmark. For example, if the assessed entity is a corporate entity, then the target must be set at that level, not at the level of individual subsidiaries or at the conglomerate level, for it to be eligible to score under the Benchmark. Similarly, if the entity assessed by the Benchmark is a subsidiary of a larger corporation, then the target must be set at the subsidiary level, as a reference to the corporate parent's target is not sufficient to score.

Box 5. Case Study - Formosa Petrochemical's Group-Level Net Zero Target

0il and gas company **Formosa Petrochemical Corp.** is a subsidiary of Formosa Plastics Group, the latter of which has set a net zero by 2050 goal. The company's website states: "Formosa Plastics Group strives to achieve carbon neutrality by 2050 covering scope 1 & 2 emissions and will set our total emissions in 2007 as the base year since that was the peak emission year." However, since the entity being assessed under the Benchmark is Formosa Plastics Group's subsidiary Formosa Petrochemical, and since the group-level target is not articulated as being specific to the entity in question, the target is not eligible to score under the Benchmark.

Target that are set on alternate timelines

While many companies have committed to reaching net zero across some Scope of emissions, some of these companies have set a target date which is later than 2050. Many of these are companies whose national government has set a national net zero target after 2050. In addition to allowing for comparability between companies, and to reflect the best available science, the Benchmark will continue to assess companies against a 2050 timeframe.

Box 6. Case Study - China National Offshore Oil Corp. (CNOOC) Net Zero Target

Oil and gas company **China National Offshore Oil Corp. (CNOOC)** has set a target to achieve carbon neutrality before 2060. Since the company's target has not declared that it will reach carbon neutrality by 2050 at the latest, the target is not eligible to score under the Benchmark.

²³ Formosa Petrochemical Corp., "Formosa Plastics Group strives to achieve carbon neutrality by 2050." Retrieved from: https://fpcc-esg.com/en_content_detail.php?id=9&page=en_news

TARGETS AND STRATEGIES

- 4.1 The CA100+ Net Zero Company Benchmark expectations
- 4.2 Performance of Asian companies and examples
- 4.3 Challenges for engagement



4. TARGETS AND STRATEGIES

Engagement priorities for targets and strategies

- 1. Companies must set targets for all three timeframes stipulated by the Benchmark (i.e. short, medium- and long-term), and these timeframes must be defined by specific years (Indicators 2, 3 and 4).
- 2. Targets must follow the same coverage requirements as for net zero targets and they must be set for the specific entity being evaluated by the Benchmark (Indicators 2, 3 and 4).
- 3. Companies must set targets that are aligned with a 1.5°C pathway (Sub-indicators 2.3, 3.3 and 4.3).
- 4. Companies must provide sufficient detail on their decarbonisation strategies, and they must set strategies for both their medium- and their long-term targets (Sub-indicator 5.1).
- 5. Companies must make explicit commitments to align their capital expenditures with the Paris Agreement, as providing detail on capital expenditure plans is not sufficient (Indicator 6).

4.1 The CA100+ Net Zero Company Benchmark expectations

General expectations for targets and strategies

In addition to setting a net zero target, the Benchmark expects companies to set interim GHG reduction targets to illuminate their anticipated emissions pathway on their journey to net zero emissions. The purpose of asking companies to disclose their interim targets is to determine whether companies are planning to reduce their carbon footprint gradually over time, and where possible frontload emissions reductions with existing technologies instead of waiting until 2050 to reduce emissions. This is important because climate change is the result of cumulative emissions.

While corporate target setting evolves to become more granular over time, disclosing interim decarbonisation targets and tying these targets to concrete decarbonisation plans is integral for providing a clear picture to investors of short-and long-term risk related to the transition. Thus, the Benchmark requires decarbonisation strategies to be linked to the company's GHG reduction targets.

"Many companies have set a net zero target over the long term, but the next phase of this is to align their capital expenditures and business models to ensure that they can achieve those longer-term goals." - Craig Rhines, CalPERS

Emissions coverage requirements for Indicators 2, 3 and 4

Interim targets are assessed on three timeframes: from 2036 to 2050 (Disclosure Framework Indicator 2), from 2026 to 2035 (Disclosure Framework Indicator 3), and from the present to 2025 (Disclosure Framework Indicator 4). We provide Indicator 2 as an example of the expectations for interim target setting in Table 4.

Table 4. Disclosure Framework Indicator 2 – Long-term targets		
Sub-indicator 2.1	The company has set a target for reducing its GHG emissions by between 2036 and 2050.	
Sub-indicator 2.2	The long-term (2036 to 2050) GHG reduction target covers at least 95% of Scope 1 $\&$ 2 emissions and the most relevant Scope 3 emissions (where applicable).	
Metric 2.2.a	The company has specified that the target covers at least 95% of its total Scope 1 and 2 emissions.	
Metric 2.2.b	Where applicable, the company's Scope 3 GHG emissions target covers at least the most relevant Scope 3 emissions categories for the sector, and the company has published the methodology used to establish the Scope 3 target.	

As with net zero targets in Disclosure Framework Indicator 1, interim targets are assessed on the coverage of total emissions that the targets include. The Benchmark assesses whether companies' targets cover the majority (95%) of emissions from their operations (Scope 1) and purchased energy (Scope 2) at 2050, 2035 and 2025 in Disclosure Framework Metrics 2.2.a, 3.2.a and 4.2.a respectively. If the coverage of the target is unclear, the target will not score on these Metrics. In addition to the percentage of emissions covered by the target, the additional following information is captured when assessing company targets: the Scope(s) of emissions covered, (i.e. Scope 1 and/or Scope 2 and/or Scope 3), the base year of the target (the point of comparison for the % reduction in emissions), the target year, and the unit of the target (tonnes of CO_2 e, tonne of CO_2 e per dollar revenue, etc.). These details constitute the minimum information required to assess the company's transition pathway.

The Benchmark also assesses whether companies' interim targets cover the relevant Scope 3 emissions categories at 2050, 2035 and 2025 in Disclosure Framework Metrics 2.2.b, 3.2.b and 4.2.b respectively. The coverage requirements are the same as those articulated in section 3.1. Given that the Benchmark assesses companies against a 2026 – 2035 medium-term timeline, this provides companies with an opportunity to demonstrate their decarbonisation ambition by setting medium-term targets that surpass that outlined by their country's NDC target which may be set for 2030.

Aligning interim targets with a 1.5°C pathway (Sub-indicators 2.3, 3.3 and 4.3)

The Benchmark assesses whether companies' targets are aligned with the goal of limiting global warming to 1.5° C by 2050, 2035 and 2025 in Disclosure Framework Sub-indicators 2.3, 3.3, and 4.3, respectively (Table 5). These Sub-indicators differ from the above Metrics as it focuses on the ambition (i.e. percent emissions reduction) of the target instead of what emissions the target is stated to cover. This assessment is based on Carbon Performance assessments carried out by the Transition Pathway Initiative (TPI). TPI uses modelling conducted by the International Energy Agency (IEA) to translate emissions targets made at the international level into sectoral benchmarks, against which the performance of individual companies can be compared. Benchmarking is sector-specific and based on emissions intensity (e.g. for electricity utilities, it is tonnes of CO_2 per MWh electricity generated). This approach is known as the Sectoral Decarbonisation Approach.

Table 5. Disclosure Framework Indicators 2-4 - Alignment with 1.5°C

Sub-indicator 2.3

The expected carbon intensity derived from the company's long-term GHG emissions reduction target (or, in the absence of a long-term target, the company's last disclosed carbon intensity or the intensity derived from its short- or medium-term target) is aligned with or below the relevant sector trajectory needed to achieve the Paris Agreement goal of limiting global temperature increase to 1.5° Celsius with low or no overshoot in 2050. This is equivalent to IPCC Special Report on 1.5° Celsius pathway P1 or net zero emissions by 2050.

Investors can use company scores on Sub-indicator 2.3, 3.3, and 4.3 to identify whether the company's future emissions performance is aligned with the goal of limiting warming to 1.5°C at 2050, 2035 and 2025. If a company is aligned at each of these points in time, it is reasonable to assume that its overall emissions reduction trajectory is aligned with 1.5°C.²⁴ If a company is aligned in 2050 but not at one or both of 2025 or 2035, this suggests that the company is planning on backloading its emission reduction efforts (or delaying substantial emissions reductions efforts until closer to 2050), rather than taking more immediate action.

Companies in sectors whose decarbonisation pathways have been determined, and for whom low carbon alternatives exist, are strongly encouraged to set more ambitious targets than those required to score on Sub-indicator 2.3, 3.3, and 4.3. These differences in ambition are captured and clearly visualised in the TPI decarbonisation pathways. For investors wanting a more complete picture of a company's future emissions trajectory, they can see the company's full emissions pathway on the TPI website.²⁵

Disclosing concrete decarbonisation strategies²⁶

In addition to requiring companies to disclose their interim targets, the Benchmark also assesses whether companies have in place the strategies needed to achieve these targets (Disclosure Framework Sub-indicator 5.1, Table 6). The dual assessment of targets and their accompanying decarbonisation strategies allows investors not only to determine whether a company has considered the actions required to achieve the targets, but also how feasible these actions are.

In order to score on Sub-indicator 5.1, a company's decarbonisation strategy must clearly identify the set of actions it intends to take to achieve both their medium- and long-term GHG reduction targets. In addition, the company must identify the approximate proportion of the overall GHG target that each action will account for. Companies and investors can find supplementary, sector specific, disclosure recommendations on this indicator for oil & gas companies in IIGCC's Net Zero Standard for Oil and Gas.²⁷

It is important to note that decarbonisation strategies are assessed on whether they include measures to address both the company's medium- and long-term GHG reduction targets. Therefore, to score points on Sub-indicator 5.1, a company's decarbonisation strategy must be disclosed in relation to both its long- and medium-term targets, in addition to containing sufficient details as described above. This means that if a company does not have both a medium- and a long-term target, then it cannot score points on Sub-indicator 5.1.

²⁴ For information about how the Benchmark relates to the Science Based Targets Initiative (SBTi), please refer to Climate Action 100+ Benchmark FAQs, which can be found here: https://www.climateaction100.org/net-zero-company-benchmark/questions/

²⁵ https://transitionpathwayinitiative.org

²⁶ Indicator 5 of the Disclosure Framework also includes Sub-indicator 5.2 on green revenues. However, this Sub-indicator is not currently publicly assessed for companies headquartered outside of the European Economic Area (EEA) or the United Kingdom, and so has not been included in this guide as it is not currently relevant to Asian markets.

²⁷ IIGCC, Net Zero Standard for Oil and Gas, 2021. Retrieved from: https://www.iigcc.org/download/iigcc-net-zero-standard-for-oil-and-gas/?wpdmdl=4866&refresh=626ab870c6d391651161200

Table 6. Disclosure Framework Indicator 5 – Decarbonisation Strategy				
Sub-indicator 5.1	The company has a decarbonisation strategy that explains how it intends to meet its long- and medium-term GHG reduction targets.			
Metric 5.1.a	The company identifies the set of actions it intends to take to achieve its GHG reduction targets over the targeted timeframe. These measures clearly refer to the main sources of its GHG emissions, including Scope 3 emissions where applicable.			
Metric 5.1.b	The company quantifies key elements of this strategy with respect to the major sources of its emissions, including Scope 3 emissions where applicable (e.g. changing technology or product mix, supply chain measures, R&D spending).			

Explicitly committing capital expenditures to align with climate goals

The Benchmark assesses whether corporate capital expenditure (CapEx) plans are aligned with international climate targets in Indicator 6 of the Disclosure Framework (Table 7). Disclosures of CapEx plans provide investors with an understanding of how a company intends to undertake new projects or investments and can therefore be informative when assessing the robustness of a company's transition plan.

Since CapEx strategy is highly specific to individual sectors and companies, Indicator 6 requires companies to make clear statements that their CapEx allocation plan is aligned with decarbonisation goals – either their own, or the Paris Agreement's objective of limiting global warming to 1.5°C (Sub-indicator 6.1). Another way to score points on this Sub-indicator is to make a clear statement that the company has committed to phase out planned expenditure in unabated carbon intensive assets or products. The Benchmark further requires companies to disclose several key details about how they have determined this alignment (Sub-indicator 6.2). As of March 2022, only 9 companies satisfied at least partial criteria for Sub-indicator 6.1, and only 2 companies satisfied at least partial criteria for Sub-indicator 6.2. None of these companies are headquartered in Asia. By way of providing further guidance to the reporting of capital expenditures, companies are encouraged to provide timelines and delineate legacy capex from incremental capex when outlining their capex commitments, as this may help investors understand the capital alignment progression of companies better. Whilst this is not specifically required by the Benchmark at this point, this is considered good practice.

Table 7. Disclosure Framework Indicator 6 – Capital Alignment				
Sub-indicator 6.1	The company is working to decarbonise its capital expenditures.			
Metric 6.1.a	The company explicitly commits to align its capital expenditure plans with its long-term GHG reduction target OR to phase out planned expenditure in unabated carbon intensive assets or products.			
Metric 6.1.b	The company explicitly commits to align its capital expenditure plans with the Paris Agreement's objective of limiting global warming to 1.5° Celsius AND to phase out investment in unabated carbon intensive assets or products.			
Sub-indicator 6.2	The company discloses the methodology used to determine the Paris Agreement alignment of its future capital expenditures.			
Metric 6.2.a	The company discloses the methodology and criteria it uses to assess the alignment of its capital expenditure plans with decarbonisation goals, including key assumptions and key performance indicator (KPIs).			
Metric 6.2.b	The methodology quantifies key outcomes, including the percentage share of its capital expenditures that is invested in carbon intensive assets or products, and the year in which capital expenditures in such assets will peak.			

Aligning capital expenditure plans with a 1.5°C pathway

In addition to the CapEx indicator in the Disclosure Framework, the Benchmark also has two complementary indicators on CapEx alignment in the form of Capital Allocation Alignment assessment provided by the Carbon Tracker Initiative (CTI) and the Paris Agreement Capital Transition Assessment (PACTA) team at RMI (Tables 8, 9). These analyses provide additional quantitative information to support the assessment in the Disclosure Framework.

CTI's Capital Allocation Alignment assessment assesses the stranded asset risk of oil and gas companies and electric utilities included in the Benchmark. CTI conducts scenario analysis to examine how potential changes to supply and demand will impact the future of fossil fuel-exposed companies and projects.

Table 8.	Capital	al	location	a	lignment ()
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Electric utilities

Coal phase-out: Has the company announced a full phase-out of coal units by 2040 that is consistent with Carbon Tracker Initiative's (CTI) interpretation of the International Energy Agency's (IEA) Beyond 2°C Scenario (B2DS)?

Gas phase-out: Has the company announced a full phase-out of gas units by 2050 that is consistent with CTI's interpretation of the IEA's B2DS?

Alignment of coal phase-out: The percentage of the company's operating and planned coal capacity that is aligned with CTI's interpretation of IEA's B2DS.

Alignment of gas phase-out: The percentage of the company's operating and planned gas capacity that is aligned with CTI's interpretation of IEA's B2DS.

Oil & gas companies

Company's recent actions: In the most recent full year (2020), were all the company's upstream oil and gas CAPEX projects consistent with the International Energy Agency's (IEA) Beyond 2°C Scenario (B2DS)?

Capex analysis: What percentage of the company's potential future (2021-2030) unsanctioned oil and gas CAPEX is inconsistent with the IEA's B2DS?

Impairment price assessment: (1) Are the company's commodity price forecasts increasing, decreasing, flat or convex? and (2) what is the maximum price in the company's commodity price forecast?

Net zero analysis: What is the company's oil and gas production level in the 2030s (against a 2021 baseline) assuming no new oil and gas projects are sanctioned as stated by the IEA's Net Zero Emissions by 2050 Scenario (NZE)?

Similar to CTI's analysis, RMI (PACTA)'s Capital Allocation Alignment assessment assesses companies' planned CapEx and production output for the coming 5-10 years relative to a range of climate change scenarios to provide insights on how the company's economic activities align with the goals of the Paris Agreement. RMI (PACTA) assesses the electric utilities, steel, cement, aviation, and autos companies assessed under the Benchmark.

Table 9. Capital allocation alignment (RMI (PACTA))			
Indicator 1	Assessment of the company's 2021 technology mix vs. the 2021 sector average.		
Indicator 2	Assessment of International Energy Agency (IEA) scenario alignment for each technology based on 2026 production forecasts.		

4.2 Performance of Asian companies and examples

There has been an improvement in long-term target setting among Asian companies; in the March 2022 Benchmark update, 53% of companies had set a long-term target compared to 40% in March 2021. However, this is still lower than that which was observed across the entire CA100+ universe, as 73% of all focus companies had set a long-term target by March 2022.

Performance also improved slightly regarding the alignment of long-term targets with a 1.5°C pathway; in the March 2022 Benchmark, 21% of Asian companies were aligned with 1.5°C by 2050, whereas in the 2021 Benchmark, only 4% (1 company) was aligned. Performance on short- and medium-term target setting remained much the same from 2021 to 2022.

Further, there was a slight improvement in performance on decarbonisation strategy, with 24% of Asian companies meeting some criteria in March 2022, up from 19% in 2021. However, there was no improvement in scores on capital expenditure allocation, as no Asian companies scored any points on this Indicator in March 2022 or in 2021.

In addition to assessing a company's disclosed decarbonisation and CapEx strategy, it may also be informative for investors to consider other factors when assessing a company's ability to reach the targets that it has set for itself. For example, several of the investors we spoke with for this report indicated that they typically try to understand the company first, including its specific challenges and its approach to strategy and risk management, in order to better understand how a company plans to achieve its target.

Box 7. Case study - POSCO's decarbonisation strategy

The South Korean steel manufacturer **POSCO Holdings Inc.** outlines the elements of its decarbonisation plan and their relative contribution to the anticipated total GHG reduction of the company in its 2020 Climate Action Report.²⁸ In the report, the company provides a visual summary of the expected reductions in GHG emissions from each contribution to its decarbonisation plan. The company has also disclosed both a long-term net zero target and a medium-term interim target covering its most material source of emissions, which comes from its direct operations (Scope 1 emissions). Since the company has disclosed both a medium- and a long-term target, and since its decarbonisation strategy quantifies key elements with respect to the major sources of emissions, the company is able to score full points on Sub-indicator 5.1 of the Disclosure Framework.

4.3 Challenges for engagement

There were several key reasons why companies, including companies headquartered in Asia, did not score points on Disclosure Framework Indicators 2–6, several of which are detailed below:

Lack of short- and/or medium-term targets

Many companies, despite having set net zero commitments and long-term targets, have not yet set short- or medium-term targets that aligned with a 1.5°C pathway. For example, in the March 2022 Benchmark update, only one Asian company had set a short-term target that is aligned with a 1.5°C pathway, and no Asian companies had set a medium-term target that is aligned. Target-setting is an iterative process, with the target ambition increasing across Scopes, coverage and timelines with every new iteration. However, companies and investors should be wary of backloading emissions reduction commitments and should prioritise target setting across all timeframes.

Targets set for subsidiary companies

As with net zero targets, the level at which a target is set determines whether it is eligible to score under the Benchmark. For example, the electric utility **Power Assets Holdings** commits in its 2020 Sustainability Report to ensure the yearly average emissions for its major subsidiary, Hongkong Electric, do not exceed a certain threshold. However, the Benchmark requires companies to set targets that are stated explicitly at the level of the entity under assessment. Since the Power Assets Holdings target has been set at the subsidiary level but not at the level being assessed in the Benchmark, the target is not eligible to be included.

Insufficient detail in decarbonisation strategy

The South Korean oil and gas company **SK Innovation Co. Ltd.** provides some information on its action plans to achieve net zero emission by 2050 goal on its website.²⁹ However, the company's disclosed decarbonisation strategy lacks sufficient details to score points under the Benchmark. This is because for a decarbonisation strategy to score points under the Benchmark, it must specifically relate to the company's GHG reduction targets, it must clearly address the main sources of the company's GHG emissions, and it must lay out a concrete set of measures. While the company has set targets across all material Scopes of emissions for both the medium- and the long-term, the decarbonisation strategy does not provide information on how the company will reduce its Scope 3 emissions, the largest source of emissions for the company.

CapEx disclosure provided but lacking concrete commitments

The Japanese industrials company **Hitachi Ltd.** has disclosed a range of future expenditures related to its efforts to decarbonise in its 2021 Sustainability Report. For example, the company states in the report: "We will further improve production efficiency and energy use efficiency during the production...by adopting and updating highly efficient equipment in our business sites (factories and offices). We will also acquire renewable energy and adopt equipment for it to effectively promote carbon neutrality at our business sites." Hitachi has also disclosed a plan to phase in what it refers to as the Hitachi Internal Carbon Pricing (HICP) system to incentivise capital investments that contribute to its direct GHG

²⁹ SK Innovation Co. Ltd., "SK innovation's Net Zero Ambition." Retrieved from: http://eng.skinnovation.com/esg/netzero.asp

³⁰ Hitachi Sustainability Report 2021, pg. 8, Retrieved from: https://sustainability.hitachi.com/wp-content/uploads/2021/12/en_sustainability2021-1.pdf

reductions.³¹ However, the company has yet to disclose a statement that commits it to align its future capital expenditures with the requirements of the Benchmark.

Similarly, the Japanese oil & gas company **ENEOS Holdings Inc.** discloses a breakdown of its CapEx plan in its 2021 Integrated Report: "Capital investment was allocated in the following ratios: about 60% for the Energy business, 10% for the 0il and Natural Gas E&P business, and 20% for the Metals business, with the remainder allocated to other businesses." However, the company does not explicitly disclose a commitment that its future capital investment is aligned with its long-term GHG reduction target or with the goals of the Paris Agreement.

Box 8. Deep dive - Challenges with capital expenditure (CapEx) commitments

Companies may struggle to set explicit commitments for their CapEx strategies for a number of reasons. For example, concerns over energy security may arise when electric utilities begin to set CapEx targets for electricity production in areas with a low penetration of renewable energy resources.

Further, companies in hard-to-abate sectors that are relying on breakthrough technologies (such as heavy industrial sectors) to meet their decarbonisation goals may not currently have a clear picture of when these technologies will be available to scale up in their own operations. This lack of clarity may result in uncertainty about future investment plans.

In these cases where timelines are less certain, companies may find that committing to phase out planned expenditure in unabated carbon intensive assets or products is still feasible, which would still satisfy partial requirements of the Benchmark.

Although it is not captured by the Benchmark, investors may also look at planned expenditures on climate-positive research, development, and deployment (RD&D) initiatives. Some of the investors we spoke to while writing this report indicated that they are looking for evidence of climate-positive pilot projects and research efforts, given the private sector's important role in commercialising and implementing new technologies.

³¹ Hitachi Sustainability Report 2021, pg. 44, Retrieved from: https://sustainability.hitachi.com/wp-content/uploads/2021/12/en_sustainability2021-1.pdf

MANAGEMENT SYSTEMS AND PROCESSES

- 5.1 The CA100+ Net Zero Company Benchmark expectations
- 5.2 Performance of Asian companies and examples
- 5.3 Challenges and Lessons Learned



5. MANAGEMENT SYSTEMS AND PROCESSES

Engagement priorities for management systems and processes

- 1. Companies must comprehensively disclose their climate lobbying activities and their trade association memberships (Indicator 7).
- 2. Companies must have explicit commitments for the lobbying activities of themselves and their trade associations (Indicator 7).
- 3. Companies must have board level oversight specifically of climate risks; oversight of 'sustainability' more generally is not sufficient (Indicator 8).
- 4. Companies must link their executive remuneration schemes to the company's performance on climate change (Indicator 8).
- 5. Companies must formally acknowledge their role in ensuring a Just Transition (Indicator 9).
- 6. Companies must conduct and publicly disclose the results of a climate-related scenario analysis that includes specific qualitative elements (Indicator 10).

5.1 The CA100+ Net Zero Company Benchmark expectations

The last four Indicators in the Disclosure Framework of the Benchmark assess companies' management systems and processes relating to climate change. These indicators assess how a company addresses climate change risks and opportunities at a company-wide level, and so assess companies' lobbying processes, their internal accountability on climate, their acknowledgement of responsibility for ensuring a Just Transition, and the extent to which they support standardised climate risk reporting against the TCFD Recommendations.

Lobbying disclosures and commitments

The Benchmark assesses company disclosure of their climate change-related lobbying activities in Indicator 7 of the Disclosure Framework (Table 10). This Indicator recognises that the wider regulatory landscape must change to facilitate a 1.5°C future and asks companies to use their power as influencers of public policy to ensure that the regulatory landscape is in line with the goals of the Paris Agreement.

Indicator 7 on climate policy engagement, requires companies to have made a specific commitment to conduct all lobbying in line with the goals of the Paris Agreement and to list their climate-related lobbying activities. Similarly, it requires companies to have made a specific commitment to ensure that the trade associations it is a member of lobby in line with the goals of the Paris Agreement and to list their trade associations memberships. Finally, it requires companies to conduct and publish a review of their trade associations' climate positions and to explain what actions they took as a result of the review.

Table 10. Disclosure Framework Indicator 7 – Climate Policy Engagement		
Sub-indicator 7.1	The company has a Paris Agreement-aligned climate lobbying position and all of its direct lobbying activities are aligned with this.	
Metric 7.1.a	The company has a specific commitment/position statement to conduct all of its lobbying in line with the goals of the Paris Agreement.	
Metric 7.1.b	The company lists its climate-related lobbying activities, e.g. meetings, policy submissions, etc.	
Sub-indicator 7.2	The company has Paris Agreement-aligned lobbying expectations for its trade associations, and discloses its trade association memberships.	
Metric 7.2.a	The company has a specific commitment to ensure that the trade associations the company is a member of lobby in line with the goals of the Paris Agreement.	
Metric 7.2.b	The company discloses its trade associations memberships.	
Sub-indicator 7.3	The company has a process to ensure its trade associations lobby in accordance with the Paris Agreement.	
Metric 7.3.a	The company conducts and publishes a review of its trade associations' climate positions/ alignment with the Paris Agreement.	
Metric 7.3.b	The company explains what actions it took as a result of this review.	

In addition to Indicator 7 of the Disclosure Framework, the Benchmark also has complementary Indicator on lobbying in the form of the Climate Policy Engagement Alignment assessment provided by InfluenceMap (Table 11). InfluenceMap's alignment assessments provide analyses of not only how much the company engages on climate policy, but also how the company's direct engagements on climate policy, and those of its industry associations, are supportive (or obstructive) of the goals of the Paris Agreement.

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Table II.	Climate Pol	icy Engagemen	ıt Alıgnmen	it (InfluenceMap	Ы

lable 11. Climate Policy Engagement Alignment (InfluenceMap)		
Organisation Score (expressed as a percentage from 0 to 100)	A measure of how supportive or obstructive the company's direct engagement is with climate policy aligned with the Paris Agreement, with 0 being fully opposed and 100 being fully supportive. Scores below 50 indicate increasingly significant misalignment between the Paris Agreement and the company's detailed climate policy engagement, with scores below 25 indicating material and significant opposition. Scores between 50 and 74 indicate mixed engagement with Paris-aligned policy. Scores above 75 indicate broad alignment with, and support for, Paris-aligned policy.	
Relationship Score (expressed as a percentage from 0 to 100)	A measure of how supportive or obstructive the company's industry associations are towards climate policy aligned with the Paris Agreement, with 0% being fully opposed and 100% being fully supportive.	
Engagement Intensity (expressed as a percentage from 0 to 100)	A measure of the level of policy engagement by the company, whether positive or negative. Scores above 12 indicate active engagement with climate policy, and scores above 25 indicate highly active or strategic engagement with climate policy. Scores below 5 indicate low-level engagement with climate policy.	

Climate governance: Oversight and Remuneration Policies

Indicator 8 of the Disclosure Framework (Table 12) assesses whether oversight of climate change is embedded in the senior governance policies. It specifically assesses whether the most senior members of the organisation are accountable for ensuring that climate change remains a priority for the business. Indicator 8 also requires companies to disclose evidence of board level oversight of climate change as well as evidence on whether executive remuneration arrangements incorporate climate change performance elements.³³

Table 12. Disclosure Framework Indicator 8 – Climate Governance		
Sub-indicator 8.1	The company's board has clear oversight of climate change.	
Metric 8.1.a	The company discloses evidence of board or board committee oversight of the management of climate change risks.	
Metric 8.1.b	The company has named a position at the board level with responsibility for climate change.	
Sub-indicator 8.2	The company's executive remuneration arrangements incorporate climate change performance elements.	
Metric 8.2.a	The company's CEO and/or at least one other senior executive's remuneration arrangements specifically incorporate climate change performance as a KPI determining performance-linked compensation (reference to 'ESG' or 'sustainability performance' is insufficient).	
Metric 8.2.b	The company's CEO and/or at least one other senior executive's remuneration arrangements incorporate progress towards achieving the company's GHG reduction targets as a KPI determining performance-linked compensation (requires meeting relevant target indicators 2, 3, and/or 4).	

Disclosing Activities contributing to a Just Transition [Beta indicator]

Indicator 9 of the Benchmark's Disclosure Framework asks companies to make a formal acknowledgement of their role in ensuring that the transition to a low-carbon economy is fair and does not adversely impact workers, suppliers, communities or consumers. This indicator therefore highlights the need to take into account any adverse societal effects that the transition may bring, as well as their responsibility to address them, when developing and implementing corporate net zero commitments.

One of the key requirements of this Indicator is that companies anchor this commitment in internationally recognised guidelines on Just Transition: either the Paris Agreement on Climate Change or the International Labour Organisation's (ILO's) Just Transition Guidelines. While the results of the Just Transition indicator have not been made public for the March 2022 Benchmark update, the results from this Indicator will be made public in future Benchmarks, at which point further guidance will be issued.

³³ Indicator 8 also has a requirement for board competence on climate change. However, this is assessed under Disclosure Framework Sub-indicator 8.3, which is not currently publicly assessed.

Alignment with TCFD principles and expectations

The Benchmark also asks companies whether they have aligned with the recommendations of the Task Force on Climate related Financial Disclosures (TCFD) in Indicator 10 of the Disclosure Framework. This is because the consistent use of the TCFD reporting framework across companies provides investors with comparable, company-specific information that they can then use to incorporate climate-related risks and opportunities into their decision-making. In this way, there are some thematic overlaps between the Benchmark's Disclosure Framework and that of the TCFD, although the Benchmark's Disclosure Framework is broader in scope.

Indicator 10 first assesses companies on their general alignment with TCFD core elements and disclosure recommendations (Disclosure Framework Sub-indicator 10.1). Since scenario analysis is such an important aspect of assessing climate-related risks and opportunities, Disclosure Framework Sub-indicator 10.2 assesses companies on whether they employ climate-scenario planning to test their resilience (and if so, how robust is this process).

Table 13. Disclosure Framework Indicator 10 – TCFD Disclosure		
Sub-indicator 10.1	The company has committed to implement the recommendations of the Task Force on Climate related Financial Disclosures (TCFD).	
Metric 10.1.a	The company explicitly commits to align its disclosures with the TCFD recommendations OR it is listed as a supporter on the TCFD website.	
Metric 10.1.b	The company explicitly sign-posts TCFD aligned disclosures in its annual reporting OR publishes them in a TCFD report.	
Sub-indicator 10.2	The company employs climate-scenario planning to test its strategic and operational resilience.	
Metric 10.2.a	The company has conducted a climate-related scenario analysis including quantitative elements and has disclosed its results.	
Metric 10.2.b	The quantitative scenario analysis explicitly includes a 1.5° Celsius scenario, covers the entire company, discloses key assumptions and variables used, and reports on the key risks and opportunities identified.	

Climate accounting and audit alignment (provisional) (from CTI and CAAP)

Finally, the Benchmark includes a provisional set of indicators provided by CTI and CAAP that assess whether a company's accounting practices and related disclosures, and the auditor's report of these disclosures reflect the effects of climate risk, the global move towards a net zero emissions pathway and the goals of the Paris Agreement. This assessment covers all focus companies and is considered Provisional, which means that the March 2022 iteration of the Benchmark includes public assessments of all focus companies against the indicators, but that these indicators are subject to change in future iterations of the Benchmark.

Table 14. Climate Accounting and Audit [provisional] (CTI and CAAP)		
Indicator 1	The audited financial statements and notes thereto incorporate material climate-related matters.	
Indicator 2	The audit report demonstrates that the auditor considered the effects of material climate-related matters in its audit.	
Indicator 3	The audited financial statements and notes thereto incorporate the material impacts of the global drive to net zero greenhouse gas (GHG) emissions by 2050 (or sooner) which for the purpose of this assessment is considered to be equivalent to achieving the Paris Agreement goal of limiting global warming to no more than 1.5°C.	

5.2 Performance of Asian companies and examples

Asian companies showed relatively good performance on several aspects of climate change management systems and processes in the March 2022 Benchmark update. For example, 68% of Asian companies demonstrate some level of board oversight of climate change risks (Disclosure Framework Sub-indicator 8.1), although far fewer (21%) link their executive remuneration schemes to performance on climate change (Sub-indicator 8.2). Similarly, over half (62%) of Asian companies have committed to align with the recommendations of the TCFD in some way (Sub-indicator 10.1). While these performance metrics are some of the highest across Asian companies, they are still lower than what is seen across all CA100+ focus companies, as 90% of all CA100+ focus companies meet some criteria on climate governance, and 89% meet some criteria on TCFD disclosure.

On the other hand, there was generally poor performance by Asian companies on the disclosure of climate policy engagement (Disclosure Framework Indicator 7), with only a small handful of companies scoring any points on most metrics in this Indicator. The exception is Disclosure Framework Metric 7.2.b (disclosure of trade associations) where 35% of companies scored points. Across the CA100+ universe, the majority (71%) of companies disclose some portion of their climate policy engagement actions.

Box 9. Case study - Toray's Executive remuneration policies

While Asian companies performed reasonably well in terms of their board oversight of climate change (Disclosure Framework Sub-indicator 8.1), only a handful of companies have incorporated climate change elements into their executive remuneration policies. One of these companies was the Japanese chemicals company **Toray Industries Inc.**, which discloses in its 2021 CDP response that: "Incentive will be given, if each target of reducing GHG emissions per unit of sales, increasing Energy efficiency, business expansion of Green Innovation business, etc. is achieved." The company therefore not only includes climate change performance in the compensation scheme of the CEO and/or at least one other senior executive, but also includes its own GHG reduction targets as a KPI determining this performance.

5.3 Challenges and Lessons Learned

While there was generally limited disclosure by Asian companies on the lobbying indicators of the disclosure framework (Indicator 7) in the March 2022 Benchmark (see Box 10), about one third of Asian companies do not demonstrate evidence of board level oversight of the management of climate change risks (Disclosure Framework Metric 8.1.a) and about half of Asian companies in the Benchmark (18 companies) have named a position at the board level with responsibility for climate change (Disclosure Framework Metric 8.1.b).

In addition, several companies have stated that they conducted climate-related scenario analysis but have not publicly disclosed the results of this analysis, which is a specific requirement of Disclosure Framework Metric 10.2.a. Further, although a handful of companies did disclose the results of their quantitative climate-related scenario analysis, their scenario analysis did not always include all of the required qualitative elements required by Disclosure Framework Metric 10.2.b.

Box 10. Deep dive - Climate Policy Engagement and the role of positive lobbying

Disclosing lobbying activities is relevant to investors because corporate lobbying can significantly influence public policy – both by promoting climate action and by delaying it. In general, there was limited performance by Asian companies on the lobbying indicators of the Disclosure Framework in the March 2022 Benchmark. For example, no Asian companies disclosed a specific commitment to conduct all lobbying in line with the goals of the Paris Agreement (Disclosure Framework Metric 7.1.a).

In addition, only two companies comprehensively disclosed their own climate-related lobbying activities (Disclosure Framework Metric 7.1.b): **Daikin Industries Ltd.** and **China Steel Corp.** For example, Daikin, the Japanese industrials company, discloses a comprehensive list of lobbying activities around the globe on its website, covering activities in the UAE, Tanzania, Brazil, Latin America, and globally.³⁵ Further, the only Asian company that had published a review of the climate positions of its trade associations (Disclosure Framework Sub-indicator 7.3) was the Japanese car manufacturer **Toyota Motor Corp.** in its report "Toyota's Views on Climate Public Policies 2021", this is the result of repeated engagements from investors mainly from Europe in view of Toyota's inconsistent positioning on climate policies.

Engaging on corporate lobbying activities is new to investors in the region and may not currently be a priority for some engagements. Historically, companies in Asia have tended to focus on legal compliance instead of policy engagement. A focus on positive lobbying may be better suited for Asian companies and will require a mindset change that would apply to all issues, including climate change. Several investors that we spoke to indicated that more regulatory engagement was needed from companies due to a lack of momentum in the regulatory environment and the positive influence that corporates can have on climate policy in Asian markets.



GUIDANCE ON CA100+ ENGAGEMENT

- 6.1 The Benchmark as an engagement tool
- 6.2 Key Investor insights

6. GUIDANCE ON CA100+ ENGAGEMENT

To prepare this report we conducted interviews with several asset managers active in Asian markets about how they use the Benchmark as an engagement tool, and any challenges they have encountered. These interviews have provided valuable insights into the practicalities of engagement in the Asian markets, as well as learnings for CA100+ specific engagement in Asia. We summarise these findings below.

Key takeaways from interviews with investors

- 1. The Benchmark is a useful engagement tool as it allows investors to rapidly identify areas where companies are lagging with respect to climate disclosure and action.
- 2. Engagements can be more fruitful when a long-term, trust-based relationship is built between investor and investee.
- 3. State-owned enterprises (S0Es) may need a different set of engagement priorities and approach to engagement than publicly traded companies due to their ties to the state.
- 4. Collaborations between local and international investors can serve as an impetus for corporate climate action as this demonstrates a convergence of message and priorities.

6.1 The Benchmark as an engagement tool

The investors that we spoke to generally found the Benchmark to be a useful engagement tool with discussing expectations on climate with investees. In particular, it can serve as a useful starting point for engagement; its comprehensive structure and public availability allows investors to quickly identify the areas of climate action that the company is lagging on at a granular level, both in general and relative to its peers. This can be particularly valuable when it comes to identifying low-hanging fruits for companies. Further, the Benchmark represents a convergence of investor opinions regarding expectations on climate. The consistent usage of the Benchmark as an engagement tool reinforces its utility as a driving factor in company action.

"After examining the Benchmark scores, we have a good idea about which 2 or 3 areas need to be flagged. And when institutional investors communicate with corporates, corporates get a convergence of message. That's particularly useful when everyone can align with benchmarks that they're familiar with." - Anthony Cheung, Polymer Capital

Further, the Benchmark can be used as a way to easily monitor company progress, as it provides clear year-on-year assessment updates with indications of where progress has been made by companies. For example, the Benchmark allows investors to see where companies have progressed from Stage 1 (no net zero commitment) to Stage 2 (committed to reach net zero emissions). However, the Benchmark is not built to monitor progress for companies who are making

progress outside of the measured areas. In these cases, it may be helpful to monitor company progress using other resources like the Transition Pathway Initiative's Management Quality scores. These assessments are designed to evaluate the governance processes necessary to start delivering concrete climate targets and strategies.

6.2 Key Investor insights

When speaking to investors, we identified a few key features of effective engagement strategies in Asian markets which are covered below.

Build a long-term, trust-based relationships

There was strong consensus among the investors we spoke to about the importance of building supportive, long-term oriented, trust-based relationships with companies at a high level (e.g. C Suite executives). The importance of this approach may become especially relevant in Asian markets, as the investors we spoke to typically relied largely on engagement as opposed to other strategies such as filing resolutions to influence their investees' behaviour. In particular, taking an educational approach and focusing on discussing barriers to action has proven to be most helpful in some cases. Often, these types of approaches involved landscape analyses of how peers are performing on a given topic. We found that a fruitful relationship can be established through maintaining regular conversations with Board-level employees, as this allows investors to establish to what extent climate goals have been integrated in the company's top-down management.

Develop tailored strategies for SOEs

The investors we spoke to also commented that state-owned enterprises (SOEs) by their nature tend to be strongly influenced by governmental expectations and tend to take their points of reference from the goals and policies adopted by their home governments. As a result, the targets and general approach to sustainability demonstrated by SOEs tends to reflect that of their home government, and third-party expectations may be perceived as being relevant to the company's purpose and activities. This can mean that SOEs will move at the pace of the market, as they tend to align with the norms and expectations of the societies within which they work. However, this can prove challenging for certain issues evaluated by the Benchmark, such as executive remuneration.

"Our approach to engaging with SOEs is very different from our approach to engaging with private companies. For SOEs, we sometimes do not regard them as a pure enterprise but instead as a multi-purpose entity. They not only have to fulfil their mission in terms of financial returns to the shareholders, but also they have to play additional roles in terms of benefitting society and other stakeholders. This is something that might not be controlled by the company management and cannot be impacted by the minority shareholders." - Miranda Zhao, China Asset Management Co., Ltd.

Pair local and international perspectives and expertise

In addition, several investors we spoke to reflected on the utility of having an engagement approach where local and international investors collaborate towards a common goal. Investors found that when local and international priorities were aligned, it became clear to companies that both domestic and global agendas were aligned. In particular, investors found that having a local perspective be represented in the engagement made engagements more fruitful, as the recognition of the local regulatory landscape and norms can be a critical factor for making progress in Asian markets. This reflection illuminates the need to tailor engagement approaches to the particular sector and market, and a focus on engaging companies to build their capacity to transition to net zero. For further insight, please read Investor Group on Climate Change's guide to investor expectations for corporate climate transition plans.³⁶

"One of our priorities as a local investor is to make sure that we can connect our investees with overseas investors. This is an important part of our strategy."

- Sophia Cheng, Cathay Financial Holdings

³⁶ Investor Group on Climate Change, Corporate Climate Transition Plans: A guide to investor expectations, https://igcc.org.au/wp-content/uploads/2022/03/IGCC-corporate-transition-plan-investor-expectations.pdf

Conclusion

This Guide explains how investors can engage with Asian and emerging market companies using the Benchmark. It also shows how the Benchmark can support the development of long-term, trust-based relationships between investors and companies, and how domestic and international investors can work together to support Asian and emerging market companies in achieving the goal of net zero.

Looking at the substance of this engagement, the Guide finds four key areas where investors should focus when engaging with companies on climate action, especially with respect to the Benchmark:

- In order for company net zero commitments to be recognised under the Benchmark, they must be set no later than 2050. National-level ambitions, including nationally determined contributions to the goals of the Paris Agreement (NDCs) set the baseline expectation on companies, but the companies eventually need to align with goal of global net zero by 2050 outlined in the Benchmark.
- 2. Net zero commitments (and all interim targets) must be set for the **specific entity being evaluated** by the Benchmark, as group- or subsidiary-level commitments are not eligible to score under the Benchmark.
- 3. Companies must make explicit commitments to align their capital expenditures with the Paris Agreement, as providing detail on capital expenditure plans is not sufficient to score on Indicator 6.
- 4. Companies are expected to **disclose on their climate lobbying activities** to score on Indicator 7, even though taking proactive steps to disclose corporate lobbying activities may not currently be a priority for companies headquartered in some Asian markets.

Table of Acronyms and Terms

Term	Meaning
AIGCC	Asia Investor Group on Climate Change
B2DS	Beyond 2°C Scenario
CA100+	Climate Action 100+
CapEx	Capital Expenditure
CE0	Chief Executive Officer
CO _{2e}	Carbon dioxide (CO ₂) equivalent
GHG	Greenhouse gas
GIC	Global Investor Coalition on Climate Change
IEA	International Energy Agency
IGCC	Investor Group on Climate Change
IIGCC	Institutional Investor Group on Climate Change
ILO	International Labour Organisation
KPI	Key performance indicator
NDC	Nationally determined contribution
PRI	Principles for Responsible Investment
S0E	State-owned enterprise
TCFD	Task Force on Climate-related Financial Disclosures
TPI	Transition Pathway Initiative

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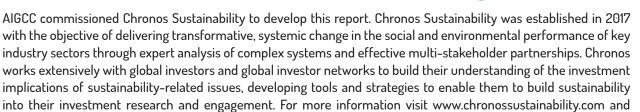
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About Chronos Sustainability



About this Project

@ChronosSustain.

The Climate Action 100+ is an investor initiative to ensure the world's largest corporate greenhouse gas emitters take necessary action on climate change. More than 700 investors with over \$68 trillion in assets under management are engaging companies on improving governance, curbing emissions and strengthening climate-related financial disclosures.

Within the initiative there are 33 Asian focus companies in Climate Action 100+ co-ordinated by the AIGCC-PRI Asia Engagement Working Group. As of June 2022, over 100 investor organisations are engaging with Asian companies as lead or collaborators, of which 46 investors are asset managers or asset owners based in an Asian market. The Benchmark is expected to continue to evolve with future iterations of the Benchmark being consulted more broadly across signatories of Climate Action 100+. For further questions or feedback specifically on how this project or other future projects could further engage Asian companies to align to the Benchmark, please email benchmark@climateaction100.org.

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