

SUPPORTING CLIMATE ACTION 100+ ENGAGEMENT IN ASIA:

AN INVESTOR GUIDE



GUIDE COMMISSIONED BY:











TABLE OF CONTENTS

1. INTRODUCTION		3
1.1	About Climate Action 100+ and the CA100+ Net Zero Company Benchmark	4
1.2	About this Guide	5
1.3	The Structure of the Guide	5
2. ABOU	T THE CA100+ NET ZERO COMPANY BENCHMARK	6
2.1	Objectives and Expectations of the CA100+ Net Zero Company Benchmark	7
2.2	The CA100+ Net Zero Company Benchmark Indicators	7
2.3	Using the Climate Action 100+ Net Zero Company Benchmark	8
3. ABOU	T THE TRANSITION PATHWAY INITIATIVE (TPI)	9
3.1	TPI Management Quality	10
3.2	TPI Carbon Performance	11
3.3	TPI Datasets	12
	3.3.1 TPI Outputs: Management Quality	12
	3.3.2 TPI Outputs: Carbon Performance	14
3.4	TPI Insights: Comparative Analysis	15
4. HARNI	ESSING TPI TO SUPPORT CA100+ ENGAGEMENT	17
4.1	Preparing for Engagement: Assessing the Company's Quality of Management	18
4.2	Understanding Companies' Climate Change Performance	20
4.3	Bringing TPI and CA100+ Together	22
ACKNOW	/LEDGEMENTS	23



- 1.1 About Climate Action 100+ and the CA100+ Net Zero Company Benchmark
- 1.2 About this Guide
- 1.3 The Structure of the Guide

1. INTRODUCTION

1.1 About Climate Action 100+ and the CA100+ Net Zero Company Benchmark

CA100+ is an investor-led global collaborative initiative to ensure the world's largest corporate greenhouse gas emitters take necessary action on climate change¹. CA100+ is seeking commitments from company boards and senior management to:

- Implement a strong governance framework which clearly articulates the board's accountability for and oversight of climate change risk.
- 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.
- 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). These disclosures will enable investors to assess the robustness of companies'
 business plans against a range of climate scenarios, including well below two degrees and will help improve investment
 decision-making.

In March 2021, CA100+ published its Net-Zero Company Benchmark². This Benchmark assesses each focus company's alignment with the key commitment priorities of the initiative: to achieve clear commitments to cut emissions, to improve governance and to strengthen climate-related financial disclosures. Companies are assessed on each of the Benchmark's 10 disclosure assessment indicators and their related sub-indicators and metrics. These, collectively, reflect the overall engagement goals of CA100+.

The CA100+ Net Zero Company Benchmark aims to deliver an ambitious and demanding agenda. The investors participating in Climate Action 100+ recognise that decarbonisation of the global economy is complex, and that engagement must be tailored to different businesses, regions and sectors, and to the current practices and performance in the companies that are being engaged with. Investors engaging in Asian and emerging markets have experienced significant differences between these markets; these include differences in policy and regulation, in the influence of different stakeholders (in particular governments) on company practice, and in company practice and performance on climate change.

Understanding the Importance of Nationally Determined Contributions (NDCs)

Companies in Asian and emerging markets have set emission reduction targets which are often 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 Asian governments' expectations of companies.

While, in aggregate, NDCs currently fall short of what is needed to keep global temperature rise below 1.5°C, or even 2°C, above pre-industrial levels³, they are a key tool for driving greenhouse gas emission reductions. They also have a ratchet mechanism which encourages governments to review their targets and tighten their emission reduction ambition every five years. The first NDC Global Stocktake will take place in 2023 and we expect many Asian countries to raise their carbon reduction ambitions as part of this process. China, Japan and South Korea having already made net zero commitments, and we expect other countries in the region to make similar commitments. These changes are creating pressure for companies to increase their level of ambition and to accelerate action to reduce their greenhouse gas emissions. With the second NDC Global Stocktake scheduled for 2028, companies will face further pressure to take action.

¹ https://www.climateaction100.org/

² https://www.climateaction100.org/progress/net-zero-company-benchmark/

³ UN Environment Programme (2019), Emissions Gap Report 2019, https://www.unenvironment.org/interactive/emissions-gap-report/2019/

1. INTRODUCTION | 1.2 About this Guide

1.2 About this Guide

The CA100+ Net Zero Company Benchmark sets out the endpoints that CA100+ is trying to achieve. While companies have generally welcomed and supported Climate Action 100+, many see CA100+ as extremely ambitious, both in terms of the emission reductions and in terms of the governance structures that are being sought from companies.

Investors recognise the practical challenges faced by these companies. As part of their CA100+ engagement they have encouraged companies to establish robust management systems and processes; these are necessary building blocks to enable companies to respond effectively to the CA100+ Net Zero Company Benchmark. These systems and processes include allocating board and senior management responsibilities for climate change, conducting an assessment of the risks and opportunities presented by climate change for their business, establishing the data management infrastructure needed to properly assess and track performance, and allocating budgets and resources for taking action.

This Guide provides guidance to investors on how they can engage Asian and emerging market companies in understanding how the Benchmark relates to them. It has a particular focus on how investors can work with companies to establish management systems and processes, as a necessary interim action before implementing the measures set out in the CA100+ Net Zero Company Benchmark.

This Guide can also be used by CA100+ companies, to understand what investors expect in terms of climate change management systems and processes, and to respond effectively and constructively to investor engagement. For practical examples of how companies are taking action, including case-studies of Asian companies, see the latest CA100+ Progress Report.⁴

1.3 The Structure of the Guide

The Guide is structured as follows:

- Section 2 provides an overview of the key features of the CA100+ Net Zero Company Benchmark, including notes on how companies are assessed and on how the results will be presented.
- Section 3 provides an overview of the Transition Pathway Initiative (TPI)⁵, an investor-supported tool that assesses companies' management quality and carbon performance. The introduction to TPI is important because (a) TPI is providing the data that underpins the CA100+ Net Zero Company Benchmark, (b) TPI provides a number of other data points and indicators that are helpful to investor engagement, in particular for companies who are at the early stages of managing climate change, (c) TPI covers a much wider universe of companies than CA100+ and therefore provides a useful peer comparison for Asian and emerging market companies.
- Section 4 discusses how TPI might be used to support CA100+ engagement, e.g. in preparing for company meetings, in understanding a company's quality of management and in assessing a company's climate change performance.

⁴ https://www.climateaction100.org/wp-content/uploads/2020/12/CA100-Progress-Report.pdf

⁵ https://www.transitionpathwayinitiative.org/



- 2.1 Objectives and Expectations of the CA100+ Net Zero Company Benchmark
- 2.2 The CA100+ Net Zero Company Benchmark Indicators
- 2.3 Using the Climate Action 100+ Net Zero Company Benchmark

2. ABOUT THE CA100+ NET ZERO COMPANY BENCHMARK

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

The Benchmark has been designed to clarify investor expectations and to evaluate focus company action and level of ambition in tackling climate change. It is aligned with existing leading climate disclosure frameworks, including TCFD, and offers a consistent approach to assessing focus companies.

Climate Action 100+ seeks to focus investor action on the world's largest greenhouse gas emitters, including emissions across the value chain, and companies that present the greatest climate-related risk to investors' portfolios or that have a significant opportunity to drive a broader net-zero economy transition.

The assessments of the CA100+ Net Zero Company Benchmark released in March 2021 covers 159 companies, including 32 from Asia as set out in the table below.

Aneka Tambang Tbk (ANTAM)	Nissan Motor Co. Ltd
Anhui Conch Cement Company Limited	NTPC Ltd
Bumi Resources	Oil & Natural Gas
China National Offshore Oil Corporation (CNOOC) Limited	Panasonic Corporation
China Petroleum & Chemical Corporation (Sinopec)	PetroChina Co. Ltd
China Shenhua Energy	POSCO
China Steel Corporation	Power Assets Holdings Limited
Coal India	PTT
Daikin Industries, Ltd.	Reliance Industries
ENEOS Holdings Inc	Saic Motor Corporation
Formosa Petrochemical	SK Innovation Co Ltd
Hitachi, Ltd.	Suzuki Motor Corporation
Hon Hai Precision Industry	Toray Industries, Inc.
Honda Motor Company	Toyota Motor Corporation
Korea Electric Power Corp	United Tractors
Nippon Steel Corporation	Vedanta Ltd

2.2 The CA100+ Net Zero Company Benchmark Indicators

The Benchmark supports this objective by providing investors and other stakeholders with a tool that is both transparent and robust to facilitate focus company engagement and action. The Benchmark – which is also available in Chinese, Japanese and Korean⁶ – assesses companies against ten indicators (see Box 1). Each indicator comprises a number of sub-indicators and metrics (see example in Box 2).

Each metric is assessed on a Yes/No basis based on information and evidence published by the company.

Box 1: Climate Action 100+ Net Zero Company Benchmark Indicators			
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 to 2035) GHG reduction target(s)			
Indicator 4 : Short-term (2020 to 2025) GHG reduction target(s)			
Indicator 5 : Decarbonisation strategy			
Indicator 6 : Capital allocation alignment			
Indicator 7 : Climate policy engagement			
Indicator 8 : Climate Governance			
Indicator 9 : Just Transition Note: Companies will not be assessed against this indicator in the 2021 Benchmark.			
Indicator 10: TCFD Disclosure			

2. ABOUT THE CA100+ NET ZERO COMPANY BENCHMARK | 2.2 The CA100+ Net Zero Company Benchmark Indicators

Box 2: An example of the presentation of Indicator, Sub-indicators and Metrics

Indicator 10: TCFD Disclosure

Sub-indicator 10.1 - The company has committed to implement the recommendations of the Taskforce on Climate-related Financial Disclosures (TCFD.)

Metric 10.1a. The company explicitly commits to align its disclosures with the TCFD recommendations OR it is a listed as a supporter on the TCFD website.

Metric 10.1b. 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 10.2a. The company has conducted a climate-related scenario analysis including quantitative elements and disclosed its results.

Metric 10.2b. The quantitative scenario analysis explicitly includes a 1.5° Celsius scenario, covers the entire company, discloses key assumptions and variables used, and the reports on key risks and opportunities identified.

2.3 Using the Climate Action 100+ Net Zero Company Benchmark

For each company, CA100+ publishes a company assessment containing factual information about the company. The assessments indicate how the company performs (i.e. Yes/No) against each relevant metric, as well as against each sub-indicator (Yes/No/Partial) and indicator (Yes/No/Partial). The company assessments do not present an overall (or aggregate) score or ranking for the company.

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

While the assessments provide a clear account of how each company performs against the CA100+ Net Zero Company Benchmark, this information is not always sufficient to enable investors to understand how best to engage with the company. There are two categories of company that are likely to be particularly relevant in Asian markets.

The first are those who perform poorly across all elements of the Benchmark. Many of these are companies that need to strengthen their climate change-related management systems and processes as a necessary first step in responding to the CA100+ agenda. When engaging with these companies, the discussions of management quality assessments in Sections 3.3 and 4.1 of this report are likely to be particularly useful.

The second are those who perform poorly on those questions relating to whether they align with net zero or a 1.5 degrees trajectory in the short, medium and long-term (indicators 2.3, 3.3 and 4.3), but who perform reasonably well in other elements of the CA100+ Net Zero Company Benchmark. As discussed in Section 1 above, the emission reduction targets set by many companies in Asian and emerging markets have been strongly influenced by national policy commitments on climate change. For investors engaging with these companies, the discussions of carbon performance assessments in Sections 3.4 and 4.2 of this report will be helpful in understanding how close the company is to aligning with a net zero benchmark.



3. ABOUT THE TRANSITION PATHWAY INITIATIVE (TPI)⁷

- 3.1 TPI Management Quality
- **3.2** TPI Carbon Performance
- **3.3** TPI Datasets
 - **3.3.1** TPI Outputs: Management Quality
 - 3.3.2 TPI Outputs: Carbon Performance
- **3.4** TPI Insights: Comparative Analysis

3. ABOUT THE TRANSITION PATHWAY INITIATIVE (TPI)



The Transition Pathway Initiative (TPI) is a global initiative led by asset owners and supported by asset managers. The TPI's methodology was developed by an international group of asset owners in partnership with the Grantham Research Institute on Climate Change and the Environment at the London School of Economics (LSE), supported by data from FTSE Russell.

TPI assesses companies on two dimensions based on publicly available information:

- Management quality: The quality of companies' management of their greenhouse gas emissions and of risks and opportunities related to the low-carbon transition.
- Carbon performance: How companies' carbon performance now and in the future compares to the international targets and national pledges made as part of the Paris Agreement.

In total, TPI covers approximately 400 companies including the 159 companies covered by CA100+.

TPI's assessments are made publicly available through the TPI website at:

https://www.transitionpathwayinitiative.org/sectors

3.1 TPI Management Quality

The TPI framework assesses companies against nineteen indicators, covering issues such as company policy, emissions reporting and verification, targets, strategic risk assessment and executive remuneration (see Box 3). Each metric is assessed on a Yes/No basis based on information and evidence published by the company.

Based on their performance against these indicators, companies are placed on one of five levels as follows:

- Level 0 Unaware of (or not Acknowledging) Climate Change as a Business Issue
- Level 1 Acknowledging Climate Change as a Business Issue
- Level 2 Building Capacity
- Level 3 Integrated into Operational Decision-making
- Level 4 Strategic Assessment

Box 3: TPI Indicators

Level 0 : Unaware of (or not Acknowledging) Climate Change as a Business Issue

Question 1 : Does the company acknowledge climate change as a significant issue for the business?

Level 1 : Acknowledging Climate Change as a Business Issue

Question 2 : Does the company recognise climate change as a relevant risk and/or opportunity for the business?

Question 3: Does the company have a policy (or equivalent) commitment to action on climate change?

Level 2 : Building Capacity

Question 4 : Has the company set greenhouse gas emission reduction targets?

[Note: These may be qualitative or quantitative]

Question 5 : Has the company published information on its operational (Scope 1 and 2) greenhouse gas emissions?

Box 3: TPI Indicators

Level 3 :	Integrating into Operational Decision-Making			
Question 6 :	Has the company nominated a board member or board committee with explicit responsibility for oversight of the climate change policy?			
Question 7 :	Has the company set quantitative targets for reducing its greenhouse gas emissions?			
Question 8 :	Does the company report on Scope 3 emissions?			
Question 9 :	Has the company had its operational (Scope 1 and/or 2) greenhouse gas emissions data verified?			
Question 10:	Does the company support domestic and international efforts to mitigate climate change?			
Question 11 :	Does the company disclose its membership and involvement in trade associations engaged in climate issues?			
Question 12:	Does the company have a process to manage climate-related risks?			
Question 13:	Does the company disclose materially important Scope 3 emissions?			
(certain sectors only)				
Level 4 :	Strategic Assessment			
Question 14:	Has the company set long-term quantitative targets for reducing its greenhouse gas emissions?			
Question 15 :	Does the company's remuneration for senior executives incorporate climate change performance?			
Question 16 :	Does the company incorporate climate change risks and opportunities in their strategy?			
Question 17:	Does the company undertake climate scenario planning?			

3.2 TPI Carbon Performance

Companies' carbon performance are assessed using the modelling conducted by the International Energy Agency (IEA) for its biennial Energy Technology Perspectives report. This modelling is used to translate emissions targets made at the international level into sectoral benchmarks, against which the performance of individual companies can be compared. This framework is known as the Sectoral Decarbonization Approach.

Question 19: Does the company ensure consistency between its climate change policy and the positions taken by

TPI uses 3 benchmark scenarios, which in most sectors are:

Question 18: Does the company disclose an internal price of carbon?

trade associations of which it is a member?

- Paris Pledges, consistent with emissions reductions pledged by countries as part of the Paris Agreement (i.e. NDCs).
- 2 Degrees, consistent with the overall aim of the Paris Agreement, albeit at the low end of the range of ambition.
- Below 2 Degrees, consistent with a more ambitious interpretation of the Paris Agreement's overall aim.

Note: TPI will switch to a 1.5 degrees benchmark once the data needed to construct such a benchmark are available from the International Energy Agency (expected May 2021).

Benchmarking is sector-specific and based on emissions intensity (e.g. for electricity utilities, it is tonnes of CO_2 per MWh electricity generated).

The TPI carbon performance assessments are used by CA100+ to assess whether companies long, medium and short-term targets are aligned with the goal of limiting warming to 1.5°C (CA100+ sub-indicators 2.3, 3.3 and 4.3 respectively). The CA100+ Net Zero Company Benchmark released in March 2021 will use the TPI below 2°C scenario. This will be replaced by a 1.5°C scenario when the IEA releases sufficient data to enable TPI to produce 1.5°C aligned sectoral benchmarks.

3.3 TPI Datasets

All of the data for all of the companies covered by TPI can be downloaded in Excel format from: https://www.transitionpathwayinitiative.org/sectors/user_download_all

These spreadsheets also provide the following information for each company:

- Company Name
- Geography (country of listing)
- Sector
- Whether it is a CA100+ focus company or not
- Whether the company is classes as large or medium sized
- ISINs
- SEDOL
- MQ Publication Date

In addition, TPI provides a spreadsheet with the sectoral benchmarks.

3.3.1 TPI Outputs: Management Quality

Through the TPI website, investors can analyse how specified groups of companies perform. Figure 1 presents analysis for the aviation sector.

Figure 1: Overall Management Quality Assessment for the Aviation Sector (Source: TPI)



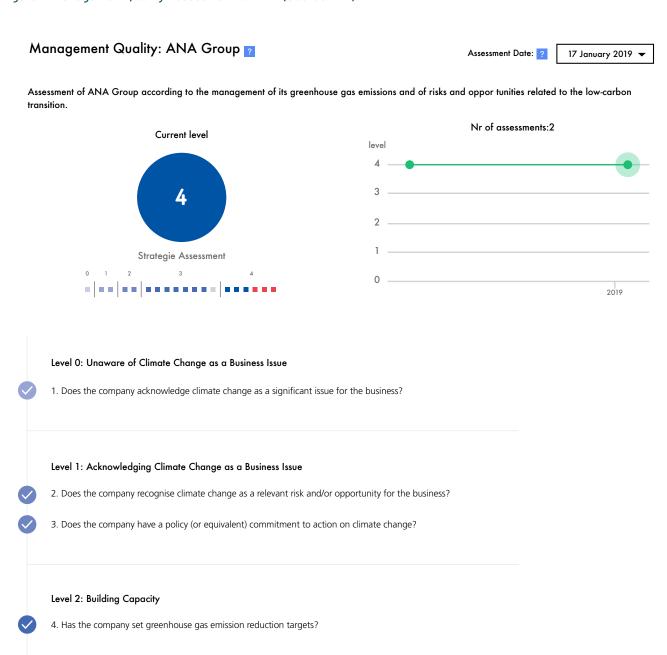
3. ABOUT THE TRANSITION PATHWAY INITIATIVE (TPI) | 3.3.1 TPI Outputs: Management Quality

Investors can also analyse the management quality performance of individual companies. For example, Figure 2 presents the example of ANA Group.

The data provided by TPI includes:

- The date that the company was last assessed.
- The company's overall management quality score.
- Trends in the company's management quality score.
- The company's performance (Yes/No) on a question by question basis.

Figure 2: Management Quality Assessment for ANA (Source: TPI)



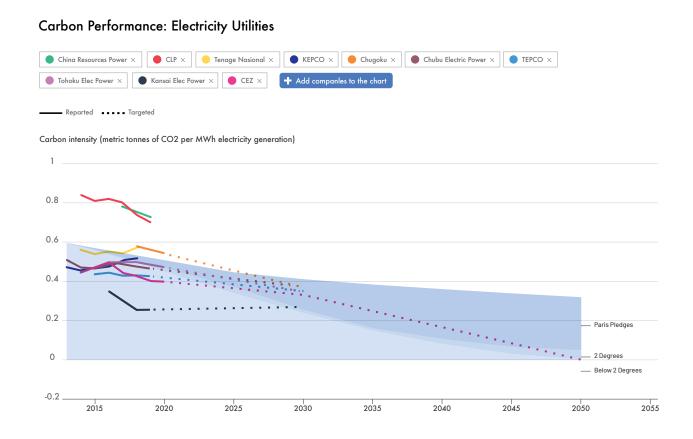
3.3.2 TPI Outputs: Carbon Performance

Through the TPI website, investors can see how companies within a sector compare to each other. Figure 3 presents the example of the electricity sector. This analysis allows investors to understand:

- How current and future carbon performance compares to the relevant sectoral benchmark.
- How far companies, individually or collectively, are from the relevant sectoral benchmark; this may be the Paris Pledges benchmark, the 2 degrees benchmark or the below 2 degrees benchmark (which is used for the CA100+ Net Zero Company Benchmark).

Note: TPI will switch to a 1.5 degrees benchmark once the data needed to construct such a benchmark are available from the International Energy Agency (expected May 2021).

Figure 3: Carbon Performance Assessment of Selected Electricity Companies (Source: TPI)



Investors can also analyse the historic, current and expected future performance of an individual company (see Figure 4). This analysis allows investors to understand:

- How the company's current and future carbon performance compares to the relevant sectoral Benchmark.
- How far the company is or will be from the relevant sectoral benchmark (this may be the Paris Pledges benchmark, the 2 degrees benchmark or the below 2 degrees benchmark (which is used for the CA100+ Net Zero Company Benchmark). The pop-up box (see Figure 4) allows this assessment to made at any point in time between the present and 2050 (or as far as the company's targets extend if shorter than 2050).

Figure 4: Carbon Performance Assessment of Tohoku Electric Power (Source: TPI)

Carbon Performance: Electricity Utilities + Add companles to the chart Tohoku Elec Power × Reparted ... Targeted Carbon intensity (metric tonnes of CO2 per MWh electricity generation) 0.7 0.6 2026 Carbon intensity (metric tonnes of CO2 per MWh electricity generation) - - Tohoku Elec Power (targeted) 0.40 0.4 Paris Pledges 0.432 2 Degrees 0.338 0.3 Below 2 Degrees 0.31 0.2 Paris Pledge: 0.1 2 Degrees - Below 2 Degrees -0.1

3.4 TPI Insights: Comparative Analysis

2020

2025

Figure 5 provides TPI's analysis of Asian companies, presenting stand-alone management quality and carbon performance analysis for those countries where there is a reasonable number of companies, and then an aggregate analysis for companies in other Asian countries. Returning to the discussion in Section 2.3, there are two key conclusions to be drawn.

2035

2040

2045

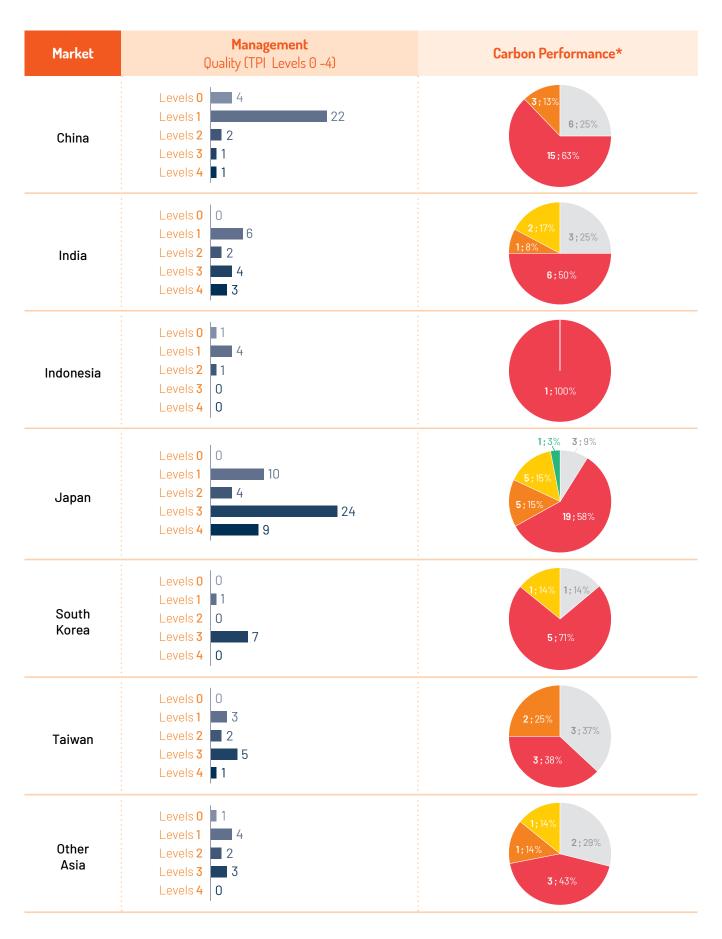
2050

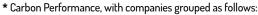
2030

The first is that approximately half the Asian companies are assessed as being on TPI Levels 0 to 2, suggesting that they have significant gaps in their carbon management systems and processes. There are, however, notable outliers; for example, a majority of the assessed companies in Japan, South Korea and Taiwan are in TPI Levels 3 or 4, indicating that these companies already have reasonably well-developed management systems and processes.

The second is that while only one Asian company is assessed as being aligned with a well below two degrees scenario, almost a quarter (22 of the 90 companies for whom a carbon performance assessment methodology is available) are aligned with the global Paris Pledges (i.e. the global average of national NDCs). When we consider that many Asian countries' NDCs are higher than the aggregate Paris Pledges, it is likely that a higher proportion of companies are aligned with their national NDCs. This finding reinforces the importance of investors looking beyond 1.5 degrees alignment when seeking to understand company carbon performance.

3. ABOUT THE TRANSITION PATHWAY INITIATIVE (TPI) | 3.4 TPI Insights: Comparative Analysis





No disclosure or no suitable disclosuresNot aligned with Paris Pledges

Aligned with Paris PledgesAligned with 2 degrees

■ Below 2 degrees

- **4.1** Preparing for Engagement: Assessing the Company's Quality of Management
- **4.2** Understanding Companies' Climate Change Performance
- **4.3** Bringing TPI and CA100+ Together

4. HARNESSING TPI TO SUPPORT CA100+ ENGAGEMENT

4.1 Preparing for Engagement: Assessing the Company's Quality of Management

For an overview of a company's readiness for the low carbon transition, investors are encouraged to review the company's TPI ranking (see A in Figure 6). If the company is in TPI Levels 0, 1 or 2, it suggests that the company has yet to recognise as a business issue and needs to build capacity to effectively manage the risks and opportunities associated with climate change.

Even if the company has answered Yes to some of the CA100+ Net Zero Company Benchmark questions, it is likely that there are critical gaps in its management systems and processes. Therefore, investors should assess – using the TPI indicators 1-5 (see B in Figure 6) – whether the company has:

- Made a statement recognising climate change as a relevant risk and/or opportunity for the business?
- Established a policy (or equivalent) commitment to action on climate change?
- Set greenhouse gas emission reduction targets? Note: Even if these are qualitative/process targets or only apply to part
 of the business, the setting of such targets is an important step in building wider organisational capacity, systems and
 process.
- Published information on its operational (Scope 1 and 2) greenhouse gas emissions?

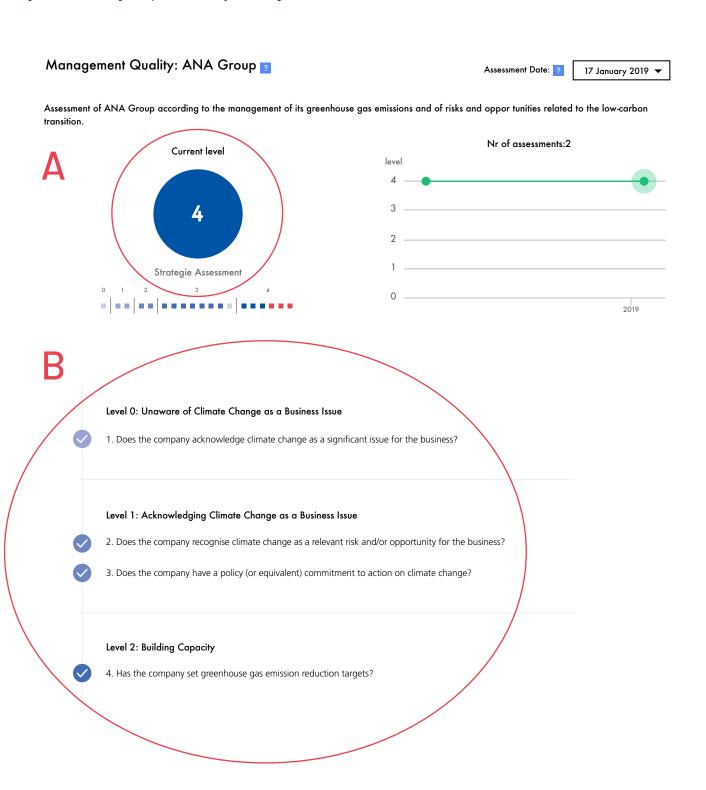
If the company is in TPI Level 3 it has started the process of integrating climate change into its operational decision-making but has not yet raised climate change to being a strategic priority for the company. Using the TPI questions, investors can understand the gaps in companies' system and processes (see B in Figure 6). They can assess whether the company has:

- Nominated a board member or board committee with explicit responsibility for oversight of the climate change policy.
- Set quantitative targets for reducing its greenhouse gas emissions. Note that this question can be assessed as yes even if the targets are short-term or do not cover all of the company's significant emissions.
- Reported on at least some of its Scope 3 emissions.
- Had its operational (Scope 1 and/or 2) greenhouse gas emissions data verified.
- Supported domestic and international efforts to mitigate climate change.
- Disclosed its membership and involvement in trade associations engaged in climate issues.
- Established a process to manage climate-related risks.
- (for companies in sectors where Scope 3 emissions are significant) Disclosed materially important Scope 3 emissions.

Companies only advance from a TPI Level when they meet (or score Yes) on all questions on that Level. For example, for a company to be considered a Level 3 company, it would need to have answered yes to all four questions on Level 2. TPI analysis (see previous section) finds that over half of the Asian companies covered by TPI are in Levels 0, 1 or 2, suggesting that they have not made a statement recognising climate change as a relevant risk and/or opportunity for the business, established a policy (or equivalent) commitment to action on climate change, set greenhouse gas emission reduction targets and/or published information on their operational (Scope 1 and 2) greenhouse gas emissions. While the specific details will differ between companies, many of the elements listed under Level 3 above are necessary – in particular, the allocation of responsibilities, the setting of quantitative targets, the establishment of processes to manage climate–related risks, and (where relevant) the reporting of Scope 3 emissions – if these companies are to respond effectively to CA100+ engagement.

4. HARNESSING TPI TO SUPPORT CA100+ ENGAGEMENT | 4.1 Preparing for Engagement: Assessing the Company's Quality of Management

Figure 5: Assessing Companies' Quality of Management



Investors can use TPI analysis to identify leading companies in a sector, in a country or in a region. They, can also use this analysis to identify companies who have made progress on a specific aspect of the TPI framework (e.g. those who have assigned senior management responsibilities, those who report on their Scope 3 emissions).

4. HARNESSING TPI TO SUPPORT CA100+ ENGAGEMENT | 4.2 Understanding Companies' Climate Change Performance

4.2 Understanding Companies' Climate Change Performance

The CA100+ Net Zero Company Benchmark asks a number of questions about companies' climate change performance. Specifically, it asks whether companies have set long-term, medium-term and short-term greenhouse gas reduction targets, whether these targets cover a majority of their emissions and whether the targets are aligned with the goal of limiting warming to 1.5°C (see Box 4).

Box 4: CA100+ Questions on GHG Reduction Targets

Indicator 2: Long-term (2036-2050) GHG reduction target(s)

Sub-indicator 2.3 – The target (or, in the absence of a target, the company's latest disclosed GHG emissions intensity) is aligned with the goal of limiting global warming to 1.5°C.

Indicator 3: Medium term (2026 to 2035) GHG reduction target(s)

Sub-indicator 3.3 – The target (or, in the absence of a target, the company's latest disclosed GHG emissions intensity) is aligned with the goal of limiting global warming to 1.5°C

Indicator 4: Short-term (2020 to 2025) GHG reduction target(s)

Sub-indicator 4.3 – The target (or, in the absence of a target, the company's latest disclosed GHG emissions intensity) is aligned with the goal of limiting global warming to 1.5°C.

The assessment of whether companies' targets are aligned with the goal of limiting warming to 1.5° C is based on the TPI's analysis. The CA100+ assessments tell whether a company's performance is aligned or not in each of 2025, 2036 and 2050. Investors can use these assessments to identify:

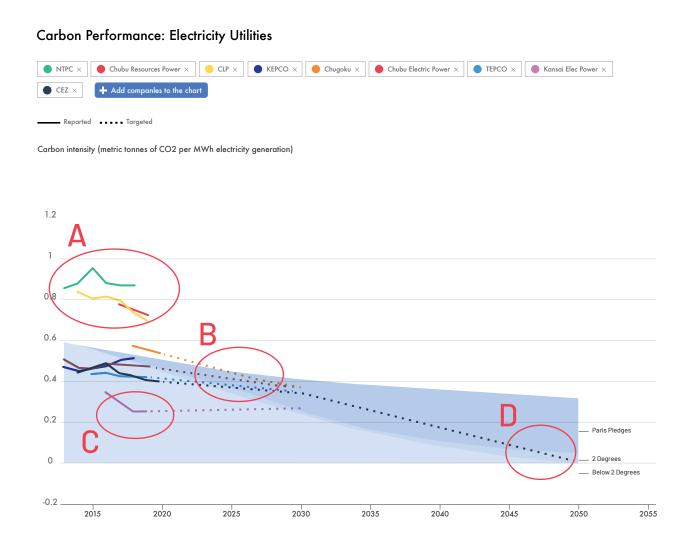
- Whether the company's future emissions performance is aligned with the goal of limiting warming to 1.5°C at each of these points in time?
- Whether the company's trajectory broadly follows the decarbonisation trajectory necessary to align with the goal of limiting warming to 1.5°C.
 - If a company is aligned in each of 2025, 2036 and 2050, it is reasonable to assume that its overall emissions reduction trajectory is aligned.
 - If a company is aligned in 2050 but not at one or both of 2025 or 2036, it suggests that the company is planning on backending its emission reduction efforts (or delaying substantial emissions reductions efforts until closer to 2050), rather than taking more immediate action.

For investors wanting a more complete picture of a company's future emissions trajectory, TPI allows investors to:

- Identify companies who do not have long-term targets (see A in Figure 6).
- Identify companies whose current and expected future performance is in line with the Paris Pledges but not aligned with the goal of limiting warming to 1.5 or 2°C (see B in Figure 6).
- Identify companies who are aligned with the goal of limiting warming to 1.5 or 2°C (see C in Figure 6).
- Identify companies who have set long-term targets (to 2050) and assess how these compare to the Paris Pledges and to the goals of limiting warming to 1.5 or 2°C (see D in Figure 6).

4. HARNESSING TPI TO SUPPORT CA100+ ENGAGEMENT | 4.2 Understanding Companies' Climate Change Performance

Figure 6: Using TPI to Compare the Carbon Performance of Different Companies within a Sector

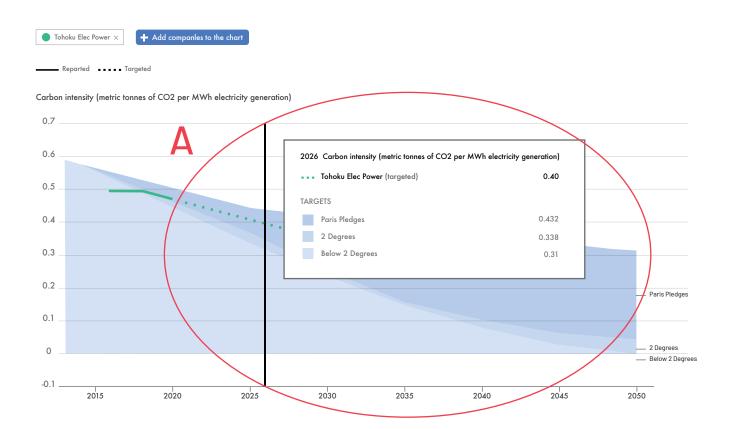


TPI also allows investors to assess how far companies are from a preferred benchmark or performance level at a particular point in time (see A in Figure 7).

4. HARNESSING TPI TO SUPPORT CA100+ ENGAGEMENT | 4.2 Understanding Companies' Climate Change Performance

Figure 7: Using TPI to Assess Company Performance Against a Benchmark

Carbon Performance: Electricity Utilities



4.3 Bringing TPI and CA100+ Together

TPI allows investors to have a detailed and nuanced conversation with companies beyond the specific indicators in the CA100+ Net Zero Company Benchmark. It allows investors to identify companies who need to their climate change management systems and processes, and to provide guidance on how to address these weaknesses. It also allows investors to understand companies' carbon performance, not just in the context of 1.5 degree benchmarks but also in the context of the commitments being made by governments to reduce global greenhouse gas emissions.

In summary, TPI complements the CA100+ Net Zero Company Benchmark by helping investors to formulate a nuanced view of where companies are at their transition journey and to identify the next steps that companies will be able to undertake based on their efforts and current progress.

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Thanks to the Asia Advisory Group for feedback and input

Thank you to the Climate Action 100+ Asia Advisory Group for their feedback and insights for this report, and on an on-going basis support engagements and development of market strategies through the initiative. The Asia Advisory Group was established by AIGCC and PRI in January 2019 to provide strategic insight into the local Asian markets.

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About Chronos Sustainability

Chronos Sustainability was established in 2017 with the objective of delivering transformative, systemic change in the social and environmental performance of key industry sectors through expert analysis of complex systems and effective multi-stakeholder partnerships. Chronos works extensively with global investors and global investor networks to build their understanding of the investment implications of sustainability related issues, developing tools and strategies to enable them to build sustainability into their investment research and engagement. For more information visit www.chronossustainability.com and @ChronosSustain.

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About AIGCC

The Asia Investor Group on Climate Change (AIGCC) is an initiative to create awareness and encourage action among Asia's asset owners and financial institutions about the risks and opportunities associated with climate change and low carbon investing. AIGCC provides capacity and a trusted forum for investors to share best practice and to collaborate on investment activity, credit analysis, risk management, engagement and policy. With a strong international profile and significant network, AIGCC represents the Asian investor perspective in the evolving global discussions on climate change and the transition to a greener economy. AIGCC has 49 members from 11 markets representing over USD11 trillion in assets under management. For more information visit www.aigcc.net and follow @AIGCC_update.

About Principles for Responsible Investment (PRI)



The PRI is an investor initiative in partnership with the UN Finance Initiative and UN Global Compact. The PRI works with its international network of signatories to put the six Principles for Responsible Investment into practice. Its goals are to understand the investment implications of environmental, social and governance (ESG) issues and to support signatories in integrating these issues into investment and ownership decisions. The PRI acts in the long-term interests of its signatories, of the financial markets and economies in which they operate and ultimately of the environment and society as a whole. The six Principles for Responsible Investment are a voluntary and aspirational set of investment principles that offer a menu of possible actions for incorporating ESG issues into investment practice. The Principles were developed by investors, for investors. In implementing them, signatories contribute to developing a more sustainable global financial system. More information: www.unpri.org

About this Project

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 500 investors with \$47 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 March 2021, over 90 investor organisations are engaging with Asian companies as lead or collaborators, of which 33 investors are asset managers or asset owners based in an Asian market.

In October 2020, AIGCC and PRI commissioned Chronos Sustainability to prepare an investor engagement guide to investors that are looking to compare and understand performance of Asian companies in Climate Action 100+, in particular those that are at the early stages of implementing their climate change strategies by referring to the Transition Pathway Initiative to act as a precursor to certain indicators within the Climate Action 100+ Net Zero Company Benchmark.

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 valerie.kwan@aigcc.net

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