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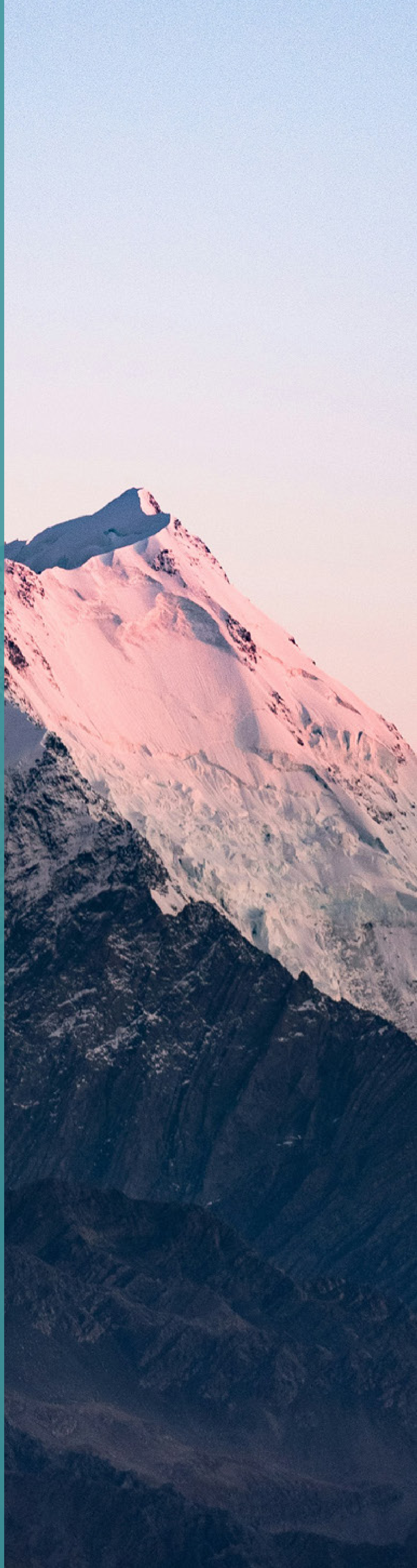
PRI Principles for Responsible Investment

UN-convened Net-Zero
Asset Owner Alliance

Target-Setting Protocol

Fourth edition

April 2024



The Net-Zero Asset Owner Alliance (the Alliance) receives ongoing legal advice with regard to antitrust compliance—as such, this publication has undergone a legal review.

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This Protocol builds on the previous edition of the protocol which can be found here.

Monitoring, Reporting and Verification (MRV) Track

The Monitoring, Reporting and Verification (MRV) Track is responsible for the development of the protocol, which provides the basis for Alliance members to develop, issue and report decarbonisation targets. Members of the MRV track have reviewed large amounts of known, available scientific guidance, commissioned scientific guidance, and available methodologies. This protocol is the result of this process and is published on behalf of the Alliance. It sets out the Alliance's approach to target setting and reporting on progress towards real world emissions reductions in line with established science and members' fiduciary duty.

A range of scientific, academic, and technical experts are engaged in and contribute to the Alliance's work. This Protocol was produced by the technical leads within the Alliance membership with input from global networks, climate scientists, strategic advisors, NGOs, and the public.

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Introduction to the Alliance's Target-Setting Protocol

T1. The Net-Zero Asset Owner Alliance (the Alliance) is pleased to introduce a practical update to its Target-Setting Protocol (TSP), which has transitioned into a standing document for enhanced efficiency and accessibility. Unlike the previous publication model which was to publish a revised version annually, this standing document will undergo regular updates on an annual basis or less frequently, thus ensuring that the latest information is reflected.

T2. All relevant information from prior versions (Inaugural Target-Setting Protocol, Target-Setting Protocol Second edition, Target-Setting Protocol Third edition) is now incorporated into two distinct documents. A notable improvement is the introduction of detailed numbering for paragraphs to enhance clarity and reference. Changes to paragraph content will be systematically tracked in tables provided in the final section of the document. Paragraph numbers are cited to indicate exact linkages between the two documents.

The revised structure includes two key documents:

1. Target-Setting Protocol: This document consolidates all pertinent information for Alliance members regarding target setting and reporting requirements (all paragraphs are numbered for reference with T; e.g. T31).
2. Background Document: This document serves as a supplementary resource, providing additional insights on content related to target setting, allowing for detailed explanations and discussions not directly reflected in target setting requirements (all paragraphs are numbered for reference with B; e.g. B23).

T3. The Target-Setting Protocol uses the following terminology:

- ***Shall*** means that a process is binding for the purpose of the Alliance but remains subject to the unilateral decision of the concerned member. If the concerned member does not follow the guidance, an explanation to the Alliance is required;
- ***Should*** means that a process is strongly recommended.

1. The Alliance's Commitment

1.1 Commitment of the Alliance

T4. The members of the Alliance have made the following commitment:

"The members of the Alliance commit to transitioning their investment portfolios to net zero GHG emissions by 2050 consistent with a maximum temperature rise of 1.5°C above pre-industrial temperatures, taking into account the best available scientific knowledge including the findings of the IPCC, and regularly reporting on progress, including establishing intermediate targets every five years in line with Paris Agreement Article 4.9.

In order to enable members to meet their fiduciary duty to manage risks and achieve target returns, this Commitment must be embedded in a holistic ESG approach, incorporating but not limited to, climate change, and must emphasise GHG emissions reduction outcomes in the real economy.

Members will seek to reach this Commitment, especially through advocating for, and engaging on, corporate and industry action, as well as public policies, for a low-carbon transition of economic sectors in line with science and under consideration of associated social impacts.

This Commitment is made in the expectation that governments will follow through on their own commitments to ensure the objectives of the Paris Agreement are met."

T5. In line with the above commitment, the Alliance and its members are committed to supporting the real economy in its transition to a net-zero world, while, at the same time, being guided by science. It is important to note that the real economy is not moving as fast as the science recommends and this departure creates a substantial challenge for Alliance members who are committed to holding a net-zero portfolio as well as investing in a net-zero world. Thus, defining net-zero portfolio pathways will reflect both the requirements of science and the needs of the real economy, while also considering implications for a just transition (see Background Document, B39–B47). To this end, the Alliance has heavily consulted several academic institutions on the scenarios and conclusions of the Intergovernmental Panel on Climate Change (IPCC)'s Special Report on Global Warming of 1.5°C and IPCC Sixth Assessment Report (AR6) to inform the recommended emission reduction ranges for 2025 and 2030.

T6. To join the Alliance, the Commitment document (NZAOA 2022b) is signed by a C-Suite representative of each Alliance organisation at the time of joining the Alliance. The Alliance's Governance document (NZAOA 2023b) contains the requirements of the commitment document and lays out six minimum requirements that Alliance members ***shall*** implement. By joining the Alliance, member organisations commit to:

1. Setting intermediate individual targets, in line with the Alliance's Target-Setting Protocol, within 12 months of joining
2. Publishing (publicly disclosing) intermediate individual targets
3. Disclosing annually and publicly on progress towards intermediate individual targets, including on investment portfolios' emissions profile and emissions reductions
4. Reporting intermediate individual targets and annually reporting on progress towards intermediate individual targets, via the internal Alliance reporting template for aggregation and publication in the Alliance progress report
5. Paying membership fees within 30 days of invoicing
6. Considering to adopt and publish (when applicable) individual investment policies or approaches to align with Alliance's positions within 12 months of joining the Alliance or within 12 months of the publication of a new position.

T7. The Target-Setting Protocol outlines the requirements related to the first four requirements ('1' to '4') outlined above, with '5' being treated separately. Further requirements for members related to positions mentioned in '6' are described in the positions themselves and are included separately in the Alliance's reporting.

T8. The Alliance's Governance document (NZAOA 2023b) also covers the Accountability Mechanism, which describes the process for occasions when a member has not met the minimum requirements listed above within a specified time frame. The Alliance recognises that members may have unique business models or differing operating jurisdictions. To accommodate for variability, the Alliance applies an overall approach to provide an explanation in case of deviations from those requirements. To meet the first four minimum requirements, Alliance members ***shall*** set targets based on the criteria outlined in this Target-Setting Protocol and ***shall*** explain any necessary deviations.

T9. Throughout the protocol, the terms "intermediate targets" and simply "targets" are used interchangeably, depending on context, to mean that members are required to set targets every five years.

1.2 Objective of the protocol

T10. The publication of the protocol aims to address two objectives:

1. Maximise the impact of clear communication with external audiences. The Alliance aims to be reliably transparent and proactive in explaining its role, views, and how it addresses key issues and limitations of portfolio decarbonisation beyond its control. Our open approach to communication also means that we seek to learn from, and build on, external feedback received through public dialogue.

2. Provide the necessary guidance on Alliance requirements, which will guide and support Alliance members in implementing Alliance-wide approaches. This document puts forward the target setting requirements. It is designed to be accompanied by the Background Document, which explains in detail the thinking behind the target setting approach.

1.3 Link to scientific basis

T11. In the first two versions of the protocol (inaugural and second edition), the Alliance assessed IPCC SR1.5 pathways with no or limited overshoot to inform individual members in their target setting approach for portfolio emissions reductions. To limit global reliance on atmospheric carbon removal, **it found absolute emissions reductions for the period 2020 to 2025 should range between 22 per cent to 32 per cent.**

T12. As of the third version of the protocol (NZAOA 2023a), the Alliance assessed the IPCC Sixth Assessment Report (AR6) to obtain an updated range for 2020 to 2030.[1] As the Alliance's Commitment requires pursuit of net zero greenhouse gases (GHGs) by 2050, in line with a maximum temperature rise of 1.5°C, the Alliance has since its inception used CO_2 pathways with a 75/25 interquartile range as a proxy for the following reasons:

- CO_2 pathways target a 2050 net-zero end point
- Portfolios are largely CO_2 dominated
- Data are available largely for CO_2, but is not as available or reliable for other GHG,[2] and
- Interquartile ranges eliminate some extreme outlier scenarios (noting that scenarios are not designed for portfolio steering but rather to test a range of assumptions in pursuing a given temperature outcome).

1 IPCC uses a range of 95/5th and 75/25th percentiles throughout its reports, NZAOA has historically used 75/25th interquartile range to remove outlier scenarios.

2 Several data providers have confirmed to the Alliance that even when CO_2e metrics are provided, non-CO_2 gases are largely unreported. In addition, several studies covering the next most reported gas, Methane, have shown the gas to be unreported by up to 60 per cent (EDF, 2020).

T13. Alliance members will continue to use CO_2 pathways as a proxy for all GHG gases, targeting a more ambitious year of net zero for all GHGs. **As a result, Alliance members shall target 40 per cent to 60 per cent reductions by 2030 (compared to YE2019) in line with IPCC estimates (AR6 Synthesis Report Summary for Policy-makers, table SPM.1).** For more information see Background Document, B29–B38.

2. Scope of the protocol

2.1 Coverage of assets by the Alliance's Commitment

T14. The Alliance's Commitment covers "all assets under management (and on balance sheet) managed by the asset owner while exercising asset allocation in fiduciary duty", (NZAOA 2022b) these include assets

- Managed in-house;
- Managed by third parties (e.g. ETFs, mutual funds, active/passive);
- Managed for shareholder; and
- Managed for policyholder (in cases where the asset allocation is carried out by the asset owner).

But excludes:

- Money managed by group-owned asset managers on behalf of third-party clients, as this is not considered asset owner money as either it is not on the balance sheet of the asset owner or (strategic) asset allocation is under the responsibility/discretion of clients/customers. This may include unit-linked, separate account asset, and mutual funds offered to 3rd parties, among others.

T15. However, the Alliance recommends that members engage third-party investment partners in discussions on net-zero ambitions and associated target setting.

T16. The Alliance acknowledges that asset owners are not equal in terms of business mix, regulatory obligations, investment goals, and management approaches. Alliance members have:

- Different starting points in terms of portfolio carbon emissions
- Diverse liability constraints
- Diverse sector allocations which may not reflect the global investment universe and may be geographically concentrated
- Very different asset class allocations, with pension funds at one end seeking diversification and balance across all asset classes, and insurance companies (which have a different business model) at the other end, concentrating on fixed income
- Different investment horizons and portfolio rotation cycles—constraining the ability to keep steady portfolio holdings

- Different levels of new business and growth
- Varying investment approaches: active management versus buy-and-hold strategies, high conviction versus index investments, direct ownership versus fund investments
- Varying objectives: including that some investors may invest in the decarbonisation of hard-to-abate sectors while others may prefer to avoid such sectors, and
- Diverse operational footprints and hence differences in geographical concentrations in their portfolios; as the Paris Agreement allows different country decarbonisation paths, this will lead to differences in pace of the decarbonisation of economies and thus portfolios.

2.2 Emissions coverage

T17. **Emissions scope coverage by the Alliance's Commitment**

The protocol's focus is on portfolio emissions (an asset owner's Scope 3) since these represent 95–97 per cent on average of an asset owner's emissions (Lütkehermöller et al. 2020). Alliance members ***shall*** therefore set targets on their own Scope 3 emissions.[3] However, Alliance members ***should*** also commit to net zero (by 2050) with respect to their own operational carbon footprint (Scope 1 and 2), assessing their carbon footprint in line with the GHG Protocol and developing short- and mid-term targets as intermediate steps towards their net-zero target.[4]

T18. **Emissions scope coverage of the underlying assets**

Portfolio companies also have their own Scope 1, 2, and 3 emissions targets. Depending on the sector, corporate data on Scope 3 emissions range from somewhat unreliable to highly unreliable, and several data providers estimate Scope 3 emissions with a wide range of outcomes (LSEG 2024). The estimation methods and reported data can differ significantly.

Alliance members will review the targets of the companies in their portfolio and ***shall*** set targets on the investee company's Scope 1 and 2 emissions. Alliance members ***should*** also set targets on the Scope 3 emissions of the portfolio company as soon as possible, and each individual Alliance member is encouraged to move as early as it deems feasible.

At the portfolio level, Alliance members ***should*** track Scope 3 emissions, but are not yet required to set targets on them until interpretation of these emissions in a portfolio context becomes clearer and data become more reliable.[5]

3 Emissions stemming from assets held only for investment purpose but where the asset owner is a majority owner or where the asset owner is in a control position need to be (partially) reported under Scope 1 and 2 (see GHG Protocol). Nevertheless, these investments shall be included in the investment targets set.

4 Those asset owners wishing to seek validation from the Science Based Targets initiative (SBTi) should follow the SBTi methodology for their operational Scope 1 and 2 GHG emissions.

5 Comparisons of Scope 3 data reported by similar companies indicate the largest degree of divergence in reported emissions. See Busch et al. 2018.

T19. **GHG coverage**

Alliance members ***should*** report on CO_2e basis. Wherever disaggregation is available for non-CO_2 GHGs, Alliance members ***should*** report on a disaggregated basis.

2.3 Base and target year

T20. The Alliance's Commitment (NZAOA 2022b) requires targets to be set every five years in line with the Paris Agreement Article 4.9 cycle, specifying a five-year cycle of 2025, 2030, 2035, etc. When Alliance members join between these dates, they ***shall*** establish targets that align with this cycle. The Alliance publishes five-year targets, while individual members may publish shorter or slightly longer (up to seven years when the next reporting cycle ends within two years). Members ***should*** therefore consider the following target dates and underlying data when setting their targets.

T21. **Table I:** Timetable with recommended target and base year for target setting

Joining year/year asset class method is made public	Year targets need to be set	Recommended base year dat	Target year data	Target year	Recommended reduction range
2019	2021	YE19	YE24	2025	TSP V1
2020	2021	YE19 or YE20	YE24		
2021	2022	YE20 or YE21	YE24		
2022	2023	YE21 or YE22	YE24 or YE29	2025 or 2030	TSP V2 or V3
2023	2024	YE22 or YE23	YE29	2030	TSP V3
2024	2025	YE23 or YE24	YE29		
2025	2026	YE24 or YE25	YE29		
2026	2027	YE25 or YE26	YE29		
2027	2028	YE26 or YE27	YE29 or YE34	2030 or 2035	

2.4 Adjustments on pre-existing targets

T22. For Alliance members with pre-existing, public targets, it is possible to translate their base year to an earlier year if scientific pathways were considered. For those using base years before or after YE2019 for the target year YE2024, members may add or deduct 5.5 percentage points to 7 percentage points from the emissions reduction ambition for their first targets, if they consider the overall ambition towards 2030. This is applicable for all target years, e.g. YE2029. However, it should be noted that the Alliance acknowledges that reductions of 5.5 percentage points to 7 percentage points per annum is not in line with actual global emission trends in years prior to the pandemic, and the real economy needs to make faster progress. As per the example: A member which would like to align with a 25-per-cent reduction target for the period YE2019 to YE2024, but which joins in 2020 and therefore publishes a new target in 2021, would take 6 percentage points from the range so 25–6 per cent = 19-per-cent target for YE2020 to YE2024.

T23. Finally, if setting an earlier base year, decarbonisation progress made before joining the Alliance must have been made public via a set target or evidenced via public reporting. To maintain consistency with the Alliance Reporting Cycle, public targets issued more than three years prior joining the Alliance ***should*** not be considered.

2.5 Target achievement and new 2030 target setting

T24. Those members who set a YE2024 target ***shall*** follow the below requirements for setting new YE2029 targets:

T25. **Table II:** Key aspects and reporting requirements on 2025 target achievement and 2030 targets

Key aspects of target setting	▪ Complete time coverage: members ***shall*** ensure every year is covered by a target. ▪ Timeline: new targets ***shall*** be set, at the latest, by the end of Alliance Reporting Cycle 2025, with earlier updates possible. ▪ Base year for subsequent target: members ***shall*** choose either YE2024 or the base year of their first target cycle. Diverging base years are allowed for asset classes that are gradually phased in. ▪ In case of target underachievement: The underachieved emissions delta ***shall*** be added to the new reduction target in case a member changes its initial base year to a subsequent base year. ▪ Alliance members ***shall*** follow the Target-Setting Protocol and, with this, the IPCC's 1.5°C scenario ranges with no or limited overshoot for all existing asset classes or asset classes being phased in for this target lifetime. ▪ Methodology change: Change of methodology and/or metric is allowed so long as it corresponds to a published methodology and metric within the fourth edition of the protocol; members ***shall*** communicate this and consider the impacts this change has on overachievement or underachievement of the target. ▪ Change of target types chosen (minimum three out of four, engagement is mandatory) is allowed.
Reporting to public	▪ Publication of new targets ***shall*** include three of four target types. ▪ Achievement of previous target ***shall*** be reported to the public by the end of Alliance Reporting Cycle 2025. ▪ New targets ***shall*** be published by the end of the Alliance Reporting Cycle 2025. ▪ Methodology change: If members change their methodology, Alliance members ***shall*** publish this change and clarify its impacts.
Reporting to the Alliance	▪ Achievement of previous target ***shall*** be reported to the Alliance by the end of the 2025 Alliance Reporting Cycle. ▪ New targets ***shall*** be reported to the Alliance in the 2025 Alliance Reporting Cycle, including a link to the public communication of the targets. ▪ Methodology change: If members change their methodology, Alliance members ***shall*** publish this change and clarify its impacts.

2.6 Introduction of the four-part target-setting approach

T26. **Four-part target-setting structure to contribute most effectively to real world GHG emissions reductions**

Reducing GHG emissions and having real world impact in a global, diversified investment portfolio is a complex challenge. No single stand-alone methodology was determined to address this challenge so the Alliance decided on a four-part approach for target setting. By combining the four parts, an asset owner can have the greatest impact and contribute to the desired transition towards a net-zero economy. Hence, Alliance members ***should*** set targets on all four parts.

T27. The minimum expectation is that each Alliance member ***shall***

- set targets on three target types out of four
- set targets on engagement as this is a mandatory target type
- report information on climate solutions investments

T28. Members ***shall*** set targets independently and in a manner that accounts for their specific investment scope, strategies, and internal governance structures.

T29. **Engagement targets**

Engagement targets help track member engagement activities with companies, sectors and/or value chains, and asset managers, while also guiding member efforts to engage with the broader investment and real economy sectors through position papers.

T30. **Sector targets**

Sector targets help link portfolio-level reductions to the carbon efficiency requirements of a given sector and, therefore, to real-world outcomes. Productivity-based, sector-specific targets for hard-to-abate sectors reflect the details of each sector, their respective energy transition trade-offs with other sectors in the global economy, and the role they are expected to play in the transition to a net-zero economy.

T31. **Sub-portfolio targets**

Sub-portfolio targets cover the asset classes where credible methodologies and sufficient data coverage exist as of the date of the target's publication. Later, once full coverage is reached, this target type will be termed simply, 'Portfolio targets'. The Alliance assessed the IPCC no and low overshoot 1.5°C scenarios and identified a global average absolute emissions reduction requirement in the range of 22–32 per cent by 2025 and 40–60 per cent by 2030.

T32. **Climate solutions investments targets**

Financing the transition to a net-zero economy is an important component of the Alliance Commitment as it is one aspect of investment portfolio alignment to net zero. Alliance members are encouraged to use the resources and capabilities available to them to grow the supply and the demand of net-zero investment solutions.

T33. In the following sections each target type will be covered, laying out how targets will be set and which requirements are connected to each target type. This is summarised in the below Figure I: Summary of four-part target-setting approach.

Engagement targets

Set at least one KPI in two of the following types of engagement:

- **Corporate:** Engage 20 companies with highest owned emissions or those responsible for combined 65% owned emissions in portfolio (either directly or via membership/asset manager/service provider)
- **Asset Manager:** Participate in engagements led by the Alliance, or its own internal systematic approach
- **Published Positions:** contribute to Alliance publications or net-zero papers published outside the Alliance
- **Sector/Value Chain:** Participate in Alliance sector work or external sector engagement activities.

Sector targets

- Intensity-based/absolute reductions on all material sectors
- Scope 3 to be included wherever possible
- Sector-specific intensity KPIs recommended
- Sectoral Decarbonisation Pathways used to set targets.

Intermediate targets for 1.5°C aligned, net-zero world by 2050 with real-world impacts

Sub-portfolio (later portfolio) emission targets

- 22% to 32% CO_2e reduction by 2025 (per IPCC AR6) on equity and debt to listed corporates, infrastructure, and with the same reduction or CRREM national pathways for real estate
- 40% to 60% CO_2e reduction by 2030 (per IPCC AR6)
- Covers portfolio emissions Scope 1 & 2, tracking of Scope 3
- Absolute or intensity-based reduction KPIs.

Climate solutions investments targets

- Reporting climate solutions investments to the Alliance and ideally showing a positive trend in climate solution investments over time (individual public quantitative progress target is optional)
- Active contributions to Alliance's Transition Financing Track working or consultation groups.

T34. **Figure I:** Summary of four-part target-setting approach

2.7 Approach on carbon removals

T35. The Alliance's approach to carbon removals is based on the two principles outlined below and is detailed in the Alliance's The Net in Net-Zero Position Paper (NZAOA 2022b). These principles either comply with, or are more ambitious than, both the Oxford Principles for Net-Zero Aligned Carbon Offsetting and the recommendations put forth by the United Nations' High-Level Expert Group on the Net Zero Emissions Commitments of Non-State Entities (2022). The Alliance recommends that members and their investee companies engage in an approach that:

1. Prioritises deep and rapid decarbonisation across all sectors, particularly the carbon-intensive industries.
2. Tracks progress against net-zero goals and ensure accountability such that the employment of carbon removals does not deter or detract from decarbonisation efforts and/or ambition on a wider scale.

T36. Therefore, Alliance members ***shall not*** use carbon removals for their own sub-portfolio or sector target achievement at this time or at any time before 2030 (when this protocol comes to term). Nevertheless, members are highly encouraged to contribute to a liquid and well-regulated carbon removal certificate market before 2030 as such a market is important for accelerating decarbonisation.[6]

T37. Alliance members ***shall*** encourage investee companies to prioritise abatement. To ensure ongoing and strong emphasis on carbon reduction, investee companies ***shall not*** use carbon removals exceeding emission levels indicated by broadly accepted sector pathways aligned with 1.5°C ("residual emissions" as defined by science-based sector pathways) to claim net-zero target achievement. Investee companies ***shall*** only incorporate carbon removal certificates with long-lived storage (as defined by the Oxford Principles). Alliance members ***shall*** require investee companies to obtain independent, broadly accepted verification.

T38. All reporting, by investee companies and by asset owners, ***shall*** be done on a gross basis showing emissions and removals separately, and ***shall*** be done on a sector-specific basis—showing emissions and removals separately, and accounting only for carbon removals that do not exceed the sector emissions budget (according to pathways with no or limited overshoot).[7]

T39. Alliance members are encouraged to invest in projects and technologies of durable CO_2 avoidance and removal to scale future markets rapidly. These investments may be reported under, and contribute to, achievement of a climate solutions investments target.

6 Note, the extent to which Alliance members may consider use carbon removal certificates after 2030 will be defined later by the Alliance. At such time, the Alliance will follow the best available scientific guidance.

7 Standard data providers often do not yet distinguish between gross and net emissions, nor do they frequently provide an indication of the quality of the removal. In these cases, asset owners are encouraged to undertake their best efforts to assess the type of removals utilised. In some cases, this may not be possible, especially for smaller-sized asset owners. In the meantime, the Alliance encourages all data providers to begin to source, assure, and provide this type of data.

3. Reporting

3.1 Members target and progress reporting

T40. As mentioned in Chapter 1, the principle of Alliance members reporting on target setting and progress is firmly rooted in the Alliance's Commitment (2022b) and Alliance's Governance document (2023b). Table III summarises the requirements of members related to the disclosure of targets and progress to the public and the Alliance. Reporting requirements to the Alliance will be specified for each of the four target types in the following sections.

T41. All adjustments made to targets and methodologies ***shall*** be communicated in a transparent way to the public, explaining the reasons and the methods in detail.

To 'publish' means to publicly disclose targets within the public domain, and the presentation is the discretion of the Alliance member respecting the member's own publication and communication requirements.

To 'report' the initial target means to submit the details of the publish target in accordance with the Alliance template to the Alliance Secretariat for review and aggregation in the annual progress report.

T42. **Table III:** Requirements for target setting and reporting to the public and to the Alliance

	Target Setting	Progress Reporting (against targets set)
Public Disclosure	Alliance members ***shall*** publish targets within 12 months of joining the Alliance. Examples of published members' targets can be found here.	Alliance members ***shall*** disclose annually, individually, and publicly, on progress towards individual targets, including on investment portfolios' emissions profile and emissions reductions. This includes reporting on absolute emissions, irrespective of whether intensity targets are set.
Submission to the Alliance Secretariat	These targets ***shall*** also be reported to the Secretariat using the Alliance reporting template for review and aggregation in the progress report within the next reporting period (unless a member joins within six months of the start of the reporting; then the member ***shall*** submit against the following year's reporting cycle, see Table IV).	Alliance members ***shall*** annually submit to the Secretariat (via a reporting template) their progress towards meeting their targets. This progress reporting includes investment portfolio emission profiles and emissions reductions, and ***should*** be based on the latest year-end portfolio figures.

3.2 Alliance reporting cycle

T43. The Alliance Reporting Cycle always takes place in the first half of every year, and may span the first and second quarter of each year.

T44. For new members, Table IV below lays out in which Alliance Reporting Cycle members ***shall*** report their first targets to the Alliance, depending on the month the member joined.

T45. **Table IV:** Alliance Reporting Cycle for reporting first targets to the Alliance

Year X	Year X Month of joining	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Year X+1	Targets reported to the AOA in Reporting Period of Year X+1	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes				
	Time from joining until target setting	16 months	15 months	14 months	13 months	12 months	11 months	10 months	9 months				
Year X+2	Targets reported to the AOA in Reporting Period of Year X+2									Yes	Yes	Yes	Yes
	Time from joining until target setting									20 months	19 months	18 months	17 months

T46. Each Alliance member is also encouraged to go beyond the protocol by setting more ambitious targets. More ambitious quantitative targets in the areas defined in the protocol may be submitted through the reporting template. Any asset class that is not (yet) covered by the protocol may not be not systematically collected; however, members are encouraged to publish such targets independently.

3.3 Alliance progress reporting

T47. The Alliance ***shall*** issue an annual progress report reflecting the Alliance's work and achievements. The annual progress report is based on the aggregated data of Alliance members' reporting to cover progress against targets to date. In addition, the Alliance ***shall*** issue a more detailed report on quantitative achievements every five years. For both purposes, the Alliance will release some of the submitted data in aggregated form. Member-specific data will only be made available via links to public disclosures as provided by members to the Alliance.

4. Engagement targets

4.1 Introduction and the definition of engagement

T48. Engagement is perhaps the most important mechanism asset owners have to actively contribute to a net-zero transformation. The Alliance engagement targets should reflect this ambition to generate real world impact.

T49. In addition to targeting real-world decarbonisation, engagement efforts need to outline what action is taken when engagement expectations are not met. Alliance members ***should*** therefore:

- clearly define escalation measures for their own climate engagements or set escalation expectations for the asset managers conducting climate engagements on their behalf.
- design these escalation measures to accelerate a just transition to a 1.5°C-aligned no/low overshoot orientation in the real economy.
- ensure that these targets are set in conjunction with any sub-portfolio or sector targets that the asset owner member sets.

T50. Many Alliance members have ongoing direct and collaborative corporate engagements focused on net zero. The Alliance encourages these efforts, while also seeking additive ways to contribute to the investor's net-zero engagement efforts. One of the most important and impactful engagement opportunities that the Alliance can directly facilitate is engaging asset managers to support greater climate action in line with our long-term interests and alignment with the Alliance's 1.5°C objective. This focus is driven by the recognition that asset managers are key partners for member's net-zero alignment, often taking responsibility for actions that impact member's net-zero alignment through allocating assets, conducting corporate engagements, casting proxy votes (notably on directors and climate resolutions), and acting as an important voice in the business community.

T51. Alliance members ***shall*** engage their asset managers to increase:

1. Understanding of how asset managers are representing the asset owner's long-term climate interests
2. The alignment between the asset manager's actions and their interest as an asset owner when necessary.[8]

8 unpri.org/policy/a-legal-framework-for-impact (page 119)

T52. Asset owners ***should*** encourage stewardship activities by asset managers that move beyond incremental and linear levers, which are insufficient to meet the Alliance's ambition of limiting global temperature rise to 1.5°C. This means moving some corporate engagement topics, like transparency requests, into public expectations of all portfolio companies that are reinforced by systematic stewardship action, such as votes against directors. Lastly, the expansion of activities beyond corporate engagement should include sector and policy engagement (see Background Document, B48).

T53. To guide Alliance members' engagement of asset managers on systemic stewardship, the Engagement track has published three discussion papers in line with the stewardship needs outlined in 'The Future of Investor Engagement paper'. These three papers are:

1. Elevating Climate Diligence on Proxy Voting Approaches: a foundation for asset owner engagement of asset managers (hereafter: 'Proxy Voting publication')
2. Aligning Climate Policy Engagement with Net-Zero Commitments: a foundation for asset owner engagement of asset managers (hereafter: 'Policy Engagement publication')
3. Elevating asset manager net-zero engagement strategies: a foundation for asset owner expectations of asset managers (hereafter: 'Engagement Best Practices publication')

T54. Corporate and asset manager engagement is further supported by position papers published by the Alliance that outline clear and practical steps for net-zero-committed investors to take on complex topics related to the transition.

T55. **Definition of engagement**

The below excerpt from the Alliance's Engagement Best Practices publication sets the minimum **definition of engagement**.[9] This definition is intended to guide investor activity towards the Alliance's collective commitment to support the net-zero transition and aligns with the definition of engagement as active dialogue, as put forward by the Investor Forum[10] (2019).

1. Climate risk and/or opportunity is raised with an issuer.

Climate engagement consists both of raising climate risks and/or opportunities that an investor has identified through a process-driven approach (such as scoring, thematic research, or consideration of portfolio- and economy-wide impact), and of providing the investor's description of why it is important that the issuer addresses the specified topic.

9 In order to distinguish engagement from stewardship, a definition of stewardship can be found in the discussion paper on Aligning Climate Policy Engagement with Net-Zero Commitments (2023).

10 The Investor Forum (2019, p.1): "Engagement is active dialogue with a specific and targeted objective. It is intended to put the stewardship role into effect. The underlying aim of the engagement dialogue should always be to preserve and enhance the value of assets on behalf of beneficiaries and clients."

2. **Investor sets expectations for issuer action.**

All climate engagements—including with individual issuers, policymakers, and industry bodies—should have clear and well-defined objectives linked to public accountability frameworks, standards, or equivalent mechanisms to ensure rigour and transparency.

T56. The Alliance encourages all investors to expand the constructive dialogue on their engagement programmes by discussing not only their successes, but also the limitations and challenges that they encounter. Furthering the identification and collective understanding of these barriers can help move engagement practices forward and thus allow the finance industry to accelerate decarbonisation.

T57. **Guidance for Alliance-aligned engagement ambitions**

The following paragraph provides guidance to Alliance members on the expectations of their engagement activities with companies and asset managers to ensure alignment with the Alliance's ambition. By focusing on common goals, the delivery of positive real-world outcomes (by expanding the coverage of entities engaged by Alliance members on net-zero expectations) and enhanced collaboration, the Guidance for Alliance Engagement Ambitions is consistent with the PRI Active Ownership 2.0 framework.

T58. **Alliance members' net-zero engagement requests to all companies to:**

- Publicly commit to support the transition to a net-zero world by 2050 in line with no/low overshoot 1.5°C.
- Immediately put into place strategies and transition plans that commit the company to net zero GHG emissions across their value chains by no later than 2050 and to be supportive of the transition to a net zero GHG emissions world by 2050. These strategies or plans ***should*** also include a focus on alignment of lobbying practices with net zero.
- Accelerate progress towards full 'green' on the CA100+ Net Zero Company Benchmark indicators, or, if not a CA100+ focus company, to still meet all of its expectations.
- Set science-based, near-term GHG reduction targets that are in line with reaching net zero emissions by 2050, consistent with 1.5°C no/low overshoot scenario.
- Develop and implement plans for their businesses to remain viable in a carbon-neutral economy, with meaningful consideration of associated social impacts.
- Support the adoption and implementation of governmental policies and regulations that facilitate the transition to net zero emissions within their sector and value chains.
- Support, prepare for, and not disrupt pricing mechanisms on GHG emissions.
- Take action and make progress on efforts to lower GHG emission intensity of their operations and products.

- To disclose their efforts and progress on decarbonisation in line with the four core elements of TCFD recommendations.

T59. **Alliance members' net-zero engagement requests to all asset managers to:**

- Publicly commit to support the transition to a net-zero world by 2050 in line with no/low overshoot 1.5°C.
- Commit their entire portfolios to 1.5°C alignment and net zero by 2050, preferably through an established framework like the Net-Zero Asset Manager Initiative.
- Collaborate with Alliance members in developing viable opportunities to finance the transition to net zero and expand the 1.5°C-aligned investable universe, including through collaboration on blended finance vehicles.
- Publish their approach to integrating climate risks and opportunities (both transition and physical) across their portfolio management and stewardship team's training and activities.
- Use systematic engagement approaches to streamline engagement efforts, where possible; for example, call publicly for company or sector action and systematically reinforce expectations through principle and merit-based voting, as detailed in the Alliance's Proxy Voting publication.
- Align their climate policy engagement policies and practices with any stated commitments to net zero, as detailed in the Alliance's Policy Engagement publication.
- Clearly state the benefits and limitations of their climate engagement programme(s) and/or stewardship activities, and how the limitations are addressed via complementary workstreams, including how they leverage public discourse. This includes how their engagement approach differs across asset classes, what levers of influence are applied to each, and how their approach supports portfolio decarbonisation objectives, as detailed in the Alliance's Engagement Best-practices publication.
- Adopt policies that are congruent with Alliance position papers; for example, the Alliance's Thermal Coal Position (2020a) and the Alliance's Position on the Oil and Gas Sector (2023c).

T60. In addition to engaging their investee companies, asset managers and policymakers on net-zero expectations, the Alliance members also want to hold themselves and their own activities to the same standards that they expect of others. Therefore, in light of its support for the CA100+ Net Zero Company Benchmark as a useful tool for engaging and assessing companies and asset managers, the Alliance evaluated the indicators that are relevant for its own activities. See Background Document B50 for more details on how the Alliance aligns the CA100+ benchmark criteria.

4.2 How to set targets

T61. All engagement activities seek to move towards a common goal: to support the transition of the real economy to align with a 1.5°C scenario with no or limited overshoot.. Therefore, to meet the Alliance net-zero engagement commitments, members ***shall*** set targets in at least two categories, and, where possible, in all four categories. If members are working with asset managers, the asset manager engagement category is mandatory.[11] The member is free to choose how engagements are implemented. Engagements can be conducted directly (through bilateral engagement), collaboratively (through an Alliance working group, CA100+, or any other collaborative engagement initiative in line with the Alliance ambitions), or delegated to an external provider (e.g. asset manager or service provider).[12]

T62. The targets ***should*** be set at the level of the selected categories, whereas providing additional detail for KPIs on bilateral, collaborative, or delegated engagement for each KPI is optional.

1. **For asset manager engagement:** set up or maintain a structured engagement approach that is integrated with the asset owner's selection, appointment, and monitoring activities of asset managers. The member ***should*** utilise the expectations of asset managers described in T59. Notably, this includes the three publications from the Alliance's Engagement Track that outline best practices for asset owners engaging to encourage the long-term alignment of their asset managers' activities on proxy voting, policy engagement, and engagement best practices.
2. **Corporate engagement:** identify either i) 20 companies with a preferential focus given to companies that the asset owner believes will have the largest real-world decarbonisation impact (e.g. those with the highest owned emissions in their portfolios), or ii) the companies responsible for at least 65 per cent of owned emissions in asset owners corporate bond/equity portfolio; and ensure these companies are covered by engagement activities in line with the Alliance's ambition, with a focus on non-aligned emitters.[13]

11 If an asset owner has a majority of its portfolio internally managed and decides that asset manager engagement is not its strategic focus, it can revert its engagement programme of the Alliance engagement targets to corporate engagement.

12 The Alliance members are of different size, geography, and business nature. Therefore, they have different engagement strategies and operations. As such, a one-size-fits-all approach is insufficient. Instead, the Alliance identifies various options by which the members can set and report on targets.

13 'Non-aligned' refers to those emitters that do not already have Paris-aligned commitments or do not have a concrete set of mid-term reduction targets. Alignment with PAII or CA100+ benchmarking criteria is encouraged.

3. **Sector and value chain engagement:** support and participate in engagements with multiple companies and their stakeholders present from the same sector or value chain, most often collaboratively with other investors.[14] Examples of sectoral workstreams that address climate topics and that exist outside the Alliance include the CA 100+ Global Sector Strategies Workstream and the Global Investor Commission on Mining 2030.

4. **Publication contributions:** contribute to the creation and publication of position, guidance, or discussion papers (or similar) on pertinent climate topics that are in line with the Alliance's ambition. Support for the drafting of Alliance position papers and other publications includes taking part in relevant working groups and/or drafting feedback for papers. Members can count contributions to other initiatives' development of publications on climate-focussed topics so long as the final paper is in line with the Alliance's net-zero ambition.

14 In all cases, collaborative engagement will be undertaken with proper respect of antitrust laws and regulations or applicable regulatory requirements

4.3 Metrics[15]

T63. **Table V:** Categories and KPIs of engagement targets with guidance

Category	KPI	Overview	Guidance
Asset Manager Engagement Actions	**Asset managers bilaterally engaged on climate change policies, including (but not limited to) engagement leveraging the three key Alliance publications on asset manager engagement**	**Focus:** This KPI aims to capture a member's engagement activities with asset managers related to climate-related stewardship activities. **Scope:** Qualifying actions include bilateral engagement with asset managers on climate specific topics (for existing managers) and building in climate expectations on climate topics for asset manager selection, appointment, and monitoring programmes (for new asset managers).	The asset owner engages with asset managers on where they see opportunities for greater alignment between owner's commitment to support transition to net zero and manager's climate-related stewardship activities. The asset owner also has the option to leverage requests made by the three key Alliance publications on asset manager engagement (Proxy Voting, Policy Engagement, Engagement Best-practices) with their asset managers. Asset owners should prioritise the points they deem to be the most impactful and effective in all asset manager engagements. Discussing with a manager their progress on implementation and alignment with asset owner expectations also counts as an engagement. **Note:** The asset owner ***should*** integrate the Alliance's Proxy Voting publication, Policy Engagement publication and Engagement Best-practices publication into their processes for selecting, appointing, and monitoring of their asset managers, where applicable.
	Asset managers collaboratively engaged on climate change policies and/or three key Alliance publications on asset manager engagement	**Focus:** This KPI aims to capture collaborative asset manager engagement activities. Scope: Qualifying actions include collaborative engagement with multiple asset owners engaging asset managers on specific net-zero-related topics. This could include participating in collaborative engagement opportunities with other Alliance members.	The asset owner joins collaborative engagement conversations for the purpose of communicating net-zero expectations, reinforcing climate guidance documents, and developing further guidance. Topics could include the points covered in the requests to all asset managers within the Target-Setting Protocol and/or best practices from key Alliance publications on asset manager engagement (Proxy Voting, Policy Engagement, Engagement Best Practices, or other Alliance positions).
Corporate Engagement Actions	**Collaborative engagements supported by the member, for example via CA100+**	**Focus:** This KPI aims to capture of collaborative engagement. Scope: Qualifying actions include meaningful support of collaborative engagement with companies, which are in line with the ambitions of the Alliance. The Alliance defines meaningful support as taking a leadership role or active participation in the preparation and execution of engagements.	The asset owner ***should*** actively participate in collaborative initiatives (such as those offered by the CA100+ initiative), ideally by co-leading or actively collaborating on corporate engagements. Members ***should*** also take part in at least one engagement exchange with the respective company within the reporting year to count their participation as a collaborative engagement. Note that each company counts as one engagement regardless of the number of points of contact during the year.
	Bilateral engagements in line with the Target-Setting Protocol requests and corporate expectations for all companies executed by the asset owner directly	**Focus:** This KPI aims to capture all corporate engagement activities pursued by the member bilaterally that contribute to more companies meeting the Alliance's net-zero corporate expectations. **Scope:** Qualifying actions include bilateral corporate engagements where the Alliance member advocates for the Alliance's net-zero corporate expectations as outlined in this chapter of the protocol and articulated in an open letter to portfolio companies (NZAOA 2020b). They are also available to members with additional context in an Alliance internal engagement briefing. Engagements that do not meet this level of ambition ***should*** not be included in this KPI.	The asset owner is required to establish a point of contact with the company that outlines its commitment to net zero and prioritises key topics that align with the requests of all companies within the Target-Setting Protocol or employing the "Representing the Alliance Ambition in Corporate Engagements" document. This can be done through written communication, virtual meetings, or in-person interactions. The asset owner may prioritise the requests of the companies as it sees fit, in a manner that it believes will be the most impactful in driving change.
	Single engagements contributing to net zero with delegated execution to an asset manager or external third party through an explicit request or monitoring	**Focus:** This KPI aims to capture all corporate engagement activities pursued by a member's asset managers with explicit delegation from the asset owner member. **Scope:** For these engagements, the member has delegated engagement responsibility to its asset managers or engagement service providers. These engagements are valid for reporting on KPI's so long as the underlying engagements are in line with the Alliance's ambition. When conducted by its asset manager or service provider, the engagement ***should*** be either at the explicit request of the asset owner, or the asset owner ***should*** have regular and ongoing monitoring of the asset manager or service provider's progress with the respective company.	An explicit request for engagement involves the asset owner requesting that the engagement be performed either directly by the asset manager or through an engagement service provider. Monitoring of the engagement involves the asset owner keeping track of the asset manager's progress. The engagement still qualifies if the asset manager has already started the engagement or is conducting it on behalf of multiple clients. Regular follow-ups (at least annually) with the asset manager or service provider are required to confirm that the asset owner's net-zero ambitions are being represented in the engagement.
	Following engagement conducted directly or initiated by the asset owner, investees set science-based targets (and verified by a reputable organisation, like the SBTi) or publicly commit to achieving net zero in their business operations before 2050[16]	**Focus:** This KPI aims to capture the progress of engagement activities via an outcome-based metric. **Scope:** Portfolio companies that have set a science-based target in key Alliance sectors following an engagement.	This lists the number of companies in the asset owner's portfolio that have set science-based targets or committed to reach net zero emissions (Scope 1, 2) in their business before 2050, after an engagement was initiated by the asset owner or by an asset manager/service provider on the owner's behalf.

15 In all cases, Alliance members will implement their strategies with respect for antitrust laws and regulations or applicable regulatory requirements.
16 Science based targets as verified by the SBTi as well as corporate targets that can be shown to be based in scientific scenarios will be accepted (reference to appropriate sector pathways should be included in the latter case). Verified targets are encouraged.

Category	KPI	Overview	Guidance
Sector and value chain Engagement Actions	Collaborative sectoral engagements supported by the asset owner, such as via CA100+	**Focus:** This KPI aims to capture collaborative engagement focused on sectors/value chains. **Scope:** Qualifying actions include any support for collaborative engagement with sectors, which are in line with the ambition of the Alliance; e.g. taking a leadership role or active participation. It could also include a contribution to the creation of sector positions or contributing to sector roundtable discussions by either representing their institution as a member of the Alliance or helping organise the engagement.	This reflects the number of sector engagements supported by the asset owner. If the asset owner is participating in multiple initiatives within the same sector or multiple sectors within the same initiative, it can count each distinct initiative or sector that it take part in as an additional engagement (Example 1). However, if the asset owner is involved in the same initiative and same sector, it will only be counted once, regardless of the number of individual events in which it participated (Example 2). **Example 1:** The member takes part in collaborations for two sectors across two initiatives. Within one initiative, it participates in both sectors; within the other initiative, it participates in only one sector. This counts as three engagements. **Example 2:** The Member joins a collaboration on a single sector in a single initiative. The initiative has five meetings with sector participants over the period of two years. This counts as one engagement.
Publications Contribution Actions	Contributions to net-zero papers published by the Alliance (collaborative)	**Focus**: This KPI aims to capture a member's contributions to Alliance publications. The types of publication in scope include position papers, guidance papers, and discussion papers. More details on the nature of the types of publications can be found in the Alliance's Standard Operating Procedures. **Scope**: Qualifying actions for a contribution include material participation in a paper's development via the respective working group track. Examples of material participation include written feedback delivered as text, comments and edits, or in verbal format during position paper working meetings. Note: It is estimated that the track will produce two to three publications per year. Members are informed of the start of new publication development and of opportunities to contribute through the Alliance's newsletter and the all-member quarterly calls.	The asset owner actively participates in the drafting and finalising of a paper, making meaningful contributions as outlined in the scope.
Publications Contribution Actions cont...	Individual contributions to net-zero papers published outside the Alliance	**Focus**: This KPI aims to capture a member's contribution to building reference climate positions and relevant publications via initiatives complementary to the Alliance. **Scope**: Qualifying actions include taking part in the working group and drafting of a net-zero position, guidance, or discussion paper. The papers ***should*** be public documents that advance asset owner's net-zero expectations on topics of key relevance to the net-zero agenda (i.e. that may have policy implications). The papers must include a clear reference to the net-zero/1.5°C goal.	The asset owner ***should*** either publish its own paper on net zero or publicly endorse papers that it has actively contributed to during the drafting process. The paper's contents ***should*** be aligned with the ambition of the Alliance.

4.4 Reporting to the Alliance

T64. The number of companies, asset managers or sectors engaged by Alliance members ***shall*** be reported in a cumulative manner over the course of the relevant target period. For clarity, cumulative reporting is based on the number of companies, asset managers or sectors engagements conducted by the member from the start of the target period until the close of the respective reporting date. The length of engagement, or the number of contacts, within the target period does not change the figure reported. This approach helps demonstrate each Alliance member's progress over time to reach their targets. Figure II below demonstrates how an Alliance member ***shall*** report progress on their targets. This example shows a member whose target is to engage with eight companies in its portfolio over the 2019–2025 period. Company 2, which is engaged consecutively in 2021 through to 2024 only counts as one engagement in this example.

	2020	2021	2022	2023	2024
Companies engages within the year	Company 1	Company 1 Company 2 Company 3	Company 2 Company 4 Company 5	Company 2 Company 6 Company 7 Company 8	Company 2 Company 4 Company 6 Company 8
Contribution towards targets	**=1**	**=3**	**=5**	**=8**	**=8**

T65. **Figure II:** Example of counting contributions to engagement target setting

5. Climate solutions investments targets

T66. The overall focus of the Alliance is investment portfolio alignment towards a net-zero world and financing the net-zero transition. The Alliance's Transition Financing Track's efforts contribute to enlarging the scale, pace, and geographic reach of financing the net-zero transition through the following objectives:

- Create an enabling environment to finance the net-zero transition by engaging with service providers to develop tools and instruments that support investment portfolio steering and transparency
- Contribute to financing the net-zero transition; e.g. in emerging markets and 'technologies of tomorrow', through de-risking activities and identifying and addressing barriers
- Provide guidance on investing that supports target setting and transparency on financing climate solutions

T67. As asset owners have a fiduciary responsibility to achieve a given level of risk/return, investments in climate solutions are required to be as economically viable as other investments. The Alliance therefore strives to collaborate with all stakeholders (e.g. public finance institutions such as development finance institutions and multilateral development banks, policymakers, asset managers, philanthropy and other stakeholders) to work on de-risking mechanisms and enlarging the supply of opportunities to invest in climate solutions.

5.1 Introduction and definition of climate solutions investments

T68. To enable consistency across the Alliance membership, a definition for 'climate solutions investments' has been established, taking into account publicly available definitions:

T69. **Climate solutions investments are investments in economic activities considered to contribute to climate change mitigation (including transition enabling) and/or adaptation, in alignment with existing climate related-sustainability taxonomies and other generally acknowledged climate related frameworks.**[17]

17 The Alliance provides respective guidance for its members via a separate internal document.

T70. The Alliance explicitly considers net-zero transition enabling investments as high-impact investments, which substantially contribute to the net-zero transition; e.g. high voltage direct current transmission lines, smart grids, electric battery plants, etc.

T71. Climate solutions are critical to fulfilling net-zero commitments and transition finance plans in conjunction with the activities covered by the three other Alliance objectives outlined in this protocol. As such, the climate solutions investments target focuses on climate-related "green" investments. The elements of transitioning are captured within the Alliance members' individual sub-portfolio and sector targets.

T72. These investments strongly support an orderly transition of the economic system. In financing the net-zero transition, climate solutions investments can strongly contribute to accelerating the real economy's transition by allocating capital in companies, financial instruments, and projects to limit climate change, foster the transition to a low-carbon economy, and promote sustainability.

T73. In addressing climate change adaptation, climate solutions investments set out to reduce the risk of adverse impacts from climate change, especially climate hazards. Examples of climate solutions investments for adaptation include building defences to protect against sea-level rise or planting more heat-resistant crops. These investments ***should*** contribute to climate change mitigation and pathways that keep global warming in line with 1.5°C with no or limited overshoot.

T74. **Climate solutions investments can be pursued through several channels and through most asset classes of asset owners:**

- Green revenues: these can also comprise the green revenue proportion generated by investing in companies whose activities and/or products contribute to climate solutions in accordance with authorities' green taxonomies or other recognised frameworks. The investment amount is the sum of the exposure in green revenue shares in the invested companies.
- Green assets: climate solutions investments consist of green assets in compliance with the existing guidelines defined by recognised international bodies such as the International Capital Market Association, Green Bond Principles, the Climate Bond Initiative, and the Loan Syndications and Trading Association Green Loan principles, among others.

5.2 How to set targets

T75. Climate solutions investments targets ensure that Alliance members use the resources and capacities available to them to also grow net-zero solutions in their investment portfolios. Alliance members ***should*** build on their network of governments, asset managers, industry, and other stakeholders to contribute to this overarching target. Asset owners ***shall*** support the growth of climate solutions investments as defined above, in line with the domestic context and supportive of aspirations of national governments towards the goal of limiting global warming to 1.5°C on no/low overshoot trajectories.

T76. All Alliance members ***shall***:

- **Annually report to the Alliance Secretariat their Climate solutions investments.** It is expected that this demonstrates a positive trend in climate solutions investments over time.

T77. In addition to the above to set a climate solutions investments target, members ***shall***:

- Make active contributions to the Alliance's Transition Financing Track's sub-working or consultation groups
- Conduct a credible assessment that the economic activities contributing to the objectives of the investment do not cause significant harm to people and the environment.[18]

T78. It is optional for members to set a quantitative target on climate solutions investments. The below table summarises requirements for members.

T79. **Table VI:** Summary of climate solutions investments reporting and target-setting requirements

	All Alliance members	Alliance members setting a climate solutions investments target
Reporting climate solutions investments to the Alliance	Yes	Yes
Setting a target to contribute to the Transition Financing Track	Optional	Yes
Setting a quantitative target on climate solutions investments	Optional	Optional

Many frameworks exist and Alliance members ***should*** take this guidance into consideration when choosing an investment that qualifies as a Climate Solutions Investment.

18 In line with existing applicable frameworks, such as the EU Taxonomy or Canada's Taxonomy Roadmap Report.

5.3 Metrics

T80. Furthermore, the Alliance's Transition Financing Track develops content and guidance via several established sub-working groups as well as through more ad-hoc consultation groups. Actively contributing to these groups is a prerequisite for Alliance members to achieve their individually-set climate solutions investments targets. This includes active contribution to delivering content on climate solutions specifically and also other sub-working groups' topics within the Track, for example:

- Ask questions, propose ideas, raise concerns, and prepare and present content in response to calls by the Transition Financing Track and its sub-working groups
- Share best practices with the sub-working group based on their individual areas of expertise or on subject matter insights derived from other relevant stakeholders, initiatives, publications, projects, studies, or events
- Contribute to knowledge building, exchange, and the drafting of internal guidance as well as public publications by writing sections, reviewing drafts, and offering constructive feedback
- Drive, shape, and raise ideas for projects, objectives, and the Alliance's overall work plan.

5.4 Reporting to the Alliance

T81. All Alliance members ***shall***

- Annually report their climate solutions investments to the Alliance Secretariat. It is expected that this demonstrates a positive trend in climate solutions investments over time.

T82. The reporting on climate solutions investments ***shall*** include the following metrics:

- USD assets under management of climate solutions investments portfolio, with an asset class breakdown
- optional: report split of climate solutions investments in OECD and non-OECD countries.

6. Sector targets

T83. The global carbon budget[19] as referenced by the Alliance is the cumulative amount of CO_2 and other GHG emissions that the world can permit until the end of the century to stay within a 1.5°C threshold. Sector targets are conceptualised so as to allocate this remaining carbon budget across economic sectors and split by geographic locations, using a set of economic and technological assumptions compatible with 1.5°C pathways. In particular, setting sector targets on production-based intensities relates to real-world decarbonisation and efficiently informs asset owners' engagement processes.

6.1 Introduction

T84. Setting sector targets is a relatively new exercise for asset owners. Therefore, Alliance members who set sector targets ***shall*** progressively implement sector targets, beginning with their most material sectors (from an owned-carbon emissions standpoint). Alliance members ***shall***

- Set sector targets on Scope 1 and 2, as well as
- Track and report on Scope 3 emissions.

T85. Alliance members ***should*** set sector targets on Scope 3 where possible.

6.2 How to set targets

T86. There are three steps involved in setting sector targets. Alliance members that choose to set sector targets ***shall***:

T87. **Identify the most material sectors in the investment portfolio on an owned-emissions basis**

Members setting sector targets as of 2023 ***shall*** cover all sectors listed below Figure III. If members are unable to set targets on all required sectors, they ***shall*** fully explain their constraints (e.g. data availability or no exposure to the sector) and ***shall*** ensure that at least 70 per cent of their total owned emissions are covered by a sector target by YE2024. The 70-per-cent threshold refers to the sectors within the investment portfolio representing 70 per cent of total owned emissions. The Alliance recognises that due to data availability issues, a member may not be able to reach an effective coverage of 70 per cent of its investment portfolio owned emissions. If a minimum of 70 per cent is not covered by YE2024, the member would not

19 For a given warming level, the IPCC's Working Group I assessed the remaining carbon budget from the beginning of 2020 onwards. These are 650/500/400 $GtCO_2$ for limiting warming to 1.5°C with a chance of 33%/50%/67%, respectively.

be able to use sector targets as one of its selected 'three out of four' target types. The identified threshold for setting targets at sector level ***should*** be commensurate with both the member's portfolio size and the portfolio emissions profile, both in absolute and relative terms. Setting combined targets for all transport sub-sectors and materials sub-sectors is possible.

Sectors in scope for target setting	
Oil and gas	Agriculture, forestry, and fisheries
Utilities (including coal)	Chemicals
Materials ▪ Steel ▪ Cement ▪ Aluminium	Construction and buildings Water utilities
Transport ▪ Civil aviation ▪ Shipping ▪ Road transport	Textiles and leather

T88. **Figure III:** Sectors in scope for target setting

T89. Sector targets related to fossil fuel sectors

Following the scientific consensus as derived from the IPCC's pathways with no or limited overshoot on fossil fuel sectors, the Alliance has developed position papers on Thermal Coal (2020a) and a Position Paper on the Oil and Gas Sector (2023c).

T90. Identify available carbon emission metrics for the identified sectors

Alliance members ***should*** set targets using absolute emissions or economic or production emission intensities. However, members ***shall*** set targets using production-based metrics wherever possible before using economic-based metrics. The Alliance is mindful that relevant production-based data may be limited. For this reason, the Alliance issued a Call to Action to companies and data providers to provide critical sector data (2022d). All carbon emission metrics are elaborated by sector in Section . For a comparison of carbon emission metrics, see Background Document B55.

T91. Select and apply a modelled sector pathway

To set a target on sector level, members select a modelled sector pathway. Where available, the Alliance member may apply the proposed sectoral decarbonisation at the relevant country or regional level such as the sector pathway is representative of their investment portfolio. A small number of models/scenarios are known to provide sector decarbonisation pathways for both total CO_2e emissions on Scope 1 and 2, and on a sector product/production-specific level using an production-based metric. At this time, Alliance members ***should*** use either the One Earth Climate Model (Teske et al. 2020), which also includes Scope 3, or the IEA Net Zero by 2050 model, or any 1.5°C scenario with no or limited overshoot from the IPCC which provides sector granularity. For a detailed comparison of the sector pathways, see Background Document B56 onwards.

T92. If a member decides to set sector targets, members ***shall*** set the targets expressed either as a percentage of reduction in carbon metrics or the carbon level (absolute or intensity basis) that it aims to reach by the target year. These targets ***should*** be aligned with the sector decarbonisation pathway milestones set in the recommended models (i.e. One Earth Climate Model or IEA Net Zero by 2050).

6.3 Metrics

T93. **Table VII:** Recommended production-based and economic-based metrics per sector

Production-based metrics		
Oil and Gas		$gCO_2(e)/MJ$ gCH_4/MJ
Utilities		$tCO_2(e)/MWh$ gCH_4/MJ
Transport	**Aviation**	$gCO_2(e)/RTK$ (reported separately for short- and long-haul flights)
	Shipping	$gCO_2(e)/TKM$
	Heavy duty road	$gCO_2(e)/TKM$
	Light duty road	$gCO_2(e)/KM$
Materials	**Steel**	$tCO_2(e)$/tonne of crude steel
	Cement	$tCO_2(e)$/tonne of cementitious product
	Aluminium	$tCO_2(e)$/tonne of aluminium
Agriculture, Forestry and Fisheries	**Agriculture**	tCO_2/tonne of agricultural product CH_4/tonne of agricultural product NO_2/tonne of agricultural product
	Forestry	$tCO_2(e)$/tonne of forestry product For Paper: $tCO_2(e)$/tonne of pulp, paper and paperboard
	Fisheries	$tCO_2(e)$/tonne of edible protein
Chemicals		$tCO_2(e)$/tonne of chemical produced
Construction and Buildings		$CO_2(e)/m^2$/annum kWh/m^2/annum
Water utilities		$CO_2(e)/m^3$
Textiles and leather		$tCO_2(e)$/tonne of manufactured goods produced

Economic-based metric
$tCO_2(e)$/ Mn USD (EVIC or EV) $tCO_2(e)$/ Mn USD (Revenue)
Absolute emission metrics
$tCO_2(e)$

6.4 Reporting to the Alliance

T94. When setting sector targets, Alliance members ***shall*** report on the chosen target year and base year, as well as the targeted reduction or carbon level for each sector with the respective metric used. Alliance members ***shall*** also report the absolute emissions reductions associated with the necessarily intensity-based targets described above.

7. Sub-portfolio targets

7.1 Introduction and general requirements

T95. Together with the sector targets, the sub-portfolio targets are the most significant quantitative component of the Alliance's target setting framework and reporting rubric. Sub-portfolio targets aim to guide a decrease in the overall emissions profile of the portfolio. They enable an aggregate ambition and monitor progress, notably achieved through engagement and financing activities.

T96. **Members' sub-portfolio targets *shall* strive for science-based GHG reductions versus YE2019 as described above in the range of 22–32 per cent by YE2024, and 40–60 per cent by YE2029.** All requirements for each investment type are outlined in the subsequent asset class tables in Section . Members may choose to fulfil these obligations either per investment type individually or by using a portfolio approach combining and aggregating various asset classes—setting and disclosing targets for a pool of investments, which encompass investment types mandated by the Target-Setting Protocol. Sub-portfolio targets will be referred to as simply 'portfolio targets' when available methodologies and data cover more than 85 per cent of the asset classes.

T97. Members ***should,*** wherever possible, seek third-party assurance on their emissions data and associated methodological processes.

T98. **Types of assets**

This protocol distinguishes between assets based on whether they are invested:

- In corporations (incl. Infrastructure) or real estate
- As equity or debt
- Directly or indirectly where indirect investments are also called "funds" and are defined as all investments in vehicles and structures
    - Where the asset allocation is done by an external asset manager and the vehicle is not consolidated on the asset owners IFRS (or similar) balance sheet, and/or
    - In a "blind pool", where the asset owner commits a certain amount into the vehicles' investment strategy not knowing the individual investments at the time of commitment.

T99. **Guiding principles**

The various granular methodologies for the different asset classes all follow a sample of common principles:

T100. **Methodology principles**

1. Methodology ***shall*** be guided by science and in line with 1.5°C degree no or limited overshoot scenarios.
2. Methodology ***should*** first be defined by the underlying asset class (e.g. Real Estate, Corporations) and secondly by the investment vehicle (e.g. direct vs. fund) and the investment type (e.g. debt vs. equity).
3. Methodology ***should*** not fundamentally differentiate between listed and unlisted financing instrument.[20]
4. Methodology ***should*** acknowledge that for private assets there are fewer levers of influence with existing book, where only engagement is possible, while there are more levers of influence for new investments, where a phase-in of strict requirements may be possible.

T101. **Timeline Principles:**

5. Targets ***should*** cover direct investments before fund investments; equity investments before debt investments; and majority investments before minority investments. This sequence is put forward based on the asset owners' capacity to exercise influence.
6. Targets ***should*** cover the higher-emitting assets and sectors first.[21]
7. Alliance members ***should*** phase in targets as soon as possible, where reliable data and sufficient investment options exist.

T102. **A note on high-emitting assets to be decommissioned (i.e. "managed phase out")**

Dedicated "phase-out" strategies of high-emitting assets, aligned with no or limited overshoot 1.5°C pathways, are supported by the Alliance. In cases where Alliance members hold or buy assets that are emission intense or in hard-to-abate sectors but have a well-defined strategy to decarbonise these assets, sub-portfolio targets may be adjusted according to these additional exposures. Adjustments can thus reflect the fact that the reduction of industrial emissions of this nature may be slower than the trajectories used to set portfolio-wide targets (which are sector agnostic planetary averages). Members ***shall*** transparently explain how they will integrate such phase-out strategies in their sub-portfolio targets.

20 The Alliance believes that methodologies for all asset classes should converge; however, it is noted that there are differences between the maturity levels of listed and non-listed companies.

21 For significantly small general partners: If materiality does not apply due to limited asset class, sectors, or asset exposure, any action on mitigating climate change is appreciated by the Alliance.

T103. **A note on private assets**

For all private asset classes, the Alliance strongly urges for emission transparency through GHG reporting of the underlying assets. Without detailed emissions data, the impact of investments on climate cannot be understood or even managed. The Alliance requests towards asset managers in private markets were formulated in a Call to Action to Private Market Asset Managers (NZAOA 2022a).

T104. Where relevant, and especially in private assets, asset managers ***shall*** have been engaged throughout 2023 so as to report FY23 Scope 1, 2 and 3 (where possible) GHG emissions in 2024.

T105. **Adjustments on growth**

Where a member sets targets on absolute emissions, an adjustment for extensive variation in portfolio size (either organic or inorganic) may be necessary.

For instance:

If a portfolio grows significantly faster or slower than the average GDP over time, a target adjustment could be made. The climate models used by Alliance members to define their CO_2e reduction targets usually assume GDP growth based on World Bank data suggesting a global average growth rate of 3 per cent (see table to the right).

If a portfolio might vary significantly in size due to its structure, members may express footprint targets per million (volume) invested. In this way, members would both encompass inflows in their target setting scope and neutralise the bias resulting from capital flows.

Region	Growth rate
OECD North America	2.1%
OECD Pacific	1.3%
OECD Europe	1.5%
Eastern Europe/Eurasia	2.5%
Middle East	3.4%
Latin America	2.8%
China	4.2%
Africa	4.4%
India	5.6%
Non-OECD Asia	3.6%
Global	**3.2%**

T106. **Adjustments on currency changes**

For investment portfolios split across different currencies, intra year foreign exchange movements may need to be adjusted in case of material currency volatility. This adjustment may be particularly relevant for carbon intensity targets.

T107. **Adjustments on merger and acquisitions activities**

Merger and Acquisition (M&A) transactions may require an adjustment to sub-portfolio targets. For the adjustment, a linear reduction between base year and target year is assumed. The emissions of the acquired (or sold) portfolio are measured at transaction time and the adjusted portfolio will then receive a new target. It is the responsibility of each Alliance member to decide whether an M&A transaction is large enough to justify a new target and to properly document the adjustment if a new target is set.

	Company A	Company B	Company A+B
Base date	31.12.2019	30.06.2021	
Target date	31.12.2024	31.12.2024	31.12.2024
Share in target timeline	100%	70%	
Reduction	-25%	-18%	
CO_2 emissions @base date	100	35	
Target CO_2 emissions	75	28.9	103.9

T108. For example, Company A sets targets with base date 31.12.2019 and absolute reduction of -25 per cent in five years (target date: 31.12.2024), reducing emissions from the (assumed, normalized) 100 baseline figure to 75. Company A acquires Company B on 30.06.2021 with assumed emissions of 35 at that date. As the remaining time until the target date (31.12.2024) is 70 per cent of the initial five-year period, Company B needs to reduce emissions by 18 per cent from 30.06.2012 to 31.12.2024 and the new joint emissions target is 103.9. The calculation adjustment is detailed in the table above.

T109. Matching portfolio information with emissions data

The following considerations may be useful to Alliance members when selecting their emission data matching and reporting principles:

T110. Option 1

Matching reporting year financial data (e.g. 2020) with corresponding CO_2e data (e.g. 2020, as available in the second half of 2021):

Advantages

- Data reflects an adequate snapshot of financed emissions at a certain point in time.

Drawbacks

- Portfolio decisions need to be made before data becomes available. Most data providers collect data from CDP, which only releases data during Q3. Accordingly, data tends to only become available for >80 per cent of a portfolio in Q4. This causes reporting lags of at least one year and requires additional ex-post data matching for the purpose of reporting.

T111. Option 2

Matching reporting year financial data (e.g. 2020) with most recent available CO_2e data (e.g. latest available data at year-end 2020):

Advantages

- Latest available data, although backward looking, can be fed into portfolio management systems as soon as it becomes available.

- Portfolio decisions are made on latest available data.

- Data systems can run in sync with standard data processes, such as system freezes, audit schedules, etc.
- Reporting can be adjusted to annual/sustainability report cycles without artificial time lags.
- Some regulation (such as upcoming EU CSRD or FrenchArt29) requires up-to-date reporting, which is only possible by matching year-end financial data with most-recent emission data.

Drawbacks

- Financed emissions systematically combine current portfolio holdings with reported emissions that are one–two years old by the time they become available, creating a time lag from emissions data to portfolio data.

T112. Alliance members ***should*** choose a reporting principle before calculating the target baseline and refer to the methodology chosen in target reporting. Additionally, the approach ***should*** be applied in subsequent time periods. Any adjustments ***shall*** be clearly communicated.

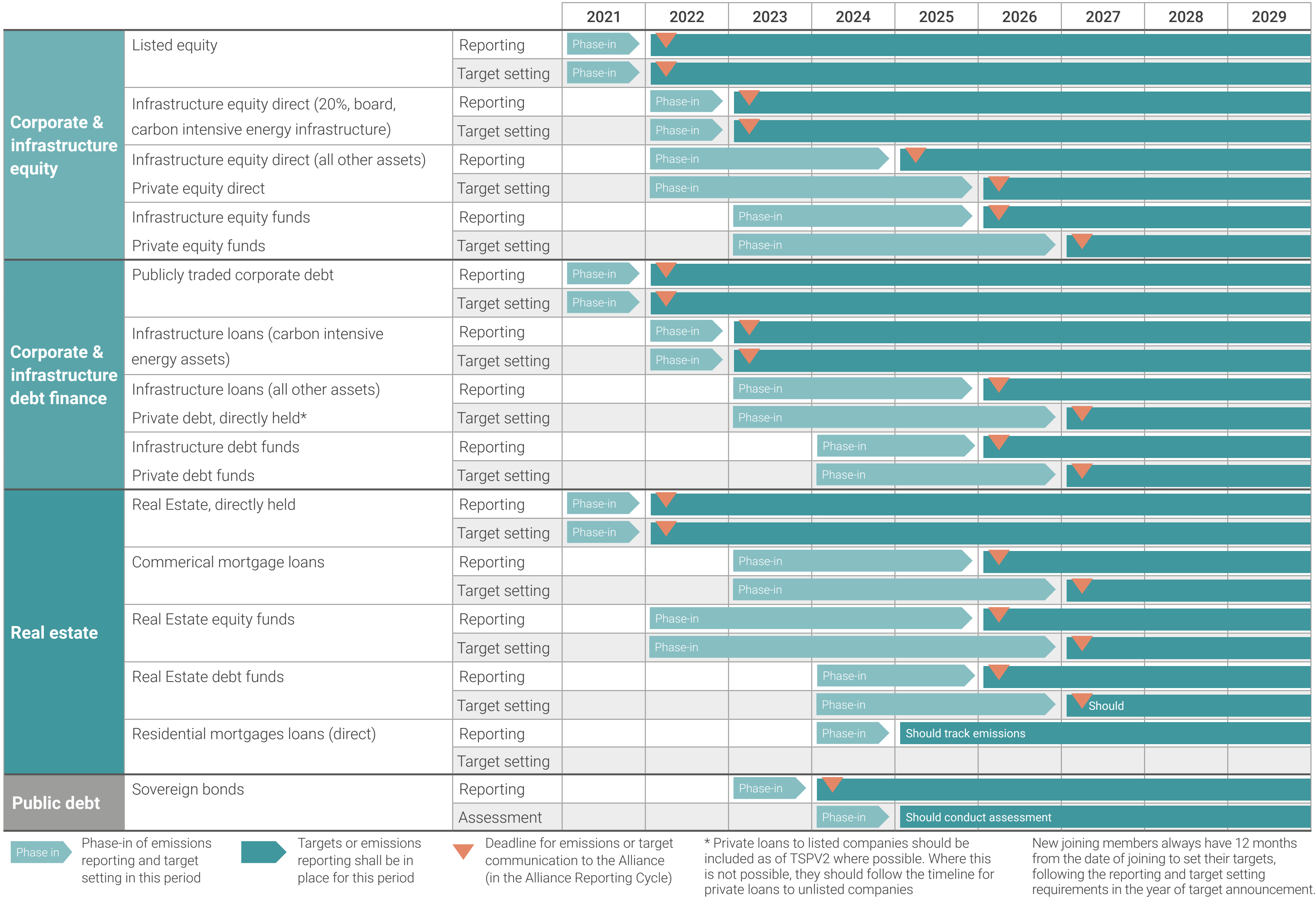
7.2 Phase-in schedule for all asset classes

T113. Figure IV shows the phase-in schedule and deadlines for target setting for all asset classes covered by the protocol, based on the principles described in the section above. All details for each asset class can be found in asset class tables in Section . Following the below schedule, Alliance members ***should*** begin immediate phase-in of targets on best or commercially viable effort basis wherever a methodology exists, irrespective of asset class.

T114. **A note on "credible frameworks" for funds**

In the following asset class tables, the Alliance defines methodologies for members to apply for setting asset class targets. For certain asset classes, particularly funds, the Alliance criteria is for members to 'predominantly commit to new funds which apply a credible net-zero framework'. The Alliance provides criteria for credible asset manager fund level commitments in its Call to Action to Private Market Asset Managers (NZAOA 2022a), such requirements are embodied in several frame-work(s) recognized by the Asset Managers/private markets.[22]

22 Such frameworks include but are not limited to the Alliance's own Target-Setting Protocol methodologies (such as those for direct assets), the SBTi, or the Net Zero Investment Framework.



T115. **Figure IV:** Phase-in schedule for each asset classes under sub-portfolio targets

7.3 Target setting and reporting for all asset classes

T116. **Listed equity and publicly traded corporate debt**

Listed equity **Publicly traded corporate debt**	
Definition	A corporation is a legal entity that is separate and distinct from its owners. A listed corporation refers to any corporation whose shares are listed on a stock exchange. Publicly traded corporate debt refers to bonds issued by these corporations or to bonds admissible to standard corporate bonds indices. Debt or equity investments are all forms of loans, bonds or shares which provide financing to these corporations.
Scope of emission	▪ Scope 1: ***shall*** be in scope for reporting & target setting ▪ Scope 2: ***shall*** be in scope for reporting & target setting ▪ Scope 3: ***should*** track, but not yet set, targets on Scope 3 emissions
Accounting approach	**Calculation of financed GHG emissions:** **Absolute approach:**[23] Financed emissions with metric tCO_2e/annum Weighted by Enterprise Value or EVIC: $\sum\left(\frac{Current\ value\ of\ investment\ of\ issuer}{Enterprise\ Value\ or\ EVIC\ of\ issuer} \times Emissions\ of\ issuer\right)$ Weighted by Market Cap (for equity only): $\sum\left(\frac{Current\ value\ of\ investment\ of\ issuer}{Market\ capitalization\ of\ issuer} \times Emissions\ of\ issuer\right)$ **Intensity approach:**[24] Financed emissions intensity with metric tCO_2e/annum/value invested, and $kgCO_2e$/annum/revenue Carbon Intensity by Enterprise Value or EVIC: $\frac{\left[\sum\left(\frac{Current\ value\ of\ investment\ (issuer)}{Enterprise\ Value\ or\ EVIC\ of\ issuer} \times Emissions\ of\ issuer\right)\right]}{\sum Current\ value\ of\ investment\ in\ issuer}$ Carbon Intensity by Revenues: $\frac{\left[\sum\left(\frac{Current\ value\ of\ investment\ (issuer)}{Annual\ revenue\ of\ issuer} \times Emissions\ of\ issuer\right)\right]}{\sum Current\ value\ of\ investment\ in\ issuer}$ For details see Background Document, B72–B74.
Key metrics	▪ Absolute: tCO_2(e) or ▪ Intensity: tCO_2(e)/Mn USD (EVIC), tCO_2(e)/Mn USD (Revenue).

23 Other initiatives that are utilising similar metrics include TCFD and PCAF.
24 Other initiatives that are utilising similar metrics include the European Union Financial Supervisory Authorities (EBA, ESMA and EIOPA), PCAF, and TCFD.

Data availability and sources	Data are readily available from commercial providers and relatively reliable for these asset classes. Data coverage is still increasing for Scope 3 emissions.
Scientific reduction pathway or benchmark sources	Net-zero requirements ***shall*** be formulated using IPCC's no or limited overshoot global scenarios for 1.5°C. The SR1.5 and AR6 provide ranges of 22–32 per cent for 2020–2025 and 40–60 per cent for 2020–2030 respectively.
Target setting methodology	Set targets on the basis of absolute carbon emissions or emission intensity.
Target setting	Members ***shall*** publish decarbonisation targets within 12 months of joining the Alliance.
Reporting to the Alliance	Emissions & target ***shall*** be reported in the next applicable Alliance Reporting Cycle after joining (see *Table IV: Alliance Reporting Cycle for reporting first targets to the Alliance*)
Reporting Metrics to the Alliance	▪ Members ***shall*** report*:* Base year, target year, metric used, target reduction (%), Scope 3 (yes/no), annual financed GHG emissions since base year, GHG emission data coverage (%), AuM, AuM covered by sub-portfolio target (possible to set targets on combined asset classes), and carbon intensity (if applicable) ▪ Members ***should*** report: Scope 3

T117. ## Private equity and debt

Private Equity: ▪ **Private Equity Direct** ▪ **Private Equity Funds** **Private Debt:** ▪ **Private Debt, held directly** ▪ **Private Debt Funds**	
Definition	A corporation is a legal entity that is separate and distinct from its owners. All corporate financing instruments not covered by the Listed Equity and publicly traded corporate debt table T116.
Scope of emission	▪ Scope 1: ***shall*** be in scope for reporting & target setting ▪ Scope 2: ***shall*** be in scope for reporting & target setting ▪ Scope 3: ***should*** track, but not yet set targets on

Accounting approach	**Calculation of financed GHG emissions:**[25] **Absolute approach:**[26] Financed emissions with metric tCO_2e/annum Weighted by Enterprise Value or EVIC: $\sum\left(\frac{Current\ value\ of\ investment\ of\ issuer}{Enterprise\ Value\ or\ EVIC\ of\ issuer} \times Emissions\ of\ issuer\right)$ Weighted by Market Cap: $\sum\left(\frac{Current\ value\ of\ investment\ of\ issuer}{Market\ capitalization\ of\ issuer} \times Emissions\ of\ issuer\right)$ **Intensity approach:**[27] Financed emissions intensity with metric tCO_2e/annum/value invested, and tCO_2e/annum/revenue Carbon Intensity by Enterprise Value or EVIC: $\frac{\left[\Sigma\left(\frac{Current\ value\ of\ investment\ (issuer)}{Enterprise\ Value\ or\ EVIC\ of\ issuer} \times Emissions\ of\ issuer\right)\right]}{\sum Current\ value\ of\ investment\ in\ issuer}$ Carbon Intensity by Revenues: $\frac{\left[\Sigma\left(\frac{Current\ value\ of\ investment\ (issuer)}{Annual\ revenue\ of\ issuer} \times Emissions\ of\ issuer\right)\right]}{\sum Current\ value\ of\ investment\ in\ issuer}$
Key metric	▪ Absolute: tCO_2(e) or ▪ Intensity: tCO_2(e)/Mn USD (EVIC), tCO_2(e)/Mn USD (Revenue)
Data availability and sources	There is limited data availability; the Alliance identifies the paramount need for greater emissions transparency (through GHG reporting of the underlying assets) for all private asset classes. Without detailed emissions data, investments' climate impact cannot be properly understood nor managed. The Alliance encourages members to join initiatives that call for data disclosure for private assets, such as the ILPA ESG Data Convergence Initiative.
Scientific reduction pathway or benchmark sources	Net-zero requirements ***shall*** be formulated using IPCC's no or limited overshoot global scenarios for 1.5°C. The SR1.5 and AR6 provide ranges of 22–32 per cent for 2020–2025 and 40–60 per cent for 2020–2030 respectively.
Target setting methodology	▪ **Private Equity Direct:** Set targets on the basis of absolute carbon emissions or emission intensity. ▪ **Private Debt, held directly:** Engagement with borrowers and commitment predominantly to loans with credible net zero-aligned transition plans. ▪ **Private Equity Funds and Private Debt Funds:** Engagement with asset managers, and commitment predominantly to funds with a credible net-zero framework.

25 The market value of equity component of enterprise value or EVIC for private assets should be understood as latest (and best) available market value of equity or proxy thereof. If no valuation at all is available the latest available balance sheet value can be used as "last resort".
26 Other initiatives that are utilising similar metrics include TCFD and PCAF.
27 Other initiatives that are utilising similar metrics include the European Union Financial Supervisory Authorities (EBA, ESMA and EIOPA), PCAF, and TCFD.

Target setting	**Private Equity Direct:**
	▪ Members ***shall*** engage: Not Applicable
	▪ Members ***shall*** publish decarbonisation targets by YE2025
	Private Debt, held directly:
	▪ Members ***shall*** engage borrowers within 12 months of joining the Alliance towards
	  ▫ reporting Scope 1 and 2 GHG emissions data (Scope 3 where possible)
	  ▫ setting intermediate net-zero targets by YE2025
	▪ By YE2026 members ***shall*** publish decarbonisation targets for **new** investments on asset class/sub-portfolio level.
	▪ By YE2026 members ***should*** predominantly commit to new investments where the underlying corporations have credible net zero-aligned transition plan.[28]
	Private Equity Funds:
	▪ Members ***shall*** engage asset managers within 12 months of joining the Alliance towards
	  ▫ reporting Scope 1 and 2 GHG emissions data (Scope 3 where possible)
	  ▫ setting intermediate net-zero targets by YE2025
	▪ By YE2026 members ***shall*** publish decarbonisation targets for new investments on asset class/sub-portfolio level.
	▪ From YE2026 members ***should*** predominantly commit to new funds which apply a credible net-zero framework.
	Private Debt Funds:
	▪ Members ***shall*** engage asset managers within 12 months of joining the Alliance towards
	  ▫ reporting Scope 1 and 2 GHG emissions data (Scope 3 where possible)
	  ▫ setting intermediate net-zero targets by YE2026
	▪ From YE2026, members ***should*** predominantly commit to new funds which apply a credible net-zero framework.

28 Guidance: IIGCC Investor Expectations of Corporate Transition Plans: From A to Zero here

Reporting to the Alliance	**Private Equity Direct:** ▪ Emissions ***shall*** be reported annually, starting from 2025 Alliance Reporting Cycle ▪ Target ***shall*** be reported in 2026 Alliance Reporting Cycle **Private Debt, held directly:** ▪ Emissions ***shall*** be reported annually, starting from 2026 Alliance Reporting Cycle ▪ Target ***shall*** be reported in 2027 Alliance Reporting Cycle **Private Equity Funds:** ▪ Emissions ***shall*** be reported annually, starting from 2026 Alliance Reporting Cycle ▪ Target ***should*** be reported in 2027 Alliance Reporting Cycle **Private Debt Funds:** ▪ Emissions ***shall*** be reported annually, starting from 2026 Alliance Reporting Cycle ▪ Target ***should*** be reported in 2027 Alliance Reporting Cycle
Reporting metrics to the Alliance	▪ Members ***shall*** report: Base year, target year, metric used, target reduction (%), Scope 3 (yes/no), yearly financed GHG emissions since base year, GHG emission data coverage (%), AuM, AuM covered by sub-portfolio target, (possible to set targets on combined asset classes), carbon intensity (if applicable) ▪ Members ***should*** report: Scope 3

T118.

Infrastructure

Infrastructure (private): ▪ Equity Direct ▪ Equity Funds ▪ Loans ▪ Debt Funds	
Definition	An infrastructure investment is defined as an investment in an entity, project or corporate which derives the substantial majority (i.e., more than two thirds) of its revenues from owning, financing, developing, or operating infrastructure assets. Infrastructure assets include physical assets, structures, facilities, systems, and networks that often provide or support essential public services.[29] For various infrastructure asset class types, see Background Document, B75. Greenfield Definition: Construction of new assets or re-constructing an existing asset to a material extent. Brownfield Definition: All other projects which are not greenfield.
Scope of emission	▪ Scope 1: ***shall*** be in scope for reporting & target setting ▪ Scope 2: ***shall*** be in scope for reporting & target setting ▪ Scope 3: ***should*** be in scope for targets & reporting

29 Definition following Solvency II amending Delegated Regulation (EU) 2015/35 issued by the European Commission on 8 June 2017

Accounting approach	**Calculation of financed GHG emissions:** **Absolute approach:** Financed emissions with metric tCO_2e/annum $Financed\ emisions = \sum\left(\frac{Outstanding\ amount}{Total\ equity + debt} \times \frac{Infrastructure\ asset}{annual\ emissions}\right)$ Aligned with the Partnership for Carbon Accounting Financials (PCAF). For infrastructure companies the formula is in line with the corporates approach. For details see Background Document, B76–B81.
Key metrics	▪ Absolute: tCO_2(e) or ▪ Intensity: tCO_2(e)/Mn USD (EVIC), tCO_2(e)/Mn USD (Revenue).
Data availability and sources	For assets where financial data are unavailable and owned emissions cannot be calculated, estimations are accepted based on region- and sector-specific average financial data and the outstanding amount. PCAF provides direction on how to estimate annual emissions in the face of data availability issues.
Scientific reduction pathway or benchmark sources	Alliance members ***shall*** use sector-specific pathways (where applicable), or the IPCC's no or limited overshoot 1.5°C global range of 40–60 per cent for 2020–2030. This holds especially for investments in coal, oil, and gas: **For coal** ▪ Alliance members ***shall*** follow the Alliance's Position Paper on Thermal Coal. **For oil** ▪ Members ***shall*** not make new investments in assets that are not aligned with science-based or government-issued regional/national 1.5°C pathways. Members ***shall*** especially not finance upstream greenfield projects beyond those already committed by the end of 2021. ▪ Alliance members ***shall*** follow the Alliance Position Paper on the Oil and Gas Sector. **For gas** ▪ Members ***shall*** not make new investments in assets that are not aligned with science-based or government-issued regional/national 1.5°C pathways. ▪ Alliance members ***shall*** follow the Alliance Position Paper on the Oil and Gas Sector.
Target setting methodology	Set targets on the basis of absolute carbon emissions/emission intensity. Engagement with asset managers and commitment to funds with a credible net-zero framework.

<table>
<tr>
<td>Target setting</td>
<td>
Infrastructure equity direct, where one of the three criteria holds:

Where a member owns more than 20 per cent, or
Where a member has a seat on the board[30], or
the investment qualifies as carbon intensive energy infrastructure (for definition, see Background Document, B75)

Members shall publish targets within 12 months of joining the Alliance

Infrastructure Equity Direct (all other assets)

Members shall publish targets by YE2025

Infrastructure Equity Funds

Members shall engage asset managers within 12 months of joining the Alliance towards

reporting Scope 1 and 2 GHG emissions data (Scope 3 where possible)
setting targets by YE2025

By YE2026 members shall publish decarbonisation targets for new funds on asset class/sub-portfolio level.
By YE2026 members should predominantly commit to new funds which apply a credible net-zero framework.

Infrastructure Loans (carbon intensive energy assets) (for definition, see Background Document, B75)

Members shall engage borrower within 12 months of joining the Alliance towards

reporting Scope 1 and 2 GHG emissions data (Scope 3 where possible)
setting targets by YE2025

Members Shall publish decarbonisation targets within 12 months of joining the Alliance

Infrastructure Loans (all other assets)

Members shall engage borrower within 12 months of joining the Alliance towards

reporting Scope 1 and 2 GHG emissions data (Scope 3 where possible)
setting targets by YE2025

Members shall publish decarbonisation targets for new loans by YE2026.

Infrastructure Debt Funds

Members shall engage asset manager within 12 months of joining the Alliance towards

reporting Scope 1 and 2 GHG emissions data (Scope 3 where possible)
setting intermediate net-zero targets by YE2026

By YE2026 members shall publish decarbonisation targets for new funds on asset class/sub-portfolio level.
From YE2026 members should predominantly commit to new funds which apply a credible net-zero framework.

</td>
</tr>
</table>

30 This follows international accounting standards where significant influence is assumed; see, IAS 28.5. If an entity holds 20 per cent or more of the voting power of the investee, it is presumed that the entity has significant influence. This does not include seats on a fund's board where the fund also invests in infrastructure. See, PCAF 2020 p73. Table 5.6, options 3b and 3c.

Reporting to the Alliance	**Infrastructure Equity Direct, where one of the three criteria holds:** ▫ Where a member owns more than 20 per cent, or ▫ Where a member has a seat on the board, or ▫ the investment qualifies as carbon intensive energy infrastructure ▪ Emissions & target ***shall*** be reported in next applicable Alliance Reporting Cycle after joining (see *Table IV*) **Infrastructure Equity Direct (all other assets)** ▪ Emissions ***shall*** be reported annually, starting from 2025 Alliance Reporting Cycle ▪ Target ***shall*** be reported in 2026 Alliance Reporting Cycle **Infrastructure Equity Funds** ▪ Emissions ***shall*** be reported annually, starting from 2026 Alliance Reporting Cycle ▪ Target ***shall*** be reported in 2027 Alliance Reporting Cycle **Infrastructure Loans (carbon-intensive energy assets)** ▪ Emissions & target ***shall*** be reported in next applicable Alliance Reporting Cycle after joining (see *Table IV*) **Infrastructure Loans (all other assets)** ▪ Emissions ***shall*** be reported annually, starting from 2026 Alliance Reporting Cycle ▪ Target ***shall*** be reported in 2027 Alliance Reporting Cycle **Infrastructure Debt Funds** ▪ Emissions ***shall*** be reported annually, starting from 2026 Alliance Reporting Cycle ▪ Target ***shall*** be reported in 2027 Alliance Reporting Cycle
Reporting metrics to the Alliance	▪ Members ***shall*** report: base year, target year, metric, target reduction (%), Scope 3 (yes/no), yearly financed GHG emissions since base year, GHG emission data coverage (%), AuM, AuM covered by sub-portfolio target, carbon intensity (if applicable) ▪ Members ***should*** report: Scope 3

T119. Real estate

T120. Operational carbon

Members ***should*** use the following components as to guide their efforts to transition their real estate portfolios to net zero:

For operational carbon;

- the building ***shall*** be highly energy efficient (taking into account the building type and geographic location), and
- all remaining energy required ***shall*** come from onsite and/or offsite renewable sources, or ***shall*** be connected to an energy supply that will be fully decarbonised by 2050, at the latest.

For detailed information, see Background Document, B82.

T121. **Location vs market-based method**

With regard to the use of either a location-based or a market-based method[31] for Scope 2 emissions, members ***should*** use the location-based method. Regardless of the method applied, when carbon emissions data according to both methods are available, members ***shall*** use one method consistently across the portfolio and disclose which method is used.

Real Estate: ▪ **Directly held**	
Definition	Refers to fully owned buildings (i.e. buildings that are held to 100 per cent ownership by the member) and buildings that are partly owned through a joint-venture, joint operation, or are in a joint ownership.[32] Both residential and commercial buildings are included in the scope. Residential buildings refer to private dwellings such as apartments and houses. Commercial buildings refer to properties related to trade, finance, retail, public administration, health, food and lodging, education, and other commercial services.
Scope of emission	Targets ***shall*** be set on a whole-building in-use operational emissions (i.e. energy-related emissions from both base building/ common spaces and tenant spaces ***shall*** be included in target setting and reporting).
Accounting approach	Members ***shall*** align their carbon accounting of financed emissions with recommendations outlined in the Accounting and Reporting of GHG Emissions from Real Estate Operations—Technical Guidance for the Financial Industry V1.0, developed by PCAF, CRREM, and GRESB. Members ***should*** use the operational control approach. For detailed information, see Background Document, B83–B87.
Key metrics	▪ Absolute: kgCO_2(e)/annum or tCO_2(e)/annum ▪ Intensity: kgCO2(e)/m^2/annum

31 **Location-based method:** Scope 2 emissions are based on the average emissions intensity of the grids on which the energy consumption occurs (national or regional boundaries). **Market-based method:** Scope 2 emissions are based on emissions associated with the generators from which a company has purposefully chosen.

32 Joint venture partners with a stake of 25 per cent or higher are considered to have significant influence over operational initiatives and shall be defined as directly held real estate.

Data availability and sources	Reported asset-level data are preferred. When these data are unavailable, two different options exist for members in their target setting: ▪ Members aggregate data and set a target only for those assets in the portfolio where reported and reliable data can be retrieved. Members then ***shall*** disclose the share of the total portfolio that is covered by the target and establish a time-bound plan to retrieve reported and reliable data for those assets not covered by the target. ▪ Members aggregate data and set targets for the whole portfolio and use estimations for those assets where reported and reliable data cannot be retrieved. Members then ***shall*** disclose the proportion of assets where estimated data are used, ***should*** give a general description of the methodology used, and ***shall*** establish a time-bound plan to retrieve reported and reliable data for those assets where estimations are used.
Scientific reduction pathway or benchmark sources	Members ***should*** strive to use pathways specifically designed for the real estate sector like the CRREM Global Pathways. If other pathways are used, they ***shall*** meet the criteria in being aligned with IPCC's no or limited overshoot 1.5°C global range of 40–60 per cent for 2020–2030. Members ***shall*** disclose which benchmark is being used.
Target setting methodology	Set target on the basis of absolute carbon emissions/emission intensity. For detailed information, see Background Document, B88–B92.
Target setting	Members ***shall*** publish decarbonisation targets within of 12 months of joining the Alliance
Reporting to the Alliance	▪ Emissions & target ***shall*** be reported in next applicable Alliance Reporting Cycle after joining (see Table IV)
Reporting metrics to the Alliance	▪ Members ***shall*** report: base year, target year, metric, target reduction (%), yearly financed GHG emissions since base year, GHG emission data coverage (%), AuM, AuM covered by sub-portfolio target, carbon intensities (if applicable), share of portfolio covered by emission data (%), share of portfolio where estimated data are used (%)

T122. ## Commercial mortgage loans[33]

Commercial mortgage loans (CML)	
Definition	A commercial mortgage is a type of loan used for the acquisition, refinancing, or refurbishment of commercial real estate collateralised by a mortgage, land charge mortgage, or hypothecs. Commercial real estate are buildings fully or dominantly owned by the borrower or portfolios of commercial assets where all buildings within the portfolio are fully or dominantly owned by the borrower. In the case of mixed use (commercial and residential), the building ***should*** be included if the floor area is in majority (over 50 per cent) commercially used.
Scope of emission	Targets ***shall*** be set on a whole-building in-use operational emissions (i.e. energy-related emissions from both base building/common spaces and tenant spaces), based on the proportional share of emissions financed through mortgage loan or the Loan-to-Value (LTV ratio). This is the outstanding loan amount divided by the value of building. When the property value at origination is not feasible to obtain, lenders may use the latest property value available and fix this value for the remaining loan duration. Alternatively, they may use the mortgage value at origination. The LTV-ratio can be at maximum 100 per cent.

33 Previously known as Commercial Real Estate Loans (CREL)

Accounting approach	Calculation of financed GHG emissions for mortgages: **Absolute approach:**[34] Financed emissions with metric $kgCO_2e$/annum $$\sum_{\text{Mortgages}} \left[(Building\ Emissions) \times \left(\frac{Outstanding\ Loan}{Value\ of\ property\ at\ origination} \right) \right]$$ **Intensity approach:**[35] Financed emissions intensity with metric $kgCO_2e/m^2$/annum $$\frac{\sum_{\text{Mortgages}} \left[(Building\ Emissions) \times \left(\frac{Outstanding\ Loan}{Value\ of\ property\ at\ origination} \right) \right]}{\sum_{\text{Mortgages}} \left[(Floor\ area\ in\ m^2) \times \left(\frac{Outstanding\ Loan}{Value\ of\ property\ at\ origination} \right) \right]}$$ Following PCAF, the approach assumes that the commercial property owner also takes ownership of the building's emissions. In some cases, a loan might be structured into different risk stakes (senior tranche and one or more subordinated tranches). In this case the outstanding loan in the formula above does only contain the loan share of the lender. The LTV ratio applied for the calculation of the financed emissions may differ to the internal risk-oriented LTV view. This ensures that only the emissions of your loan tranche will be included. In some cases, such as subsequent loan increases, the market value of the property changes and ***should*** be adjusted in the formula. In these cases, the relevant market value differs from the one at the time of loan origination, thus the market value at the time of the last increase ***should*** be taken. For detailed information, see Background Document, B83–B87.
Key metrics	▪ Absolute: $kgCO_2(e)$/annum or $tCO_2(e)$/annum ▪ Intensity: $kgCO_2(e)/m^2$/annum

34 Under the absolute approach, the financed emissions of the entire debt portfolio correspond to the sum of the LTV-weighted building emissions of each corresponding loans.

35 Under the relative approach, the financed emissions per m² or sf² of the entire debt portfolio correspond to the sum of the LTV-weighted building emissions of each corresponding financing in relation to the sum of the LTV-weighted buildings floor area of each corresponding loans.

Data availability and sources	Carbon Risk Real Estate Monitor (CRREM), among others. When data are not available, two different options exist for members in their target setting: ▪ Members aggregate data and set a target only for those assets in the portfolio where reported and reliable data can be retrieved. Members then ***shall*** disclose the share of the total portfolio that is covered by the target and establish a time-bound plan to retrieve reported and reliable data for those assets not covered by the target. ▪ Members aggregate data and set targets for the whole portfolio and use estimations for those assets where reported and reliable data cannot be retrieved. Members then ***shall*** disclose the proportion of assets where estimated data are used, ***should*** give a general description of the methodology used, and ***shall*** establish a time-bound plan to retrieve reported and reliable data for those assets where estimations are used.
Scientific reduction pathway or benchmark sources	Members ***should*** strive to use pathways specifically designed for the real estate sector like the CRREM Global Pathways. If other pathways are used, they ***shall*** meet the criteria in being aligned with IPCC's no or limited overshoot 1.5°C global range of 40% to 60% for 2020–2030. Members ***shall*** disclose which benchmark is being used.
Target setting methodology	Set targets on the basis of absolute carbon emissions/emission intensity in line with CRREM Global Pathways (in its given regional/sector split). Focus of engagement with the borrower (for the existing loans): ▪ Transparency of the borrower (asset owner) regarding the consumption data of the building. This information is needed as part of the calculation of the real estate debt portfolio emissions. Emissions from real data significantly improve the quality of the data basis compared to the pure estimation basis. ▪ Focusing on levers such as engagement or borrower commitment that could be particularly important at a stage of refinancing discussions is highly recommended.
Target setting	Members ***should*** engage borrowers within 12 months of joining the Alliance towards ▪ Reporting Scope 1 and 2 GHG emissions data (Scope 3 where possible) ▪ Setting intermediate net-zero targets by YE2025 Members ***shall*** publish target for **new** loans by YE2026.
Reporting to the Alliance	▪ Share of portfolio covered by emissions data on new loans ***shall*** be reported annually, starting in 2024 Alliance Reporting Cycle ▪ Emissions ***shall*** be reported annually, starting from 2026 Alliance Reporting Cycle ▪ Target ***shall*** be reported in 2027 Alliance Reporting Cycle

Reporting metrics to the Alliance	▪ Members ***shall*** report: base year, target year, metric, target reduction (%), yearly financed GHG emissions since base year, GHG emission data coverage (%), AuM, AuM covered by sub-portfolio target, share of portfolio covered by emission data (%), and share of portfolio where estimated data are used (%)

T123. **Real estate equity and debt funds**

Real Estate ▪ **Equity Funds** ▪ **Debt Funds**	
Definition	Real estate assets[36] (e.g. buildings) held and pooled in a private collective investment scheme. Real Estate Investment Trusts (REITs) and listed funds investing in REITs are excluded.[37] Real Estate Debt Funds are real estate loans issued by a lender for a commercial property or properties with mortgage-linked securities (e.g. direct mortgages, secured bonds, credit linked notes, tranches in commercial mortgage-backed securities and mortgage-backed securities) that are pooled in a fund. All listed funds investing in real estate loan structures are excluded.
Scope of emission	Targets ***shall*** be set on a whole-building in-use basis and ***should*** apply an operational control emissions approach (i.e. energy-related emissions from both base building/common spaces and tenant spaces) on a proportional share basis (see Accounting approach, below).

36 Residential buildings: refers to private dwellings such as apartments and houses. Commercial buildings: includes properties related to trade, finance, retail, public administration, health, food and lodging, education, logistics, and other commercial services.

37 REITs and listed funds investing in REITs are covered in the Listed Equity section.

Accounting approach	$$\sum_{b=1}^{n}\left[(Building\ Emissions_b) \times \left(\frac{Outstanding\ Amount_b}{Value\ of\ property\ at\ origination_b}\right)\right]$$ Following PCAF. **Equity Funds:** This is based on the proportional share of emissions invested, calculated using the investment amount divided by the value of property at origination (percentage of equity ownership). **Debt Funds:** This is based on the proportional share of emissions financed through mortgage loans or the Loan-to-Value (LTV) ratio, calculated using the outstanding mortgage loan divided by the property value at origination. When the property value at origination is not feasible to obtain, asset managers or lenders may use the latest property value available and fix this value for the remaining loan duration. For debt funds, they may use the mortgage value at origination or the LTV ratio equals to 100 per cent. For detailed information, see Background Document, B83–B87.
Key metrics	▪ Absolute: $kgCO_2(e)$/annum or $tCO_2(e)$/annum ▪ Intensity: $kgCO_2(e)/m^2$/annum
Data availability and sources	Carbon Risk Real Estate Monitor (CRREM), among others. When this information is not available, two different options exist for members in their target setting. ▪ Members aggregate data and set a target only for those assets in the portfolio where reported and reliable data can be retrieved. Members then ***shall*** disclose the share of the total portfolio that is covered by the target and establish a time-bound plan to retrieve reported and reliable data for those assets not covered by the target. ▪ Members aggregate data and set targets for the whole portfolio and use estimations for those assets where reported and reliable data cannot be retrieved. Members then ***shall*** disclose the proportion of assets where estimated data are used, ***should*** give a general description of the methodology used, and ***shall*** establish a time-bound plan to retrieve reported and reliable data for those assets where estimations are used.
Scientific reduction pathway or benchmark sources	Members ***should*** strive to use pathways specifically designed for the real estate sector, such as the CRREM Global Pathways. If other pathways are used, they ***shall*** meet the criteria in being aligned with IPCC's no or limited overshoot 1.5°C global range of 40–60 per cent for 2020–2030. Members ***shall*** disclose which benchmark is being used.
Target setting methodology	Engagement with Asset Managers and borrowers, and commitment to funds with credible net-zero framework.

Target setting	**Real Estate Equity Funds:**
	▪ Members ***shall*** engage Asset Managers within 12 months of joining the Alliance towards
	  ▫ Reporting Scope 1 and 2 GHG emissions data (Scope 3 where possible)
	  ▫ Setting intermediate net-zero targets by YE2025
	▪ By YE2026, members ***shall*** publish decarbonisation targets for new funds at asset-class/sub-portfolio level.
	▪ From YE2026, members ***should*** predominantly commit to new funds that apply a credible net-zero framework.
	
	Real Estate Debt Funds:
	▪ Members ***should*** engage borrowers within 12 months of joining the Alliance towards:
	  ▫ reporting Scope 1 and 2 GHG emissions data (Scope 3 where possible)
	  ▫ setting intermediate net-zero targets by YE2025
	▪ By YE2026, members ***should*** publish decarbonisation targets for new funds at asset class/sub-portfolio.
	▪ From YE2026 members ***should*** predominantly commit to new funds which apply a credible net-zero framework

Reporting to the Alliance	**Equity Funds:** ▪ Emissions ***shall*** be reported annually, starting from 2026 Alliance Reporting Cycle ▪ The target ***shall*** be reported in 2027 Alliance Reporting Cycle **Debt Funds:** ▪ Emissions ***shall*** be reported annually, starting from 2026 Alliance Reporting Cycle ▪ The target ***should*** be reported in 2027 Alliance Reporting Cycle
Reporting metrics to the Alliance	▪ Members ***shall*** report: base year, target year, metric used, target reduction (%), Scope 3 (yes/no), yearly financed GHG emissions since base year, GHG emission coverage (%), AuM, AuM covered by sub-portfolio target, carbon intensity (if applicable) ▪ Members ***shall*** report: Scope 3

T124.

Residential mortgages

Real Estate: ▪ Residential mortgages	
Definition	Mortgage finance includes loans granted by a lender for residential occupancy and secured by a mortgage on the underlying property or properties. Residential properties or portfolios of residential properties are fully owned by the borrower. Alternative living types are included. Reverse mortgages are excluded.[38] Members decide if multi-family investments are considered Commercial Mortgages or Residential Mortgages.
Scope of emission	If targets are set, they ***shall*** be set on a whole-building, in-use approach where feasible, based on the proportional share of emissions financed through mortgage loan or the LTV ratio. This is the outstanding loan amount divided by the value of building at origination. When the property value at origination cannot be obtained, lenders may use the latest property value available and fix this value for the remaining loan duration. Alternatively, they may use the mortgage value at origination. The LTV ratio can be at maximum 100 per cent.
Accounting approach	**Absolute approach:** Financed emissions with metric $kgCO_2e$/annum $$\sum_{\text{Mortgages}} \left[(Building\ Emissions) \times \left(\frac{Outstanding\ Loan}{Value\ of\ property\ at\ origination}\right)\right]$$ **Intensity approach:** Financed emissions intensity with metric $kgCO_2e/m^2$/annum $$\frac{\sum_{\text{Mortgages}} \left[(Building\ Emissions) \times \left(\frac{Outstanding\ Loan}{Value\ of\ property\ at\ origination}\right)\right]}{\sum_{\text{Mortgages}} \left[(Floor\ area\ in\ m^2) \times \left(\frac{Outstanding\ Loan}{Value\ of\ property\ at\ origination}\right)\right]}$$ Following PCAF, this equation assumes that the residential property owner also takes ownership of the building's emissions.
Key metrics	▪ Absolute: $kgCO_2(e)$/annum or $tCO_2(e)$/annum ▪ Intensity: $kgCO_2(e)/m^2$/annum

38 Reverse mortgages, home equity loan, and home equity line of credits are considered general consumer loans where use of proceeds cannot be reasonably determined, as per guidance from PCAF-financed emissions.

Data availability and sources	Due to the lack of operational control, lenders are usually facing a bigger challenge of collecting the data needed. However, this should not preclude them trying to obtain data or the use of estimates or proxies. Reported asset-level data are preferred. When these data are unavailable, two different options exist for members in their target setting: ▪ Members aggregate data and set a target only for those assets in their portfolio where reported and reliable data can be retrieved. Members then ***shall*** disclose the share of the total portfolio that is covered by the target and establish a time-bound plan to retrieve reported and reliable data for those assets not covered by the target. ▪ Members aggregate data and set targets for the whole portfolio and use estimations for those assets where reported and reliable data cannot be retrieved. Members then ***shall*** disclose the proportion of assets where estimated data are used, ***should*** give a general description of the methodology used, and ***shall*** establish a time-bound plan to retrieve reported and reliable data for those assets where estimations are used.
Scientific reduction pathway or benchmark sources	Members ***should*** strive to use pathways specifically designed for the real estate sector, such as the CRREM Global Pathways. If other pathways are used, they ***shall*** meet the criteria in being aligned with IPCC's no or limited overshoot 1.5°C global range of 40–60 per cent for 2020–2030. Members ***shall*** disclose which benchmark is being used.
Target setting methodology	Under consideration
Target setting	Under consideration
Reporting to the Alliance	▪ While emission reporting is not explicitly required at present, members ***should*** track emissions internally as of YE2024
Reporting metrics to the Alliance	▪ Members ***should*** report: AuM, yearly financed GHG emissions since general base year provided, GHG emissions data coverage (%), carbon intensity, share of portfolio covered by emission data (%), and share of portfolio where estimated data are used (%)

T125.
Energy efficiency

Real Estate: ▪ Energy efficiency (only applicable to directly held Real Estate)	
Definition	**Energy efficiency** in operational buildings is the measure of a building performing its intended functions with a given amount of energy used. Higher energy efficiency directly reduces emissions through reduced energy requirements. **Energy Intensity** refers to the amount of energy used in kilowatt hour (kWh) per unit of floor area, per annum. A lower energy intensity indicates higher energy efficiency. For detailed information, see Background Document, B93.
Scope of measure	If targets are set, they ***shall*** be set on a whole-building, in-use operational control approach (i.e. energy-related emissions from base building/common spaces and from tenant spaces ***shall*** be included in target setting and reporting).
Accounting approach	**Intensity approach:** $\text{Building energy intensity} = \frac{\sum \text{Annual energy consumption (in kWh)}}{\sum \text{Floor area in } m^2}$ There are adjustments that can be made with recognised methodology to any of following factors: ▪ hours of operation or working days per week ▪ vacancy ▪ occupant density ▪ heating and cooling (weather correction) ▪ special uses Members ***should*** disclose the use of any given adjustments to the methodology, where applicable.
Key metrics	▪ Intensity: Energy intensity (kWh/m²/annum) ▪ Absolute: Energy consumption/annum (kWh/annum)
Data availability and sources	Reported asset-level data are preferred. When these data are unavailable, two different options exist for members in their target setting: ▪ Members aggregate data and set a target only for those assets in the portfolio where reported and reliable data can be retrieved. Members then ***shall*** disclose the share of the total portfolio that is covered by the target and establish a time-bound plan to retrieve reported and reliable data for those assets not covered by the target. ▪ Members aggregate data and set targets for the whole portfolio and use estimations for those assets where reported and reliable data cannot be retrieved. Members then ***shall*** disclose the proportion of assets where estimated data are used, ***should*** give a general description of the methodology used, and ***shall*** establish a time-bound plan to retrieve reported and reliable data for those assets where estimations are used.

Scientific reduction pathway or benchmark sources	Members ***should*** strive to use pathways specifically designed for the real estate sector, such as the CRREM Global Energy Pathways. If other pathways are used, they ***shall*** meet the criteria in being aligned with IPCC's no or limited overshoot 1.5°C global range of 40–60 per cent for 2020–2030. Members ***shall*** disclose which benchmark is being used.
Target setting methodology	Members ***should*** set targets on energy intensity on a whole building and operational control approach (including tenant-controlled emissions) in line with CRREM Global Energy, or other pathways or benchmark used.
Target setting	Members ***should*** set targets on energy intensity by YE2025.
Reporting to the Alliance	▪ While reporting on energy efficiency is not explicitly required at present, members ***should*** track energy efficiency data internally as of YE2024 ▪ Portfolio share that is covered by data ***should*** be reported in 2026 Alliance Reporting Cycle ▪ Energy Efficiency targets ***should*** be reported in 2026 Alliance Reporting Cycle.
Reporting metrics to the Alliance	▪ Members ***should*** report: base year, target year, intensity metric used, target reduction (%), AuM covered by sub-portfolio target, absolute metric (where applicable), share of portfolio covered by data (%), and share of portfolio where estimated data are used (%)

T126.

Embodied carbon

Real estate: ▪ Embodied carbon (only applicable to directly held real estate)	
Definition	**Embodied carbon** emissions of an asset are the total GHG emissions and removals associated with materials and construction processes throughout the whole life cycle of an asset. **Upfront carbon** emissions, a subset of Embodied Carbon, are the GHG emissions associated with materials and construction processes up to the point of practical completion. Upfront carbon excludes the biogenic carbon sequestered in the installed products at practical completion. For detailed information, see Background Document, B94–B97.
Scope of emission	Members ***should*** track embodied carbon emissions for new constructions and major refurbishments for directly held real estate.
Accounting approach	Alliance members ***should*** carry out a carbon life cycle analysis (LCA), according to standards such as EN15804 and EN15978 (which are developed by the European market) or the ISO 21930:2017 for Environment Product Declarations (EPD). Members ***should*** use reference area according to International Property Measurement Standard 2 and ***should*** consider a building lifespan of 50 years. When using other assumptions (i.e. building lifespan) to adhere to local or jurisdictional regulatory requirements, members ***should*** disclose any divergence. Members ***should*** also differentiate embodied carbon and upfront carbon emissions.
Key metric	▪ $kgCO_2(e)/m^2$ or $tCO_2(e)/m^2$
Data availability and sources	LCA calculation that includes preferred EPD and the hierarchy between specific and generic data, whether country-adjusted or not. When these data are not available, two different options exist for members in their target setting: ▪ Members aggregate data only for those assets in the portfolio where reported and reliable data can be retrieved. Members then ***should*** disclose the share of the total portfolio that is covered and establish a time-bound plan to retrieve reported and reliable data for those assets not covered. ▪ Members aggregate data and use estimations for those assets where reported and reliable data cannot be retrieved. Members then ***should*** disclose the proportion of assets where estimated data are used, ***should*** give a general description of the methodology used, and ***should*** establish a time-bound plan to retrieve reported and reliable data for those assets where estimations are used.
Scientific reduction pathway or benchmark sources	To be developed

Target setting methodology	Under consideration
Target setting	Under consideration Members ***should*** seek to engage with asset managers to reduce the embodied carbon for new constructions and major refurbishment, and, where possible, for all real estate investments.
Reporting to the Alliance	Reporting is currently not expected but members: ▪ ***Should*** track the portfolio share that is covered by data as of YE2025. ▪ ***Should*** track embodied carbon emissions for new constructions and major refurbishments as of YE2025
Reporting metrics to the Alliance	To be developed

T127.

Sovereign debt

Sovereign debt	
Definition	This asset class includes sovereign bonds of all maturities issued in domestic or foreign currencies. Sovereign debt is typically issued by a central government or treasury department. Sub-sovereigns, supra-nationals, and municipals are explicitly not part of this outline and will be considered in a separate workstream.
Scope of emission	Alliance members: ▪ ***shall*** report production emissions excluding Land Use, Land-Use Change and Forestry (LULUCF). ▪ ***should*** report production emissions related to LULUCF only ▪ ***should*** report consumption emissions excluding LULUCF, when data can reasonably be obtained and estimated. **Production emissions:** align with Scope 1, emissions produced domestically and include domestic consumption and export. **Consumption emissions:** demand side of sovereign emissions and account for consumption patterns and trade effects, ***should*** be in scope for reporting, where data are available or reasonably assessed. **LULUCF:** addresses the different accounting treatment by countries and investors. For detailed information on Scopes, as well as consumption- and production-based emissions, see PCAF standard and Background Document, B98–B107.

Accounting approach	Members ***should*** use PCAF's accounting methodology: **Absolute approach:**[39] $\sum Sovereign\ Emissions\ (tCO_e^2) \times \frac{Expsoure\ to\ Sovereign\ Bonds\ (USD)}{PPP - adjusted\ GDP\ (international\ USD)}$ Where exposure to sovereign bonds is in Nominal Value. **Intensity approach:** For Production emissions: $\sum_{i=1}^{n} w_i \times \frac{Sovereign\ production\ emissions\ (tCO_e^2)_i}{PPP - adjusted\ GDP\ (international\ USD)_i}$ Where w_i represents the weighted exposure of sovereign bonds for sovereign "i" in a portfolio consisting of "n" securities based on Market Value. For Consumption emissions: $\sum_{i=1}^{n} w_i \times \frac{Sovereign\ consumption\ emissions\ (tCO_e^2)_i}{Total\ population_i}$ Where w_i represents the weighted exposure of sovereign bonds for sovereign "i" in a portfolio consisting of "n" securities based on Market Value.
Key metrics	▪ tCO_2e, tCO_2e/PPP-adjusted GDP, tCO_2e/capita, and portfolio score
Data availability and sources	Sovereign emissions data can be retrieved from OS Climate or from any other credible sources. For assessment, data used for scoring can be retrieved from the Assessing Sovereign Climate-related Opportunities and Risks (ASCOR), as processed by the Alliance. For more information see Background Document, B108–B117.
Scientific reduction pathway or benchmark sources	Alliance members expect all governments to follow through on their Paris Agreement climate commitments, as stated in the Alliance's Commitment (NZAOA 2022b). The overall objective remains to limit global warming to 1.5°C (with no or limited overshoot), while respecting country differences.
Target setting methodology	Under consideration
Target setting	Under consideration
Reporting to the Alliance	▪ Emissions ***shall*** be reported annually, starting from 2024 Alliance Reporting Cycle. Where possible, members ***should*** make public carbon data for sovereigns' carbon accounting from YE2023 on. ▪ Assessment ***should*** be reported annually, starting from 2025 Alliance Reporting Cycle. For detailed information, see T128–131.

39 The Alliance will evaluate and align with PCAF on alternative attribution factors as they emerge.

Reporting metrics to the Alliance	▪ Members ***shall*** report: yearly financed GHG emissions since selected base year (Production emissions excluding LULUCF or Scope 1). ▪ Members ***should*** report: production emissions LULUCF only, consumption emissions excluding LULUCF, production emission intensity (excluding LULUCF), consumption emission intensity (excluding LULUCF), and portfolio score (return-seeking or full sovereign portfolio).

T128. **Assessment of sovereign debt**

To have a holistic understanding of the climate alignment of those countries whose sovereign debt asset owners hold, the Alliance believes it is important to supplement carbon accounting with an additional step by assessing sovereign portfolios through a scorecard. Throughout 2024, the Alliance will pilot such an assessment. To develop this scorecard, the Alliance intends to deploy a group of indicators for which data are available in the ASCOR database. For each sovereign, the score will be defined as the fraction of all elements with a positive indication. As part of the pilot phase of the scorecard, the Alliance will continue to explore the development of other secondary methodologies (such as setting boundary scores) that demarcate portfolios assessed to be climate-lagging, neutral, or leading.

T129. Alliance members ***should***

- pilot the use of the scorecard indicators to assess the performance of their sovereign debt holdings
- initiate the pilot assessment during 2024 (as covered by ASCOR)
- report on the initial outcomes of the pilot assessment in the 2025 Alliance Reporting Cycle. This timeline reflects Alliance members' willingness to move forward with the development of this section of the protocol in parallel with ASCOR's work.

T130. Members ***should*** apply the assessment to the whole portfolio, when possible. If members choose to assess their full Sovereign Debt portfolio, they ***should*** disclose a market value-weighted portfolio average score.

T131. However, due to the multifaceted role of sovereigns in an asset owner portfolio, Alliance members may treat these sub-portfolios differently with regards to sovereign debt assessment. For sovereign debt assessment, the following definition of sub-portfolios may be applied:

- **Liquidity Sub-Portfolio**: this sub-portfolio comprises the sovereign bonds whose presence in the portfolio is dictated by a regulatory or liquidity management requirement or are used for purely financial functions such as duration management. The member is constrained against wholesale selling of these bonds. Typically, this sub-portfolio will contain issuance by the sovereign or sovereigns in which the member entities are domiciled (e.g. gilts in the United Kingdom and treasuries in the United States). The proposal would be for individual members to define the Liquidity Sub-Portfolio that best suits their fiduciary and risk management circumstances.

- **Return-Seeking Sub-Portfolio**: this sub-portfolio comprises all other sovereign bonds.

If members choose to assess their Sovereign Debt on the return-seeking sub-portfolio only, Alliance members:

- ***shall*** disclose their definition of Return Seeking Portfolio
- ***should*** disclose a market value-weighted portfolio average score

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Overview of content and content updates through TSP editions

	Background document	Paragraph	V1	V2	V3 + Annex	V4
	Introduction	**B1–B2**				
1	**The Alliance's Theory of Change**	**B3–B28**	**x**			**x (updated)**
2	**The scientific basis for establishing net-zero targets**					
2.1	Scenario pathways	B29–B31			x	
2.2	Real Economy Progress	B32–B38	x			
2.3	Just Transition	B39–B47			x	x (updated)
3	**Background information to engagement targets**					
3.1	Future of Investor Engagement	B48–B49				x
3.2	Comparison of TSP against CA100+ criteria	B50–B54		x		
4	**Background information to sector targets**					
4.1	Comparison of carbon emission metric	B55	x			
4.2	Sector Pathway comparison	B56–B70	x	x		
4.3	Financial sector classification	B71	x			x (updated)
5	**Background information to sub-portfolio targets**					
5.1	Comparison absolute and intensity metrics	B72–B74	x			
6.2	Infrastructure	B75–B81			x	
6.3	Real Estate	B82–B97			x	x (updated)
6.4	Sovereign Debt	B98–B116			x	x (updated)
7	**Policy**	**B117–B124**			**x**	**x (updated)**

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