TransitionAsia
ACCELERATING EAST ASIAN CORPORATE CLIMATE ACTION

CANON 2030 TARGETS BRIEFING METHODOLOGY

November 2022

This paper provides the background methodology for the Transition Asia Canon Briefing. It features two sections:

- The Canon 2022-2030 emissions forecasting, which generates the 2030 emissions calculations and associated graphs;
- The Action Circle methodology, which assesses the effectiveness of corporate climate ambition and action in the East Asian context. The application in this context is suitable for Technology and Consumer Discretionary companies in East Asia

CANON 2022-2030 EMISSIONS FORECASTING

The last few years have seen a wave of corporate net-zero commitments and emission reduction targets. While these are important indicators of ambition, it is just as important to assess how that ambition is being translated into action and its impact on emissions.

The Canon 2022-2030 emission modelling forecasts emissions to 2030 utilising a combination of ambition and action indicators related to Canon's regional business growth, efficiency measures, energy consumption, and RE growth to 2030.

The analysis is based on two separate models: The operational model (Scope 1 and 2, and includes operational efficiency), which informs the corporate model (Scope 1, 2 and 3, and includes product efficiency)

ANALYSIS PRINCIPLES AND SCOPE

- The analysis focuses on assessing action rather than ambition, so where there is a gap between existing trends and future targets, existing trends are prioritised;
- Where there is no relevant historical data available, linear forecasts are used;
- Possible merger and acquisition impact is assessed for significance but not adjusted for if the recalculation is marginal. Canon's 2018 CDP climate response indicates the 2017 acquisition of Canon medical generated less than a 3% change in Scope 1 and 2 emissions.[1]

KEY VARIABLES AND INFORMATION SOURCES

Revenue growth: Annual revenue growth reflects the growth rate of Canon's business, based on historical data from their securities report.[2]

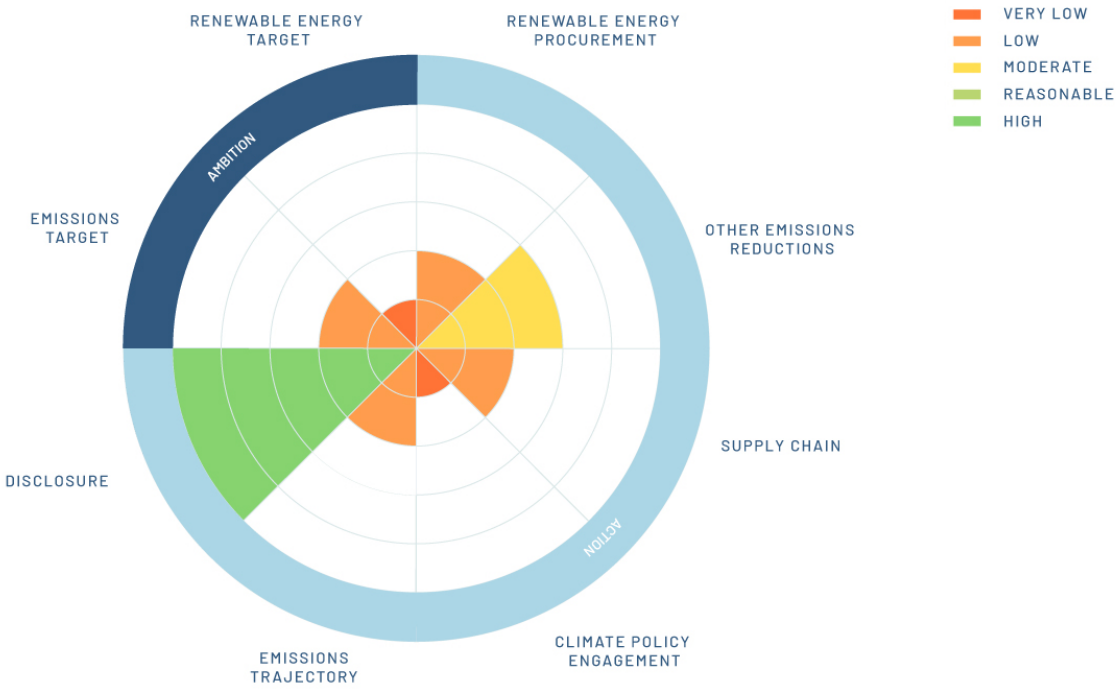
Efficiency rate year-on-year: The efficiency rate refers to the rate of improvement that Canon has achieved or aims to do in order to reduce GHG emissions. It includes operational, upstream and downstream supply chain figures. Data is sourced from Canon's sustainability reporting on targets and progress.[3]

Emissions factors where the energy is consumed: Figures used are based on IEA emissions factors[4] and Canon's energy reporting in CDP responses.[5]

Level of renewable energy growth: Based on historical trends, This includes an assumption that the increasing year-on-year growth in renewables over the last two years are more indicative of future projected growth than, say, the very low year-on-year growth of the last 10 years. Information is sourced from Canon sustainability reporting[6] and CDP responses.[7]

In essence, this creates a model which unpacks forecast future sales and the energy intensity of the business into Scope 1 and 2 emissions and factors in both RE growth and dependence on electricity across different regions. The model is based on future emissions factors of these grids and the rate of transition to RE. We forecast emissions and actual emissions reduction (rather than emission reduction stated in company policy or net-zero ambition). We also focus on the key targets by 2030 rather than the longer term 2050 net-zero objectives. This provides an accurate picture of corporate emissions, RE procurement decisions and electrification strategy.

ACTION CIRCLE METHODOLOGY



EMISSIONS REDUCTION TARGETS

As urgent action is critical, this methodology only focuses on reduction targets by 2030 or those with a short-term timeframe (within 5 years).

Emission reduction scoring is drawn from comparisons with the Intergovernmental Panel on Climate Change recommendations of about 45% emissions reduction from 2010 to 2030.[8]

Where 2030 data is available, corporate targets are compared against the IPCC benchmark. In cases where 2010 data is not available, targets are compared to the UN Emissions Gap benchmark of 55% reduction from 2021 to 2030,[9] A score very low to high is used to assess the ratios of ambitions accordingly.

Only specific reduction targets are assessed; vaguely defined targets like "carbon neutrality" are not considered to equate to 100% reduction, and more specific information concerning emission reduction target is sought. Where that is not received the 'very low' score is applied.

High	46% and above; AND explicitly states the amount of true reduction rather than vaguely-defined statements like "carbon neutrality"
Reasonable	36-45%; Note: 45% is the level of reduction the IPCC considersnecessary to stay within 1.5°C
Moderate	21-35%
Low	1-20%
Very low	No clearly-stated emission reduction targets

RENEWABLE ENERGY TARGETS

This assessment specifically looks at companies in the technology or consumer discretionary sectors. These companies are well placed to ramp up the use of high-ambition renewable energy given:

- The prospective adoption of renewable energy solutions suitable to their business models is already well proven at scale. The business model is not reliant on generating large amounts of their own power for heating, or using coal as a core source of input. They access power from the grid and can utilise PPAs to secure additional renewable electricity;
- They have a considerable scale of operation and market influence that makes them better suited in playing an spearheading role;
- Transitioning to renewables is one of the most significant ways for them to reduce their emissions.

As such, the assessment outlines higher RE targets for these companies than the national electricity targets. RE100 members globally demonstrate this potential as their average timeframe for achieving 100% RE is 2028.[10] The assessment also factors in the East Asian context where it can be relatively harder to secure renewable energy. Despite being context-specific, it does however recognise that many East Asian companies have gained global status with an increasingly international operational network.

The RE target assessment considers the size and timeframe of the targets set, as well as the quality of the renewable energy. Corporations should be driving additional renewable energy through PPAs and captive power rather than relying on low quality unbundled Renewable Energy Credits (RECs) which often don't contribute to additional capacity.[11]

High	100% RE earlier than 2030 AND a commitment to high-quality renewable energy through PPA's, captive and decarbonising the grid rather than credits
Reasonable	100% by 2030 AND a commitment to high-quality renewable energy through PPA's, captive and decarbonising the grid rather than credits
Moderate	50% by 2030 AND a commitment to high-quality renewable energy through PPA's, captive and decarbonising the grid rather than credits OR Greater than 50% by 2030 but over reliance on credits rather than high quality renewable energy
Low	A 100% commitment that is less ambitious than the categories above, including longer term 100% RE commitments that do not have a specified target for 2030
Very low	No 100% RE commitments made

RENEWABLE ENERGY PROCUREMENT

The RE procurement assessment considers the scale and distribution of captive power and PPAs as well as the weighted emissions factor of the company's operations. It is designed for the Japan context where the grid emissions factor is currently 453gCO2/kWh[12] and METI is aiming for 250gCO2/kWh[13] by 2030. It also takes account of operations in other geographies such as Southeast Asia where grid emissions factors are higher.

High	Captive power and PPAs in most geographies especially the regions with the highest emissions factors on grid. Emissions factor of electricity <100gCO2/kWh
Reasonable	Captive power and PPAs in multiple geographies especially the regions with the highest emissions factors on grid. Emissions factor of electricity <300gCO2/kWh
Moderate	Captive power and PPAs in multiple geographies especially the regions with the highest emissions factors on grid. Emissions factor of electricity <500gCO2/kWh
Low	Captive power and PPAs in multiple geographies
Very low	No captive, PPAs or management of emissions from electricity

OTHER EMISSION REDUCTION INITIATIVES

This assessment considers whether there is substantial investment and implementation of the deep decarbonisation measures most relevant to the specific sector of the company or companies being assessed.
Where a 1.5°C sector pathway exists, companies are assessed against the key measures identified in the pathway.

There is no sector specific 1.5°C pathway for the Technology and Consumer Discretionary sectors so it is necessary to assess companies against the most relevant pillars of decarbonisation outlined in the IEA net-zero scenario.[14] Other than moving to renewable energy, key decarbonisation measure relevant to these sectors include:

- Making a clear commitment and associated implementation plans to reduce or eliminate fossil fuels from their operations and, where relevant, a commitment to phase out carbon-intensive infrastructure;
- Electrification to remove fossil fuels, provided it is also associated with a 100% RE commitment and its implementation;
- Increasing efficiency to reduce emissions related to raw materials, direct energy consumption during manufacturing, transport and logistics, and product use and disposal.

High	The company is comprehensively addressing all three of these at large scale
Reasonable	The company is comprehensively addressing at least two of these at large scale
Moderate	The company is comprehensively addressing one of these areas at large scale
Low	The company has adopted few emission reduction measures but these measures cover only a small share of the company's carbon footprint
Very low	The company has adopted few no good practice emission reduction measures

UPSTREAM SUPPLY CHAIN

As Apple's renewable energy supply chain commitment has shown, technology and consumer discretionary companies can have a large impact when they shift their supply chain's emission profiles rather than just that of their own operations.[15]

This section of the assessment focuses on companies' efforts in reducing their upstream emissions by actively moving their upstream supply chain to 100% renewable energy and increasing the number of suppliers that commit to science-based reduction targets and action plans. It considers both the commitments made to engage their supply chain as well as the reported impact of that engagement.

There are few definitive industry standards for best practice supply chain engagement. Some indications of best practices include:[16]

- Ensuring supplier engagement targets are matched with absolute reduction targets so that engagement is focused on driving down emissions;
- Ensuring the engagement is focused on the biggest sources of emissions and therefore the greatest potential shifts to renewable energy;
- Matching engagement with capacity building initiatives to enable faster and more ambitious action by suppliers

High	Commitment to 100% RE supply chain by 2030 and evidence of significant year-on-year supplier commitment progress towards that goal
Reasonable	Supplier engagement commitment on 100% RE commitments and / or science based targets which cover the most significant upstream suppliers in terms of high emissions and RE potential. And clear evidence of engagement translating to suppliers making commitments
Moderate	Supplier engagement commitment focused on 100% RE commitments and / or science based targets but only covers a small percentage of the relevant upstream supply OR limited evidence of engagement translating to suppliers making commitments
Low	Policy on supplier engagement focused solely on disclosure and/or education campaigns. Some active upstream action but no supplier engagement target on 100% RE or climate action plan aligned with science-based targets
Very low	No active upstream supply chain policy or stated action to manage supply chain in relation to climate change

CLIMATE POLICY ENGAGEMENT

Climate policy engagement is one of the most impactful actions that companies can take in Japan, especially as Japan's emissions factors from the grid are higher than other key regions. As outlined in the CA100+ criteria,[17] companies should have:

- A Paris Agreement-aligned climate position and all of its direct advocacy activities should be aligned with it;
- Paris Agreement-aligned lobbying expectations for its trade associations and disclose trade association membership; And to put in place a process for ensuring trade associations in accordance with the Paris Agreement.

The assessment covers the companies, the trade associations it participates in and any think-tanks or institutes that it operates or supports. Where InfluenceMap's company assessments exist those scores are used. For companies that have not been assessed by InfluenceMap, we assess media reports, company websites, statements by the company leadership, and connections to industry associations.We also utilise the InfluenceMap assessments of Japanese trade associations where they are available.

We assess their engagement on:

- The Strategic Energy Plan;[18]
- The Plan for Global Warming Countermeasures and its amendments;
- Implementation focused regulation and policies such as carbon pricing, grid parity and RE enabling measures such as PPA and direct trade of power.

Where the company has significant operations or planned expansion into Southeast Asia, engagement activities in this region is also considered.

High	The company meets the criteria for 'reasonable' below AND has a 1.5°C aligned climate lobbying position for the companies own activities and lobbying expectations for its trade associations
Reasonable	The company carries out active 1.5°C aligned climate policy engagement on key regulation and government policies critical to 1.5°C such as CEO statements, own submissions to government, playing an active role in a 1.5°C aligned trade association or business coalition
Moderate	The company carries out relatively passive climate engagement on key 1.5°C-related regulation such as, joint sign on letters
Low	The company has content in their own website or sustainability report related to action on climate change but carries out no climate engagement, either positive or negative
Very low	The company carries out negative climate engagement that is undermining or diluting key policies essential to Japan delivery on 1.5°C alignment, such as the energy transition to renewables

EMISSION PATHWAY

The emission pathway is calculated using the results of our 2022-2030 modelling outlined at the top of this document. The model separately assesses the operational (S1 & 2) pathways and the corporate (S1, 2, 3) pathways against an IPCC 1.5°C target of 45% reduction by 2030 from 2010.

The scoring is based primarily on total emission reduction across Scope 1, 2 and 3. However, consistent with the SBTi combined target approach, when a target combines S1, 2, 3 the scope 1 and 2 portion must be in line with at least a 1.5°C scenario.[19] Therefore the Moderate, Reasonable and High scores also require Scope 1 and 2 reductions of at least 45%.

High	46% and above reduction in total scope 1, 2 & 3 emissions AND greater than 45% for Scope 1 & 2
Reasonable	36-45% reduction in total scope 1, 2 & 3 emissions AND greater than 45% for Scope 1 & 2
Moderate	21-35% reduction in total scope 1, 2 & 3 emissions AND greater than 45% for Scope 1 & 2
Low	1-25% reduction in total Scope 1, 2 & 3 emissions OR More than 25% reduction in total scope 1, 2 & 3 emissions but less than 45% reduction for Scope 1 & 2
Very low	No reduction in overall emissions OR an increase in overall emissions

TRANSPARENT DISCLOSURES

The disclosure section is assessed based on the disclosure needs of key sustainability frameworks, investor initiatives and reporting standards.[20] [21] [22] [23] The majority of disclosure good practice falls into three key areas. A points system has been used to assess the overall quality of disclosure combining all three areas and a score (%) is allocated based on the number of points / the total possible number of points.

Emission-related disclosure
Disclosure of emissions from all emissions scopes (1, 2, and 3).
Emissions reporting is consistent across all public documents.
The company describes its approach to reporting emissions.
The company explains reasons for any significant change in gross global emissions.
The company explains why any omitted emissions categories are not tracked.
Annual breakdown of disclosed Scope 1 and 2 emissions with breakdowns by country, business activity, business division, and GHG type.
Energy-related disclosure
Annual disclosure of energy consumption and at least a breakdown by energy type (electricity, gas, steam, etc.) and by geography.
RE breakdown (i.e amount certificates, PPA, captive)
1. Total RE consumption and breakdown by energy type (RE with 0 EF like solar, or other RE like biomass?)
2. The breakdown of RE achievement type (captive, certificates and PPA)
3. The geography breakdown for the above 2 points
Supply chain
Annual disclosure of allocated emissions of upstream and downstream entities along the supply chain
Annual disclosure listing all upstream and downstream entities along the supply chain

High	81-100% of the disclosure indicators are met
Reasonable	61-80% of the disclosure indicators are met
Moderate	41-60% of the disclosure indicators are met
Low	20-40% of the disclosure indicators are met
Very low	Emissions are not tracked and disclosed, or only to a limited extent

GLOSSARY

- CDP Formerly the Carbon Disclosure Project
- GHG Greenhouse gases
- IPCC Intergovernmental Panel on Climate Change
- PPA Power Purchase Agreement
- RE Renewable energy
- RE100 A climate initiative aiming at 100% renewable energy use in business
- SBTi Science-Based Targets initiative
- UNEP United Nations Environment Programme

ENDNOTES

1 Canon's submission to the CDP's Climate Change Questionnaire (2018) available at: https://www.cdp.net/ja/formatted_responses/responses?campaign_id=62255737&discloser_id=787228&locale=ja&organization_name=Canon+Inc.&organization_number=2688&program=Investor&project_year=2018&redirect=https%3A%2F%2Fcdp.credit360.com%2Fsurveys%2Fft9rgfbw%2F15021&survey_id=58150509

2 Canon's security reports (all in Japanese)
https://global.canon/ja/ir/yuuhou/canon2021.pdf (2021)
https://global.canon/ja/ir/yuuhou/canon2017-correct.pdf (2017)
https://global.canon/ja/ir/yuuhou/canon2014.pdf (2014)

3 Canon's sustainability reports
https://global.canon/en/csr/report/pdf/canon-sus-2022-e.pdf (2022)
https://global.canon/en/csr/report/pdf/canon-sus-2021-e.pdf (2021)
https://global.canon/en/csr/report/pdf/canon-sus-2020-e.pdf (2020)
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https://global.canon/en/csr/report/pdf/sustainability2013e.pdf (2013)
https://global.canon/en/csr/report/pdf/sustainability2012e.pdf (2012)
https://global.canon/en/csr/report/pdf/sustainability2011e.pdf (2011)

4 https://www.iea.org/data-and-statistics/data-product/emissions-factors-2021

5 Canon's submission to the CDP's Climate Change Questionnaire (2021) available at: https://www.cdp.net/en/formatted_responses/responses?campaign_id=74241094&discloser_id=899903&locale=en&organization_name=Canon+Inc.&organization_number=2688&program=Investor&project_year=2021&redirect=https%3A%2F%2Fcdp.credit360.com%2Fsurveys%2F2021%2Fdbbr64mv%2F143180&survey_id=73557641
Canon's submission to the CDP's Climate Change Questionnaire (2022) available at: https://www.cdp.net/en/formatted_responses/responses?campaign_id=79520704&discloser_id=946169&locale=en&organization_name=Canon+Inc.&organization_number=2688&program=Investor&project_year=2022&redirect=https%3A%2F%2Fcdp.credit360.com%2Fsurveys%2F2022%2F6wz4wms4%2F209762&survey_id=78646008

6 Same as [3].

7 Same as [5].

8 IPCC Summary for Policymakers https://www.ipcc.ch/2018/10/08/summary-for-policymakers-of-ipcc-special-report-on-global-warming-of-1-5c-approved-by-governments/#:~:text=Global%20net%20human%2Dcaused%20emissions,removing%20CO2%20from%20the%20air.

9 https://www.unep.org/resources/emissions-gap-report-2021

10 https://www.there100.org/technical-guidance

11 Renewable energy certificates threaten the integrity of corporate science-based targets' https://www.nature.com/articles/s41558-022-01379-5

12 https://www.env.go.jp/content/000049975.pdf

13 https://www.meti.go.jp/shingikai/enecho/denryoku_gas/denryoku_gas/pdf/052_05_01.pdf

14 https://www.iea.org/reports/net-zero-by-2050

15 https://www.apple.com/supplier-responsibility/pdf/Apple_SR_2021_Progress_Report.pdf

16 https://www.anthesisgroup.com/supplier-engagement-for-sustainable-supply-chains/

17 https://www.climateaction100.org/net-zero-company-benchmark/methodology/

18 Japan's 6th Strategic Energy Plan (2021) available at: https://www.meti.go.jp/english/press/2021/1022_002.html

19 https://sciencebasedtargets.org/resources/files/SBTi-criteria.pdf

20 https://sciencebasedtargets.org/resources/files/SBTi-criteria.pdf

21 https://guidance.cdp.net/en/guidance?cid=18&ctype=theme&idtype=ThemeID&incchild=1&microsite=0&otype=ScoringMethodology&tags=TAG-605%2CTAG-646

22 https://www2.lseg.com/sustainablefinance/ESGdisclosure-assessment#:~:text=The%20ESG%20Disclosure%20Score%20is,most%20relevant%20for%20your%20industry

23 https://www.fsb-tcfd.org/

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ABOUT TRANSITION ASIA

Founded in 2021, Transition Asia is a Hong Kong-based non-profit think tank that focuses on driving 1.5°C-aligned corporate climate action in East Asia through in-depth sectoral and policy analysis, investor insights, and strategic engagement. Transition Asia works with corporate, finance, and policy stakeholders across the globe to achieve transformative change for a net-zero, resilient future. Visit transitionasia.org or follow us @transitionasia to learn more.