

Non-Commercial Climate Data Providers – An Overview

This document was written by the Data and Targets Working Group within the Monitoring Reporting and Verification Track (MRV) of the UN-convened Net-Zero Asset Owner Alliance. The group is co-chaired by Dr Udo Riese (Allianz IM) and Dr Stephen Barrie (Church of England Pensions Board), and is supported by Carolin Gresch (UNEP FI).

1. Introduction

The aim of this document is to provide asset owners with an overview of currently available non-commercial data providers. Such an overview is intended to help users understand which data sets are available to them and how they might be used in investor decision-making. Beyond asset owners, other stakeholders might also find this overview helpful as it sheds lights on which details to look for to assess a company's progress towards 1.5°C pathways.

This document focuses primarily on the utilities sector as this is one of the highest emitting sectors¹ and should be treated with priority. However, the coverage of other sectors is also referenced when possible.

We have identified nine non-commercial data providers that publish climate data for the utilities sector. The data they publish differs in source, scope, and technical detail. To help navigate this diversity of offering, this document provides insight into the various degrees the data sets can be used to draw conclusions about a company's alignment to the net-zero transition.

To ensure information provided here is reliable, the Working Group took the following three-step approach:

- 1) The group collectively built a library of all known, relevant, available data and KPIs that could be useful for asset owners' climate data needs.
- 2) Members of the Working Group researched in depth these collected KPIs for each non-commercial data provider.
- 3) All information was sent to the data providers for verification. The resulting overview, listed in Annex 2 has therefore been vetted both by Working Group members and the data providers themselves. Explanations of the various indicators listed in Annex 2 can be found in Annex 1.

1. [International Energy Agency \(2021\): Global Energy Review 2021.](#)

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2. Advantages of non-commercial providers/data sets

Currently, it is common to see commercial or proprietary climate data underpinning the analyses of or for investment vehicles/products. This data is often a point of differentiation between providers, and this competition is a welcome driver of rigour and quality. Still, the emergence of credible non-commercial climate data provision deserves special attention because public access for all stakeholders is useful so long as the offering meets various minimum requirements (see section 3. Decision usefulness below). Transparent, and accessible climate data can provide important accountability infrastructure to the market, and society more generally.

Retrieving questionnaire-based non-commercial data through bilateral company engagement can be a challenge for company and investor resources alike. The inefficiency is further exacerbated if the use of the resulting data collection and analysis is limited or employs contradicting standards. However, if the analysis were to be widely used by investors, the details of the methodology can become a common engagement standard, setting performance milestones that can inform investor stewardship activities, such as proxy voting and escalation strategies. One benefit of having a public facing standard as described, is that the company clearly sees what is needed to improve their climate performance assessment, and investors can track improvement over time. In this scenario, investors benefit from adopting a recognised methodology, the non-commercial data providers benefit from having their work inform investors' climate action, and the company benefits from having a clear pathway to pursue to meet the expectations of a broad range of stakeholders (from investors to civil society).

3. Decision usefulness

In relation to investor decision making, **a data set must be useful in how it connects to a climate strategy and practical in its underlying information quality and coverage.** To hone in on the point on strategy-related usefulness, we questioned the providers on the following:

1. whether their data can be incorporated or adopted as part of a defined decarbonisation/net-zero strategy (meaning, whether it can be used to assess transition alignment)
2. the extent to which decarbonisation pathway is sector specific and sufficiently short term
3. the extent to which a broad set of criteria is assessed (meaning, whether transition-relevant data, beyond carbon emissions, are included).

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To hone in on the point on practicality in underlying information, we questioned the providers on the following:

1. whether the data are provided alongside some widely used company identifier (approximately half are able to provide ISINs),
2. whether the offering is updated regularly (most common frequency is annual),
3. whether the data are subject to quality assurance (the majority use internal QA), and
4. whether the dataset is exportable.

Further details on the questions we developed, including the rationale for their inclusion, is provided in Annex 1.

4. Reflections

Despite limitations, it is clear that non-commercial data can support investors with integrating their net-zero targets into decision making. Investors are indeed already incorporating non-commercial data into their proxy voting, engagement, and asset allocation strategies.

4.1 Challenges of data scope

There are challenges for non-commercial data providers to provide sufficient coverage/scope and we expect that this will continue to drive the adoption of commercial data sets. Few non-commercial data providers are able to generate high quality, timely analysis on more than a few hundred companies. For this reason, most non-commercial data providers focus on larger companies (by market capitalisation) or on particular countries or regions (for example, the United State of America and Europe).

Since larger companies account for a significant proportion of emissions, the focus on larger companies is not unreasonable. The Climate Action 100+ list of companies, for example, accounts for over 70 percent of public market emissions². We might expect large companies to be ‘first movers’ and when investors are allocating scarce stewardship resources, a focus on those corporations would be an obvious way to maximise real-economy impact.

[2. CA100+ Progress Report 2020 p. 11.](#)

However, limitations in scope mean that these non-commercial data providers do not give a full picture of the global economy. Therefore, further information is required for those invested in index products that are designed to follow the wider market or for those interested in tracking the progress of the real economy.

4.2 Historic or forward-looking data

The analysis provided by non-commercial data providers tends to focus on a snapshot of current or historic carbon emissions—this is only a proxy for climate alignment, and therefore also a proxy for companies' approach to climate risk and opportunities. Only a few non-commercial data providers consider forward looking data (such as commitments or decarbonisation targets) alongside broader information such as capital expenditure, climate governance or just transition considerations.

4.3 What guides adoption of non-commercial data by asset owners?

There is wide variety of ways in the which asset owners use climate data. Some are 'data hungry' and have the capacity to incorporate large and diverse datasets. Others might look for summary metrics or assessments, or make use of specific indicators for their respective purposes. In general, an asset owner that regularly conducts direct company engagement will have more use of detailed information, while investors looking to identify leaders and laggards may be satisfied with a higher-level assessment of alignment. These different appetites will be reflected in asset owners' adoption of non-commercial data, which means that there is no 'one size fits all' approach when it comes to non-commercial data adoption.

Annex 1: Detailed explanations for questions

Category	Question	Explanation
Source information	Result open to the public (open source)?	The information is available without charge or restrictive sign-up process.
	Methodology open to the public?	The assessment methodology is fully transparent and accessible.
	Analysis based on public disclosure?	The analysis draws entirely on statements companies have made that are in the public domain.
	Restriction on use of data?	Are there any formal restrictions on the use of data/analysis.
	Collaboration Partners / Underlying organizations (if applicable)?	List of the main organising partner organisations (e.g. not including all supporters)
Coverage of	Which companies (how many covered, what total market cap, link to data)?	How many utility companies, what total market cap covered, link to list of companies if available?
	Other sectors?	Which other sectors are covered?
	Which criteria?	How is coverage determined? E.g. by market cap, self selection
	Capex?	Is current and future Capex included in the available data or analysis?
	M&A?	Is current and future M&A activity covered in the available data/analysis?
Information about available data	Emission Data (units for Utilities)?	Does the analysis provide emissions data, if yes what is the unit? (e.g. metric tonnes of CO2 per MWh electricity generation)
	Capacity per technology and production per technology (MWh capacity / production for renewables, Coal, Gas, Nuclear)?	Does the analysis provide capacity and production figures for each business line (e.g. coal, gas, renewables, nuclear)
	At least one Target or Commitment before 2030?	Does the analysis have the capacity to reflect, if available, at least one target or commitment before 2030? Can the analysis pick up interim targets?
	Are targets/commitments normalised and comparable?	Is it possible to make a direct comparison between targets and/or commitments of two companies in the sector, as a result of this analysis?
	Which scenarios available 1.5; well below 2D, 2D (what source, e.g. IEA, IPCC, OECM)?	Important to identify the source of the scenarios as well as the label (e.g. "1.5D")
	Management quality / governance assessment?	Does the analysis consider/assess governance or management quality? This might be generic "ESG" or ideally climate specific governance factors
	Overall assessment of alignment?	Is there a high level result of the analysis that shows alignment by degree or by category? I.e. either showing a specific degree of transition alignment relative to scenarios, or categorises companies as "aligned to" particular scenarios.
	Quality assurance / quality control?	Can the organisation demonstrate a process of quality assurance and quality control that applies to their analysis?
	Update policy / regular updates / event driven?	How often are the data updated, and what prompts the update (i.e. is it regular, event or policy driven)?
	Historical data / analysis available?	Is historical analysis of the same type and quality available? Back to what date?
	Company verification / consensus assessment?	Is there a stage of verification involving the assessed company? i.e. is this a consensus analysis.
	Bulk data publically available?	Are the data available in e.g. Excel in one download?
	Company Identifiers? (ISIN etc)	If yes, please specify which identifiers are available?

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Annex 2: Non-commercial data provider overview

	Data Provider	2dii / PACTA	ACT / ADEME	Carbon Tracker	CDP	RMI	SBTi	TPI	WBA	WRI
	Link	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Source Information	Result open to the public (open source)?	Yes, the software is opensource, but results are confidential to each user. Currently, only company-level alignment results are shared with "PACTA for Banks" users, and with "PACT for Investors" users only the results for the biggest companies in the portfolio are showed	Yes, ACT assessments made by companies may be published by the company (e.g. Decathlon). Climate and Energy Benchmarks made by WBA using ACT are publicly available	Yes, reports and resources are free, but require registration by email.	Yes when companies respond publicly, Yes for CDP scores. Only CDP Temperature Ratings and GHG estimations are not public.	Yes	Yes	Yes	Yes, partially - the following are public: ACT assement scores, rankings, scores per module and indicator, scorecards and key findings all publicly available (and free)	Yes, with source attribution
	Methodology open to the public?	Yes	Yes	Yes, all reports are accompanied by methodology documents.	Yes	Yes	Yes, criteria and validation protocol, and all methods are fully open	Yes	Yes	Yes
	Analysis based on public disclosure?	Partially	Public data and information directly provided by companies. Public sustainability and financial disclosures	Yes	Yes	Yes	It can be, but this is not a rule. Companies also submit private information to the SBTi for validation purposes that is not disclosed publicly	Yes	Public data and information directly provided by companies	Yes
	Restriction on use of data?	No	Yes, for non-commercial use only	All data provided by CTI is free of use and no restrictions of use, though we currently do not deliver raw data publicly.	Yes, external usage or creation of fee-based products based on the CDP data are not allowed without a license agreement	No	No. Only some private submitted for validation purposes cannot be disclosed by the SBTi	No, regarding the non-commercial use	No	No
	Collaboration partners / underlying organizations (if applicable)?	Academic organizations (including the Frankfurt School of Finance and the University of Zurich), funding from the European Commission, German and Swiss governments, and support from UN PRI)	Founder: ADEME (French Agency for Ecological Transition) and CDP, Partner: World Benchmarking Alliance (WBA)	GEM, PPCA, CA100+.	International organisations (e.g. UN global compact; national government agencies like ADEME), National Governments (e.g. Portugal), NGOs (e.g. WWF) companies (e.g. enel foundation), capital markets (e.g. Eurosil), cities, stated and regions (all list available (12))	Catalyst Cooperative	CDP, UNGC, WRI, WWF	Church of England Pensions Board, chair of TPI supported by 125 asset owners, managers and service providers	Research Partner CDP and Partner ADEME (ACT Initiative) for Climate and Energy Benchmark. WBA as a whole has 300+ Allies with which are committed to WBA's mission, vision and values and play a significant role in driving transformation to achieve the SDGs and the Paris Agreement: (13)	Several, available on request

(3) [2dii / PACTA – Climate Scenario Analysis Program](#)

(4) [ACT / ADEME – Act Assessment Results Electric Utilities](#)

(5) [Carbon Tracker –Utilities](#)

(6) [CDP – Data Set of all companies](#)

(7) [RMI – Utility Transition Hub](#)

(8) [SBTi – Companies taking Action](#)

(9) [TPI – Electric Utilities](#)

(10) [WBA – Data Set of all companies](#)

(11) [WRI – Technical Note](#)

(12) [CDP - Collaborators](#)

(13) [WBA – Meet our Allies](#)

	Data Provider	2dii / PACTA	ACT / ADEME	Carbon Tracker	CDP	RMI	SBTi	TPI	WBA	WRI
Information about available data	Emission Data (units for Utilities)?	Yes	Emission Intensity (relevant for the sector) can be found in the methodology as a scoring criteria, but the intensity is not displayed systematically online	Yes, upon request for coal and gas units. Carbon emissions (tonnes CO2)	Yes	Yes, Metric Tons and Metric Tons / MWh	Individual emissions data of companies is not disclosed by the SBTi. Companies may disclose it on other public platforms e.g. CDP disclosure	Yes (metric tonnes of CO2 per MWh electricity generation)	Relevant emissions intensity (gCO2/kWh) can be found in the methodology as a scoring criteria and is displayed in some company scorecards where relevant. The intensity is not displayed systematically	not at this time, included in future plan (partner with Carbon Tracker)
	Capacity per technology and production per technology?	Yes (Methodology is agnostic to any climate scenario that lays out targets in production capacity at the technology level or, for the relevant sectors, emission-intensity units)	No, but this is measured to calculate performance	Upon request, generation data for coal and gas units in MWh.	Yes	Yes	No	No	Measured to calculate performance In addition, overall installed capacity available per company in Electric Utilities Benchmark Renewables capacity compared to total capacity available in eg. chart in key findings (21)	Yes
	At least one Target or Commitment before 2030?	Yes, PACTA measures alignment 5 year forward looking	Yes, interim targets are an assessment criteria	Yes, our analysis uses different climate scenarios such as B2DS, STEPS, Net Zero (when applicable), etc. However for company profiles we currently compare against B2DS.	Yes	Yes, when reported by the companies	Yes, although targets can now be set up to 15 years from the reporting year. Hence, target timeframe is currently valid until 2035	Yes	Yes, interim targets are an assessment criteria	N/A
	Are targets / commitments normalised and comparable?	Yes, at the company-level results	Yes, this is the objective	Yes, it is possible to compare between the companies and also classify them according to our analysis which comprises their commitments, both public and empirically.	Yes in CDP Temperature Ratings dataset (22)	Yes	Yes (though it's a binary comparison)	Yes	Yes, this is the objective	N/A
	Which scenarios available 1.5, well below 2D, 2D?	Multiple scenarios available: current policies scenario, stated policies scenario, sustainable development scenario, reference scenario, 1.5°C & 2°C scenario	1,5°C - ACT uses the best latest available scenarios for a sector but the methodology itself is scenario agnostic	Currently, the Beyond 2 Degrees Scenario from IEA.	For corporate responses: All scenarios indicated by the company responding. For CDP Temperature Ratings: IPCC Scenarios (soon SDA)	1,5°C	well below 2°C	Sector-specific	1,5°C	N/A
	Management quality / governance assessment?	No	Yes	This will be enhanced and included in new versions, also including alignment of management remuneration incentives.	Yes	No	No	Yes	Yes	No

- (14) [CDP – Search of companies](#)
- (15) [WBA – Search of companies](#)
- (16) [WBA – List of other sectors](#)
- (17) [CDP - FAQ](#)
- (18) [CDP – Supply Chain Membership](#)
- (19) [WBA – SDG2000 Methodology](#)
- (20) [CDP – Climate Change Questionnaire Review and Reporting Guidance 2022](#)
- (21) [WBA – Key Findings Electric Utilities](#)
- (22) [CDP – Temperature Ratings](#)

	Data Provider	2dii / PACTA	ACT / ADEME	Carbon Tracker	CDP	RMI	SBTi	TPI	WBA	WRI
Information about available data	Overall assessment of alignment?	Yes	Yes, methodology describes a measure of the alignment of the company's emissions reduction target with its decarbonization pathway	Yes, analysis of alignment with climate scenarios (agnostic) to show economic determined phaseout of coal or gas plants and assess whether announced phaseout year is aligned with the scenario suggested year (% of capacity aligned and unaligned with climate scenario).	Yes (CDP Temperature Rating)	Yes, but only for public commitments	Yes, based on quantitative target ambition	Yes	Yes, methodology describes a measure of the alignment of the company's emissions reduction target with its decarbonization pathway	No
	Quality assurance / quality control?	No	ACT Initiative recommend a third party critical review when a company choses to communicate about its ACT assessment result. The ACT methodologies are developed with a internal QA/QC process and external MHQA	We have processes in place but are undergoing a set of improvements that will alter this significantly.	Yes (cf public methodologies): - Corporate responding to CDP can provide 3rd party certification of the GHG Emissions - CDP Temperature Rating and GHG Emission Dataset indicate the level of reliability of the data provided	Yes	Yes	Yes	Yes - WBA and Research Partner (CDP) have established processes of quality control	
	Update policy/regular updates/event driven?	Every quarter	ACT Initiative recommends that updates should be done when strategic changes happen in the company life. Otherwise we think that new assessment should be done every 2-3 years.	Change in ownership, retirement dates, new disclosure updates etc. are currently done annually.	Annually for corporates disclosure raw data, scores and GHG estimates. Monthly for CDP Temperature ratings.	Annual operations, emissions, and financial data updated when US government agencies publish new data. Quarterly updates to emissions targets and subsidiary-parent relationships.	Criteria/methods updated annually to align with latest climate science and best practise	Regular schedule	Target for all 450 companies in scope benchmarked at least once every 2 years. Target to benchmark most relevant companies for AGM season; other benchmarks released for UNFCCC COPs.	Latest available (WRI states current limitations due to variations in dates for latest reported)
	Historical data/analysis available?	No, not yet	Reporting year minus 5	Yes, back to 2019. But historical data is updated yearly and not reflected as individual past years, but as up-to-date information.	Yes	Yes, from 2005	Only currently valid public target is available (which stretches back to 2015)	Yes, some from 2017	For ACT assessments in WBA benchmarks the most recent 5 year historic period for which data is available is used.	Yes
	Company verification / consensus assessment?	Data used in the tool are sourced by other databases who most likely have already verified the data	Yes	No, we based assessment on ownership of plants from audited financial statements. Methodology outlined in multiple Carbon tracker reports. Happy to discuss results with companies. It is not a consensus analysis.	Yes, via self submitted third party verification	No	Yes (reviewed by the SBTi validation team)	Yes	Yes, companies are given the opportunity to validate data inputs but all data must be verifiable i.e. based on public information	no
	Bulk data publicly available?	No	No	Upon request, excel data (or table data)	Yes, for CDP Investor Signatories or for Data License holders	Yes	Yes	Yes	Yes, all scores and analysis by ACT module, and all scores by ACT indicator, publicly available for download from WBA website	Yes
	Company Identifiers?	No	No	Yes, name and Bloomberg ticker identifier - we can find ISIN codes	Yes (ISIN, primary ticker and CDP account number)	Yes (EIA, FERC, stock symbol, ISIN, LEI)	Yes, 765 with ISIN (out of 1602)	Yes (ISIN, SEDOL)	Yes, ISINs available in public data sheets (144/180 ISINs available)	N/A