IIGCC

# Investing in Climate Solutions: IIGCC supplementary guidance

June 2025

# Contents



# Acknowledgements

This document was developed by IIGCC, with contributions from Freddie Turner; Valentina Ramirez; Mahesh Roy; Dan Gardiner; Ella Sexton; Adrian Fenton; Leo Donnachie; Sophie Barnes; and Elena Vydrine.

IIGCC would like to acknowledge all IIGCC members that have actively participated in IIGCC's past and present climate solutions working groups. Specifically, IIGCC would like to thank 2025 workstream participants, including: Nick Gaskell (Aberdeen), Roger Lewis (Downing), James Sieyes (Invesco Ltd.), Steve Smykal (Invesco Ltd.), George Cowman (Local Pensions Partnership Investments), Julia French (Local Pensions Partnership Investments), Pauline Vaskou (Man Group), Sam Segameglio (Ninety One), (NN Group), Carlota Garcia-Manas (Royal London Asset Management), Riaan Potgieter (StepStone Group), Inês Cunha Pereira (TPT Investment Management), Rachael Lem (West Midlands Pension Fund), Neeti Shah (West Midlands Pension Fund), Chandra Gopinathan.

## Disclaimer



# Introduction

Credible net zero pathways indicate that a significant scaling up of investment in climate solution activities is required to reach net zero. These investments are essential to mitigate the financial risks posed by climate change and can also offer opportunities for portfolio diversification and attractive risk-adjusted returns.[1]

The Net Zero Investment Framework (NZIF) outlines the key components of a net zero strategy and transition plan that investors can consider, with two overarching objectives:

- Transitioning investment portfolios in a way that is consistent with the mitigation goals of the Paris Agreement, focusing on **real economy decarbonisation.**
- **Increasing investment** in a range of **climate solutions** to enable the transition.

This document offers implementation guidance to support investors in achieving the second objective.

IIGCC has previously published asset class-specific climate solutions guidance for listed equity and corporate fixed income[2] and renewable energy generation infrastructure.[3] Based on updated and expanded feedback from members, the following challenges were identified as limiting their ability to scale investment in climate solutions:

- Defining what counts as a climate solution.
- Understanding the levers of influence available to increase allocation to climate solutions.
- Identifying relevant metrics to help communicate investors' contribution.
- Managing potentially high emissions and/or misalignment of climate solutions assets.

This paper helps investors address these barriers, and is structured as follows:

1. **Defining climate solutions:** This document outlines a broad definition of climate solutions at activity level, offers a distinction from transition finance, and summarises relevant regulation.
2. **Guidance for scaling investments in climate solutions:** This *asset class-agnostic guidance* can act as a foundation for a coherent, portfolio-level approach to climate solutions investment. It identifies levers of influence, proposes metrics that may help investors communicate their contributions to climate solutions, and outlines how investors can address emissions associated with climate solutions.
3. **Asset class addenda:** A series of *asset class-specific addenda* that can add granularity to an investor's approach to climate solutions investment.[4]

**This guidance addresses climate solutions specifically for the objective of climate change mitigation.**[5] IIGCC recognises that considerable investment is also required to enhance portfolio and systemic adaptive capacity and climate resilience. Following the recent publication of the Climate Resilience Investment Framework (CRIF), IIGCC will develop guidance on adaptation solutions in due course. This will build on insights from approaches that investors are already developing to climate solutions that address other environmental objectives, including adaptation, nature, and biodiversity.

Some activities, for example in the nature domain, may have both mitigation and adaptation outcomes. These activities are welcomed under the implementation of this guidance – supporting NZIF objectives – or eventually under upcoming CRIF adaptation solutions guidance.

# Defining climate solutions

The net zero transition requires a system change, with the phasing down of carbon intensive assets and scaling up of low-carbon alternatives. Institutional investors play a crucial role whether by directing capital towards these low carbon alternatives, influencing asset behaviour through stewardship, and/or with policy advocacy.

Investors aiming to increase exposure to climate solutions or set related objectives seek a comprehensive method to assess and track these across various activities, asset types and asset classes. While green taxonomies offer some utility to investors, they are often limited and not always interoperable across regions and investment approaches.

Working with members, IIGCC has sought to develop a definition of climate solutions that links to the fundamental investment requirements of the transition to net zero.[6]

**Climate Solutions definition:**

**Activities, goods or services that, according to credible pathways, need to increase substantially to enable the global economy to reach net zero.**

The definition focusses on **activities that are essential for achieving a net zero economy** and **inherently compatible with this goal.** It is kept intentionally broad, and designed to be flexible, accommodating diverse investment approaches, sectoral and regional nuances, as well as emerging technologies. This guidance does not specify which activities are considered climate solutions, as these are determined by the **credible net zero pathways** used by each individual investor. NZIF currently defines a credible pathway as a pathway "consistent with global carbon emissions reaching net zero by 2050, with low or no overshoot, and thus providing a sufficient probability of limiting warming to 1.5°C."[7]

## Climate solutions and transition finance

The discussion on transition finance has matured over the last several years, highlighting the need to differentiate between climate solutions and transition finance investments. While there are varying financial instruments, taxonomies, and methodologies that may overlap, a distinction is helpful to scale these types of finance effectively. Such a distinction can help investors monitor and communicate their contributions to the net zero transition, thereby incentivising investments in climate solutions and supporting a broad range of activities needing capital for the transition.

To this end, it is helpful to describe climate solutions investments as those addressing activities that **directly enable further mitigation efforts** and **are inherently aligned with achieving a net zero economy.**

In a recent paper, *'Transition Finance: from concepts to flows'*, IIGCC members described transition finance as the investment that is catalysing the transition of the asset itself. For example, through provision of ringfenced finance for a transition activity or underpinned by a robust stewardship model such as engaging on a specific transition outcome.[8]

There are wide-ranging approaches to and definitions of transition finance amongst investors. Some prefer a starker distinction, whilst others may see climate solutions as a form or sub-set of transition finance.[9] This guidance does not aim to define transition finance, focusing instead on climate solutions.[10]

This guidance offers a broad definition of climate solutions at the activity level while acknowledging that classifications at the entity or asset level may vary by asset class and investor. When applying the activity-based definition to the entity or asset level, investors should transparently disclose their approach and elaborate the guardrails they put in place.

To protect the integrity of investors' respective approaches to climate solutions investment, this guidance identifies the following disclosure principles which investors are recommended to apply across asset classes:

1. **Transparency:** Disclose assumptions and methodologies in a clear and, fair manner that does not mislead.
2. **Standardisation:** Contribute to standardisation of climate solutions disclosures across the industry.
3. **Robustness:** Disclose the extent to which the climate solutions objective has been aligned with a credible net zero pathway.

# Climate solutions in regulation

A number of regulatory requirements in different jurisdictions seek to promote transparency over, and facilitate capital flows towards, climate solutions. These regulations primarily take the form of climate-related disclosure requirements, including fund labelling regimes and reporting against sustainable or 'green' taxonomies.[11]

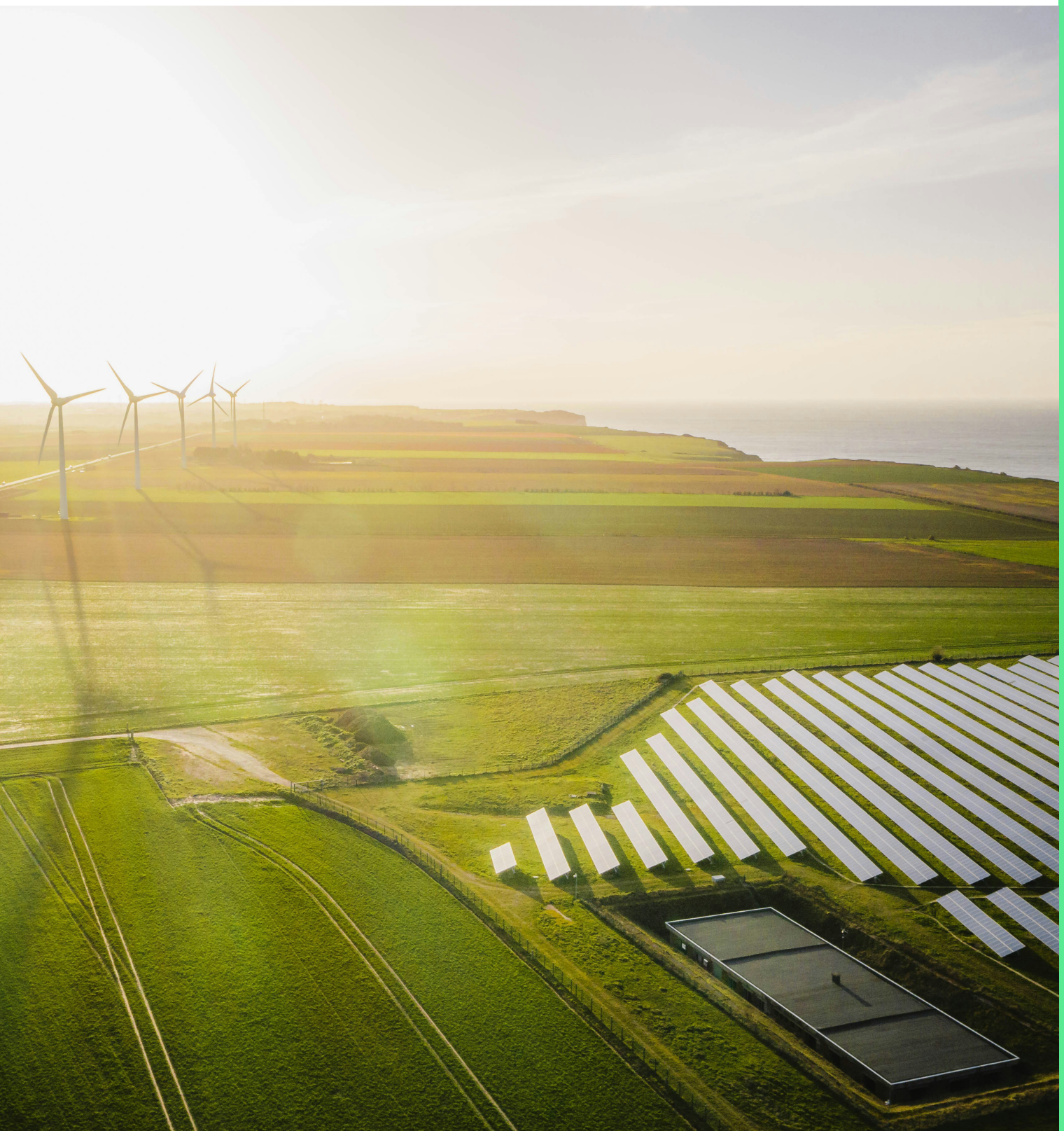
Taxonomies seek to establish classification systems to identify economic activities that are deemed environmentally sustainable when assessed against dynamic and scientific criteria. This includes the EU taxonomy, which covers six environmental objectives, including climate change mitigation and climate change adaptation. Taxonomies can provide a basis for identifying and investing in climate solutions, but in practice investors and corporates have encountered numerous challenges when it comes to implementing the requirements.

Additionally, a range of investor-focused disclosure and labelling regimes have been established to increase transparency over investors' approaches to sustainable investment and to mitigate greenwashing risk. The EU's Sustainable Finance Disclosure Regulation (SFDR) requires investors to disclose how they manage sustainability-related risks and opportunities at entity- and fund-level. Funds with dedicated sustainability characteristics are required to produce enhanced disclosures. For instance, where they 'promote environmental characteristics' (Article 8) or pursue 'environmentally sustainable investments' (Article 9). Such funds may specify a commitment to invest in a minimum level of Taxonomy-aligned investments to support their sustainability objectives.

While the SFDR currently operates as a disclosure regime, the UK Financial Conduct Authority (FCA) has, in contrast, developed three distinct labels (plus a mixed goals label) to help consumers navigate the landscape of sustainable investment funds. A 'Sustainability Focus' fund requires a minimum of 70% of the fund's assets to already be sustainable (as determined by a robust evidence-based standard, such as compatibility with the EU taxonomy). It is currently unclear whether funds with the 'Focus' label can contain 'transition' assets, as there is a general requirement for them to not hold assets that have attributes that conflict with the objective of the fund. It is also possible for 'Sustainability Impact' funds to contain assets compatible with the technical screen criteria of the EU Taxonomy; however, the investment manager must also be able to demonstrate some impact. It is likely that transition assets can be held within funds with the 'Sustainability Improvers' label, given the focus is on assets that have the potential to improve. Regardless, the FCA's label regime does not seek to determine what constitutes a climate solution.

# Guidance for scaling investment in climate solutions

This section supports investors in developing a coherent approach to climate solutions across multiple asset classes that can be used as the foundations for asset class-specific approaches.



# Levers of influence related to climate solutions

Investors have a range of levers at their disposal to facilitate the scaling up of investment to climate solutions and the achievement of climate solutions objectives.

**Recognising the difference in levers across different instruments and contexts**

When it comes to increasing overall investment in climate solutions that facilitate the transition, it is important to distinguish between providing fresh capital to invest in climate solutions and being exposed to them. In the former, the investor's capital is actively at work, while in the latter, investors gain opportunities to engage and use other levers.

Even within a single asset class, multiple factors affect how much control or influence an investor has over a particular asset. These factors include:

- **Market Type:** Primary vs. secondary markets; private market vs. public market
- **Nature of the instrument:** Debt vs. equity
- **Type of strategy or mandate:** Index vs. active; segregated or pooled fund
- **Ownership or funding concentration:** Majority owner vs. minority owner, or low relative weight as debt provider.

In general, providing new capital (equity or debt) to companies, projects, or governments delivering or investing heavily in climate solutions via opportunities in the primary market is likely to enhance the investors' ability to influence.

This, however, does not mean that other levers are not worth implementing. Secondary market investments, passive strategies, and minority holdings can play significant roles in supporting scale climate solutions, albeit with different levels of direct influence. Investors are encouraged to explore all levers and apply their maximum ambition.

NZIF outlines the key components of a net zero strategy and transition plan that an investor can consider – these key components can be mapped across to address climate solutions specifically. The table below lists some recommended actions investors can embed into their approach to climate solutions within their net zero investment strategy. Additional actions that may be specific for certain asset classes, are detailed in the asset class addenda.

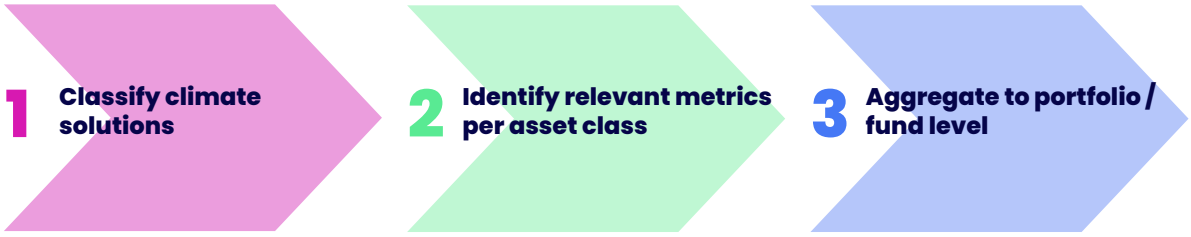
**Levers of influence related to climate solutions**

| NZIF section | Recommended actions |
|---|---|
| **Governance** | ■ Ensure that boards have the expertise and mandate to support climate solutions investment<br>■ Align executive incentives with allocation to climate solutions objectives (e.g., KPIs/executive renumeration) |
| **Objectives** | ■ Set a high-level objective to scale investment in climate solutions (disclose approach and ambition)<br>■ Set quantitative targets for climate solutions investments across asset classes where feasible |
| **Strategic Asset Allocation** | ■ Consider what climate solutions investments would be best aligned with the investment mandate<br>■ When possible, consider adopting long-term perspectives to support the development and scaling investment in climate solutions<br>■ When possible, consider allocation to sectors and/or activities and regions that may be more impactful for the transition<br>■ Evolve SAA processes to identify sub-asset classes that specifically encompass climate solutions investments (e.g. renewable energy infrastructure) |
| **Asset level assessment and targets** | ■ Develop and transparently disclose specific metrics per asset class and/or activity to measure and track progress towards climate solutions investment<br>■ Consider integrating climate solutions metrics into capital asset allocation and decarbonisation plan criteria<br>■ Engage holdings across asset classes to scale up assets' capital allocated to climate solutions activities where feasible<br>■ Report on proportion of assets allocated to climate solutions at portfolio level |
| **Stakeholder and market engagement** | ■ Foster inclusive and constructive dialogue with stakeholders, including employees, and service providers to support investment in climate solutions<br>■ For transparency, disclose these engagement activities to set clear expectations and market signals |
| **Policy advocacy** | ■ Engage in policy advocacy to support the development and implementation of policies that create incentives to scale climate solutions investments |

# Communicating contribution to climate solutions: A 3-step approach

To measure exposure, communicate investor contribution, and/or to support the setting of objectives for climate solutions, a 3-step approach can be applied to all asset classes.[12]

**Figure 1: A 3-step approach to measuring exposure and contribution to climate solutions**




1. **Classify climate solutions.** Investors can begin with identifying activities, goods or services that, according to credible pathways, need to increase substantially to enable the global economy to reach net zero.
2. **Identify relevant metrics for each asset class.** Identifying relevant metrics allow investors to assess and communicate the contribution of an investment using the appropriate data.
3. **Aggregate to portfolio level.** When possible, investors can aggregate metrics for a comprehensive view of the portfolio's exposure to climate solutions or adopt a 'dashboard' approach, using a set of diverse and complementary metrics.

The following sections outline approaches to classification and metrics that are relevant for multiple asset classes. More tailored recommendations are provided in the addenda, as specific considerations may vary by asset class.

## 1. Classifying climate solutions

This guidance encourages investors to develop an **activity-level approach** to classifying climate solutions, building on the definition provided. For investors or investment strategies that classify climate solutions at **entity or asset level,** for example using thresholds based on specific climate solutions metrics, it is recommended the methodology and rationale be fully explained, adhering to the principles of transparency, standardisation and robustness.

IIGCC's Listed Equity and Corporate Fixed Income guidance outlined a potential approach to classifying climate solutions using taxonomies as a foundation. The climate solutions definition in this guidance allows for taxonomy-based approaches, hence investors may implement such an approach should they find it valuable.

### Taxonomy-based approach

For investments where a local taxonomy is available investors can map the activities and technical screening criteria (TSC) to portfolio holdings. The taxonomy-based approach has two buckets.

1. **Taxonomy-aligned activities:** Activities that have the potential to contribute to climate change mitigation *as well as* satisfying the conditions relating to the technical screening criteria (TSC), which ensures that the activity is substantially contributing to climate change mitigation, whilst meeting Do No Significant Harm (DNSH) criteria and minimum social safeguards.

2. **TSC-aligned activities:** Activities that meet the TSC for making a substantial contribution to climate change mitigation but do not fulfil all other criteria and tests relating to DNSH.[13]

While green taxonomies offer some utility to investors, they are often limited and not always interoperable across regions and investment approaches. Earlier guidance introduced the 'Taxonomy-plus' approach to allow investors to identify activities that contribute to climate change mitigation in situations where the taxonomy-based approach may not apply.

### Taxonomy-plus approach

For investments where a local taxonomy is not available, incomplete, or faces inter-operability challenges, investors can consider:

1. **Taxonomy-equivalent activities:** Activities that are covered by one taxonomy occur in a jurisdiction where a taxonomy does not exist, and the TSC is not applicable in that jurisdiction or cannot be applied.
2. **Extra-taxonomy activities:** Activities that are considered critical for the transition in credible net zero pathways, but that are not considered eligible by a local taxonomy.

In alignment with the climate solutions definition proposed in the first section, if utilising taxonomies, investors may wish to move beyond a simple 'taxonomy-based' approach and allow for 'taxonomy-plus' classifications.

## 2. Identifying relevant climate solutions metrics per asset class

Metrics are needed to monitor, report and support the scaling of investment in climate solutions. Some metrics are useful to identify exposure and/or facilitate engagement with assets, whilst others may be better placed to report or communicate investors' contributions to accelerating the transition. Others are best placed to assess potential for environmental impact and inform decision making.

**No single metric can capture the nuances of climate solutions investment across all asset classes. IIGCC therefore recommends investors use a variety of metrics to inform their approach to climate solutions investment.**

This section outlines some commonly used metrics that are broadly applicable across multiple asset classes.[14] The addenda detail how investors can measure exposure and contribution to climate solutions using specific metrics for the relevant asset class.

Qualitative approaches to climate solutions investment that assess the nature of a business can also be very effective, particularly when complementing quantitative approaches. This is particularly relevant in areas where data is limited, such as emerging markets.

### Financial metrics (green revenues and green capex)

Investors can assess entities, asset class and portfolio exposure to climate solutions activities using financial metrics, particularly revenues and capex. Revenues and capex associated with climate solutions activities are referred to as 'green revenues' and 'green capex'.

- **Green revenue metric:** Provides a point in time, current or historic, of the exposure of a company's activities to the green economy. It captures the revenues from products and services sold that are derived from climate solutions activities. As such, this metric is consistent with standard financial reporting but can be sensitive to price fluctuations.

- **Green capex metric:** It helps investors identify companies that are investing capital to develop or grow solutions activities. Green capex can also be linked to investment requirements across industries and technologies as defined in net zero scenarios. This metric is particularly useful for assessing capital allocated to decarbonise an entity's own operations (in the context of transition finance), although it can act as a forward-looking indicator for green revenues in some industries and/or sectors. For other sectors this metric may not correlate to climate solutions if the capex does not result in green revenues.

**Table 1: Advantages and challenges of green revenues and green capex**

| Metric | Description | Advantages | Challenges |
|---|---|---|---|
| **Green revenues** | Revenues from the sale of climate solutions products and services.<br>*Reported in financial terms (£m, $m, €m, etc.)* | ▪ Data more readily available than alternatives<br>▪ Simple to understand, standard financial metric<br>▪ Data availability likely to continue to improve | ▪ Backward-looking<br>▪ Classifications can differ amongst data vendors<br>▪ Link to investment required to align with a net zero pathway is difficult to derive<br>▪ Metric is influenced by pricing shifts |
| **Green capex** | Capital expenditure in new climate solutions technologies and products.<br>*Reported in financial terms (£m, $m, €m, etc.)* | ▪ Forward-looking indicator of management priorities<br>▪ Simple to understand, standard financial metric<br>▪ Data availability likely to continue to improve<br>▪ Can be benchmarked against sector net zero pathway | ▪ May not correlate to climate solutions if the capex does not result in green revenues<br>▪ Limited data availability<br>▪ Unstandardised reporting, estimation models limited |

## Operational and production metrics

Operational and production metrics can be used to assess the environmental performance and/or progress towards climate goals. While this guidance does not offer a list of eligible climate solutions (i.e., investors are encouraged to disclose their own approach), certain 'key activities' have been identified as crucial for the transition to net zero by pathway providers. According to the IEA's NZE scenario, around 75% of the increased annual investment needed by 2030 is concentrated in renewable generation, buildings, electric vehicles, and grids, including batteries.

The performance of most of these activities can be measured using metrics such as gigawatt-hour (GWh) or % of EVs sold, resource efficiency, and entities involved in these activities often set targets using these metrics. IIGCC's analysis of corporate transition plans of European Climate Action 100+ companies showed that of 29 companies across four sectors (automotive, diversified mining, energy utilities and oil and gas), 22 had set assessable targets for their climate solutions activities. In this way these metrics are particularly useful for investors to communicate their contribution to the most critical climate solutions and inform their engagement priorities.

**Table 2: Advantages and challenges of operational and production metrics**

| | Description | Advantages | Challenges |
|---|---|---|---|
| **Operational and production metrics** | Maximum output (assuming 100% utilisation) of manufactured goods and materials that a business or project can achieve based on factors such as time, labour, materials and equipment<br>*Reported in unit of output per period, sector -specific (e.g., GWh of renewable energy, tonnes of copper, etc.)* | ▪ Captures real world outcome linked to emissions reduction<br>▪ For corporate assets, helpful to understand trajectory and credibility of a company's transition plan<br>▪ Can be benchmarked against net zero pathways to support 1.5C alignment assessments | ▪ May be more or less relevant for particular asset classes and/or activities<br>▪ Cannot be easily aggregated to portfolio level given different parameters and unit of output for each industry<br>▪ Disclosures are not widely available<br>▪ Best suited to homogeneous high GHG intensive sectors such as industrial goods and energy |

## Avoided emissions metric

Avoided emissions (or scope 4) are emissions that are said to be avoided due to the investment in/use of a product or service, relative to the marginal technology that is assumed in a counterfactual scenario baseline.

Avoided emissions can help capture an asset's or portfolio's positive impact on emissions reductions beyond the value chain. Methodologies are becoming increasingly robust and more commonly used, leading to improvements in the face of this challenge. For example, the recently published Avoided Emissions Platform[15] and The World Business Council for Sustainable Development (WBCSD) guidance.[16] Despite these efforts, the large number of potential counterfactual scenarios remains a challenge. Therefore, when avoided emissions are used in an investor's approach to climate solutions, investors have a responsibility to ensure the process is robust and to maximise transparency by disclosing the full array of assumptions.

Avoided emissions metrics may be particularly helpful to assess investment decisions and compare the decarbonisation potential of different investments. When using avoided emissions, IIGCC recommends following these reporting standards to maintain rigour:

- Do not offset avoided emissions against scope 1, 2 or 3 financed emissions
- Follow PCAF's recommendations to ensure guardrails in place[17]
- Disclose methodology used
- Engage with data providers and asset managers to ensure they take a transparent approach and to encourage market-wide convergence on robust avoided emissions practices
  - What guidance do you follow?
  - How do you select counterfactual scenarios?
  - How do you calculate a company's exposure to climate solutions?
  - Do you use company reported data or estimates? How are estimates calculated?
  - How do you apply the precautionary principle in calculating avoided emissions?

**Table 3: Advantages and challenges of avoided emissions**

| | Description | Advantages | Challenges |
|---|---|---|---|
| **Avoided emissions** | Emissions that are avoided due to the investment in/ use of a product or service relative to the marginal technology that is assumed in a counterfactual scenario baseline<br>*Reported in absolute or intensity emissions ($CO_2e$ or $CO_2e$/ £m invested)* | ▪ Captures emissions reductions, making it interoperable with common emissions-based metrics<br>▪ Can be calculated for a range of products and services, not dependent on revenue and capex disclosures for a pre-defined set of activities | ▪ Lack of standardised methodologies for calculation<br>▪ Numerous counterfactual scenarios to select from, subject to manipulation<br>▪ Highly complex methodologies, risking a lack of understanding of the assumptions and limitations |

## 3. Aggregating up to portfolio level

Where feasible, investors can aggregate climate solution metrics at the portfolio level to support impact monitoring, target-setting, and communication. However, this may not be practical for multi-asset class portfolios. In line with IIGCC's recommendation to avoid relying on a single metric, investors can instead adopt a 'dashboard' approach that draws on a set of diverse and complementary metrics.

# Addressing emissions associated with climate solutions

Many climate solutions activities incur emissions. For example, manufacturing wind turbines requires steel, EVs have higher embodied carbon than combustion engine alternatives, and mining transition materials is also carbon intensive. Whilst these emissions are often modest in the context of a full lifecycle analysis or when weighed against their wider benefits, the rapid scaling of these activities required for a swift transition could pose challenges. If left unchecked, this scaling may lead to an increase in both real-economy emissions and reported portfolio emissions.

**Investors have raised concerns that increasing investment in climate solutions may hinder the achievement of emissions reductions objectives.** Investors are therefore recommended to carefully consider the balance of emissions of an investment with its contribution to the net zero destination. To this end, they can take the following measures to prevent perverse outcomes: a) maintain focus on net zero alignment strategy, and b) monitor climate solutions' emissions and STEM emissions.

## Maintain focus on net zero alignment strategy

NZIF proposes that investors focus on financing reduced emissions rather than reducing financed emissions. It does this by supporting investors to develop net zero strategies which focus on 'asset alignment' as the premise through which investors can pursue real-economy emissions reductions. Assets are assessed against alignment criteria and a maturity scale. Climate solutions activities are encouraged to make best efforts to meet these criteria in line with sector best practice. A 2050 net zero target is particularly important; ultimately, for the world to reach net zero, these activities need to reach net zero too.

Investors are encouraged to use the identified levers to support investments to improve their alignment performance, including engaging assets for them to improve their transition plans, to scale their investment in climate solutions and to set targets against relevant net zero pathways [see page 9].

## Monitor climate solutions' emissions – STEM emissions

A key principle of NZIF 2.0 is that emissions reduction objectives should not deter investment in climate solutions. The concept of STEM emissions provides a more nuanced lens to accommodate this principle in carbon accounting. Investors may choose to implement this approach to demonstrate that assets with high or increasing emissions can still be worthwhile climate investments and to communicate climate performance more accurately.

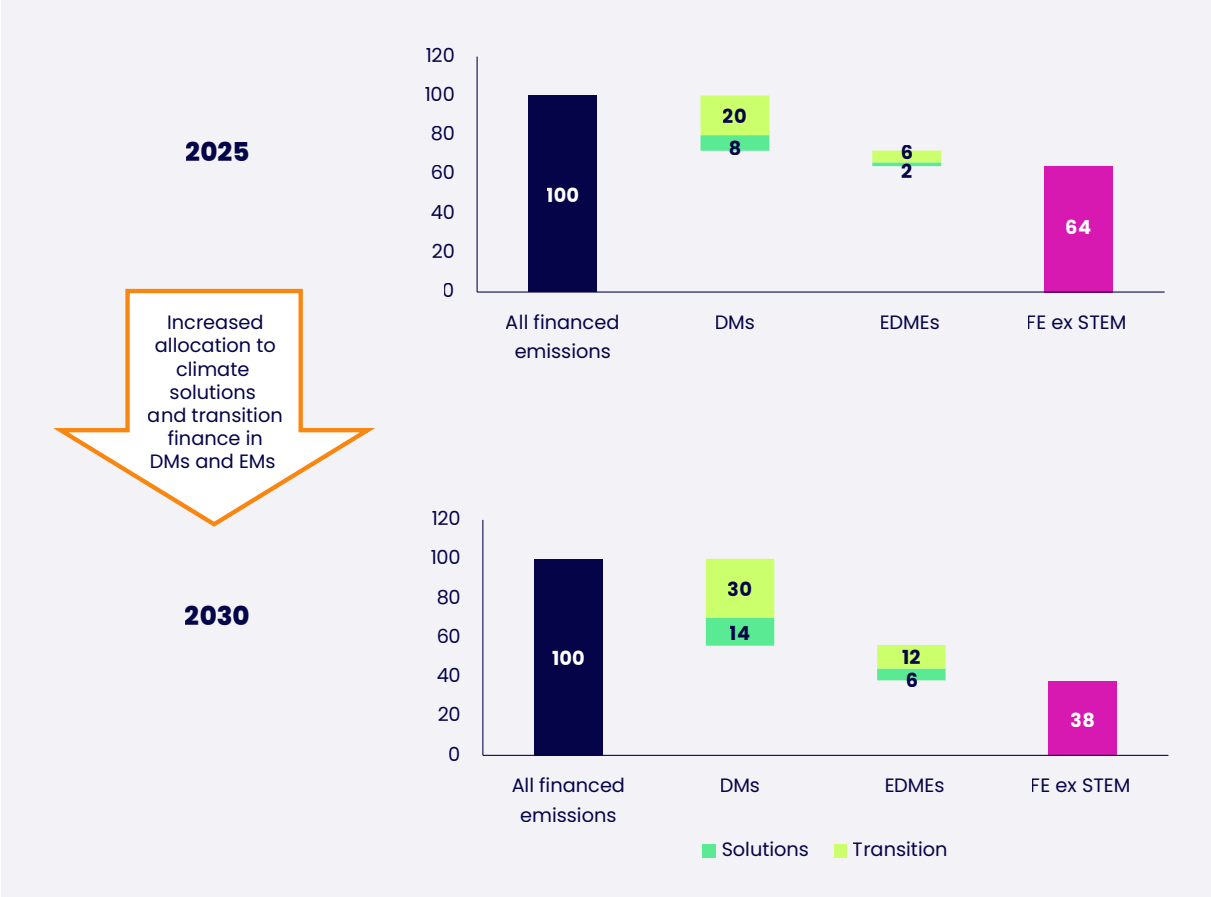
NZIF 2.0 introduces the concept of STEM emissions: the financed emissions associated with climate related – **s**olutions, **t**ransition[18] and/or **e**merging **m**arkets investments.[19] As STEM emissions represent avenues for significant real-economy emissions reductions and for incorporating fair share principles, NZIF suggests identifying and measuring these specifically. Care should be taken in identifying and segmenting these financed emissions. They should not include assets that are high-emitting and will not contribute to net zero goals i.e., the ability to transition or the location of the asset is not alone sufficient to categorise their emissions as 'STEM'.

In practice, investors could implement this concept by:

- **Step 1:** Segmenting financed emissions into 'climate solutions' and 'transition finance' across Developed Markets (DMs) and Emerging Markets and Developing Economies (EMDEs) separately.
- **Step 2:** Setting separate portfolio emissions objectives for increasing allocations to climate solutions and transition finance – particularly in emerging markets – over time as a percentage of total portfolio emissions.
- **Step 3:** Reporting, tracking and measuring these objectives separately – when possible, through existing reporting requirements.

Figure 2 below provides a visual illustration of this approach across a five-year period.

**Figure 2: Monitoring STEM emissions and illustrative changes over time**

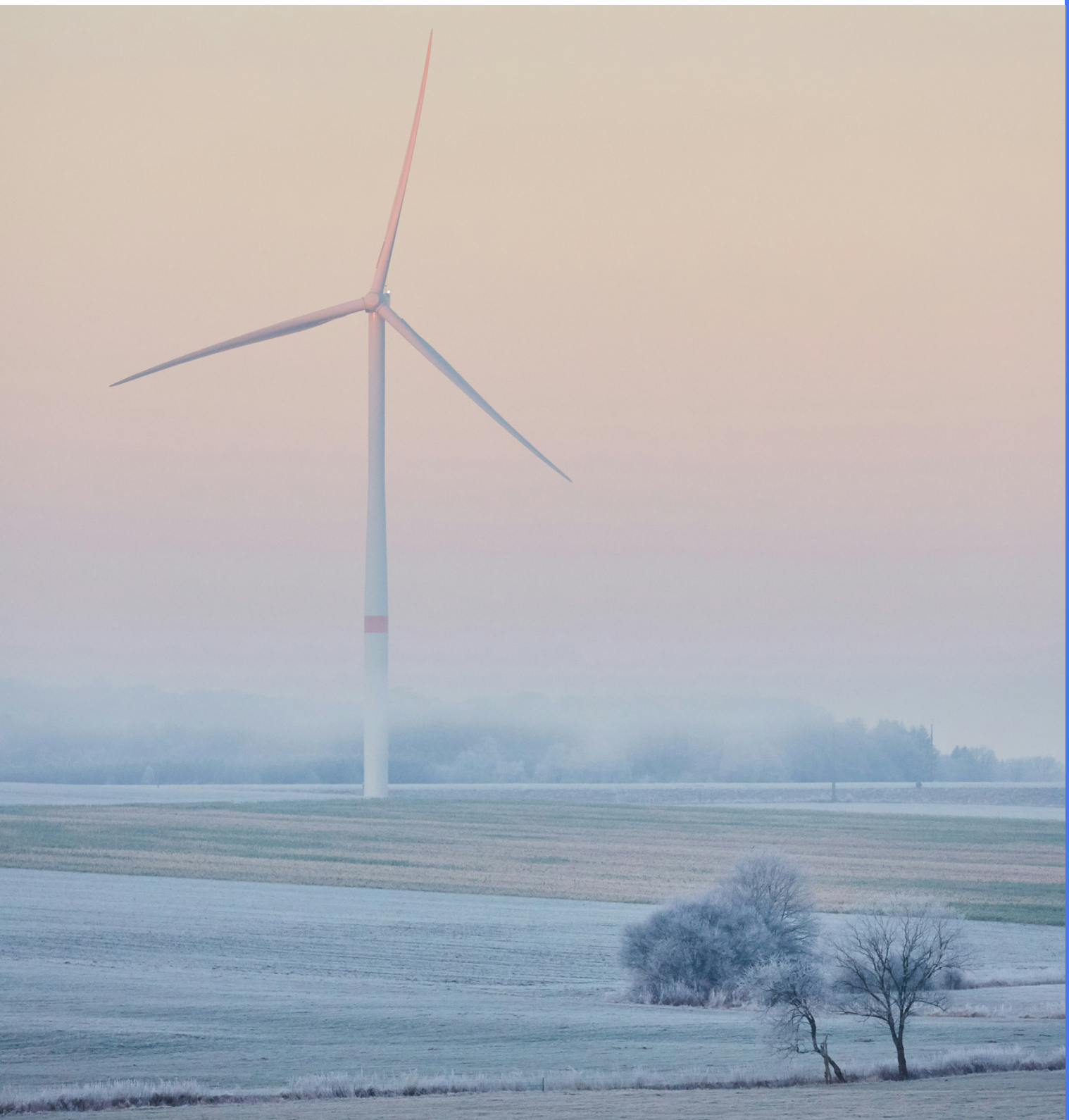



The objective of STEM emissions as an alternative carbon accounting measure metric is to better understand portfolio performance when it comes to real-economy emissions reductions. By segmenting investments that may currently have high emissions but are expected to have a positive impact on reaching net zero, investors can better understand which assets contribute to their net zero goals and which do not. This approach can help inform both stakeholders and strategic decision-making.

# Asset class addenda

This section supports investors in developing granular, asset class-specific approaches to climate solutions investment. Specifically, the addenda will:

1. Outline relevant levers of influence to scale investment in climate solutions for each asset class.
2. Apply the 3-step approach detailed in the main section across multiple asset classes to support the measuring of exposure and contribution to climate solutions.



# Addendum A: Listed equity and corporate fixed income

IIGCC published *'Climate Solutions Guidance for Listed Equity and Corporate Fixed Income'* in November 2023. For further detail on transparency recommendations and the taxonomy-based and taxonomy-plus approach, including examples, investors can refer to that paper.[20]

## Levers of influence

The extent to which investors can apply the different levers below varies significantly across investment vehicle (e.g., direct investment, externally managed funds, segregated or pooled mandates, etc.), asset class (equity/stocks vs. fixed income/bonds), and the circumstances of each individual investor. Investors are encouraged to make their best efforts to scale further investment to climate solutions.

### Setting internal direction and portfolio structure for alignment

- **Portfolio allocation decisions:** Allocating capital to funds, or corporates that are specifically aimed at scaling climate solutions activities.
- **Allocate resources to understand and scale funding of instruments that channel capital to climate solutions:**
  - Investing in green bonds and sustainability-linked bonds issued by companies to finance climate solutions activities.
  - Support green securitisations, i.e., pooling assets or using proceeds to invest in climate solutions activities.

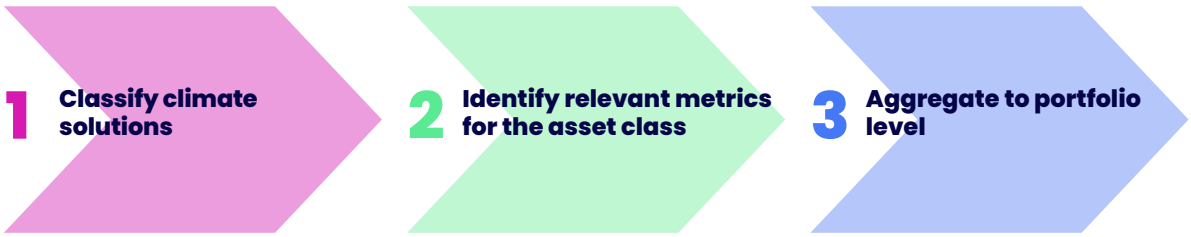
### Asset level assessment and engagement

- **Engagement and stewardship with corporates:** Actively engaging with companies to encourage further investment in climate solutions and disclosure improvements across useful metrics. This includes voting on climate-related shareholder resolutions and participating in dialogues with company management.
- **Join collaborative engagement initiatives:** Participating in collaborative investor initiatives, such as Climate Action 100+, to amplify influence and contribute to systemic change across industries.
- **Alignment assessment:** Integrate climate solutions metrics into the asset alignment assessment of listed corporates. Climate Action 100+ Net Zero Company Benchmark indicators 5 (decarbonisation strategy) and 6 (capital allocation) directly reference climate solutions.

### Influencing external environment to facilitate alignment

- **Engagement with service providers:** Engaging service providers, such as data[21] or index[22] providers, to improve their climate solutions offering and the disclosure of metrics that facilitate assessing exposure, contribution, and communication.
- **Join capital mobilisation initiatives:** Contributing to the development of further guidance and collaborative engagement activities to scale allocation to climate solutions (e.g. UK EMDE Taskforce).
- **Supporting climate policy:** Advocating for stronger climate policies and regulations at the local, national, and international levels, to improve market incentives towards climate solutions investments.

# A 3-step approach to measuring exposure and contribution to climate solutions




Identify and classify activities, goods or services that, according to credible pathways, need to increase substantially to enable the global economy to reach net zero.

Assess contribution of a corporate using revenue and capex data.

When possible, aggregate corporate green activity up to portfolio or fund level.

## 1. Classify climate solutions

Under IIGCC's definition of climate solutions, investors are recommended to utilise credible net zero pathways to identify and classify relevant activities, goods or services as climate solutions.

Investors can develop their own specific whitelists and/or use taxonomies to develop an approach (as described in the main section of the paper).

## 2. Identify relevant metrics for the asset class

Investors are recommended to assess a listed corporate's exposure to climate solutions through green revenues and/or green capex.

Investor practice varies, with some sourcing this information directly from data providers, whilst others may design their own methodologies. As this guidance stresses, the key is to maximise transparency and disclosure.

## 3. Aggregate to portfolio level

To provide a company, portfolio or fund level view for listed equity and corporate fixed income, investors can measure portfolio exposure and set climate solutions objectives using green revenues and green capex in several ways:

1. **Green revenue/capex ratio:** A percentage of a company's total revenues or total capex, respectively, aggregated to portfolio level based on portfolio weights.
2. **Financed green revenues/capex:** As a proportion of AUM, attributed to an investor based on the capital contribution across equity and debt.[23]

**Green revenue/capex ratio**

$$Green\ revenue\ ratio_P = \sum(\frac{Green\ revenues_C}{Total\ revenues_C}) \times Portfolio\ weight$$

$$Green\ capex\ ratio_P = \sum(\frac{Green\ capex_C}{Total\ capex_C}) \times Portfolio\ weight$$

*Where*:

- P is portfolio
- C is company
- Portfolio weight is the percentage of the portfolio help by the specific asset

**Financed green revenue/capex**

$$Financed\ green\ revenue_P = \sum(Green\ revenues_C \times (\frac{Outstanding\ amount}{EVIC_C})$$

$$Financed\ green\ capex_P = \sum(Green\ capex_C \times (\frac{Outstanding\ amount}{EVIC_C})$$

*Where*:

- P is portfolio
- C is company
- Outstanding amount is the market value of the investor's holding in the company
- EVIC is Enterprise Value Including Cash (company value)

**Example**

- Company A, a European utility with an EVIC of £1.75billion and £100m of green revenues
- Investor A, a pension fund with a multi-asset growth fund mandate invested in Company A across the capital structure with £50m in equity and £100m in debt

$$Financed\ green\ revenues = \$100m \times \frac{\$150m}{\$1.75m} = \mathbf{\$8.571m}$$

# Addendum B: Infrastructure – Renewable energy generation and storage

IIGCC published *'Climate Solutions Guidance for Renewable Energy Generation'* in November 2024 and added an addendum on storage in June 2025. For further detail, including on optional additional metrics, investors are encouraged to refer to that paper.

## Levers of influence[24]

The extent to which investors can apply the different levers below varies significantly across the type of investment (e.g., direct investment, segregated or pooled funds, etc.), type of capital provided (equity, debt or mezzanine), percentage of ownership/funding, and the circumstances of the asset as well as those of each individual investor. Investors are encouraged to make their best efforts to scale further investment to climate solutions.

### Setting internal direction and portfolio structure for alignment

- **Organisational awareness:** Allocate resources to understand and scale funding of instruments that channel capital to climate solutions.
- **Setting objectives:** Set a high-level ambition and – where feasible – a quantitative target to scale investment in renewable energy generation and storage assets. Consider the COP28 tripling renewable goal to guide objective-setting.
- **Capital market assumptions:** Integrate net zero scenarios into CMAs to improve how climate risk and opportunities are accounted for in strategic asset allocation models at the sectoral level.
- **Strategic asset allocation:** Identify renewable infrastructure as a sub-asset class to help direct capital towards clean energy assets.
- **Portfolio allocation decisions:** Allocating capital to funds, entities or projects that are specifically aimed at scaling these climate solutions activities and develop internal positive screening processes.
- **Innovative financial instruments:** Develop and invest in innovative financial instruments that support the scaling of climate solutions infrastructure assets, such as green infrastructure funds, infrastructure debt, green securitisations, etc.
- **Pool assets:** If relevant, consider pooling investments with other asset owners to identify lower fees, spread risk and ultimately allocate capital to infrastructure opportunities that may not be feasible for investment without collaboration.

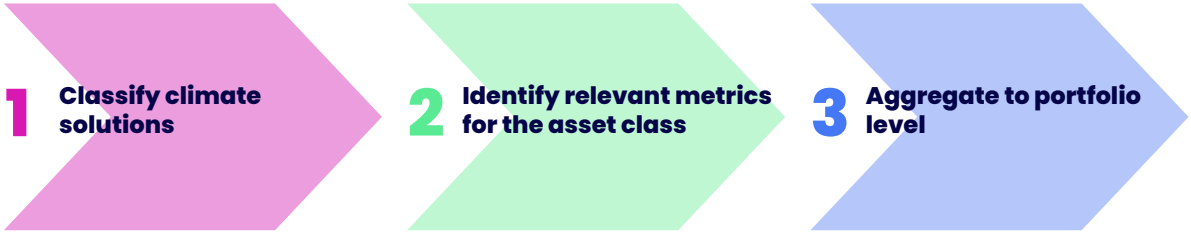
### Asset level assessment and engagement

- **Engagement and stewardship with assets:** Actively engaging with assets to encourage disclosure improvements across useful metrics. This includes participating in dialogues with company management, including covenant or contract arrangements tied to climate solutions performance when possible.
- **Engagement and stewardship with assets:** Remain engaged in reducing associated emissions, for example, by considering facility maintenance or the embodied emissions of these infrastructure assets.
- **Greenfield assets:** Engage to ensure there is a decarbonisation or management strategy to minimise emissions in the construction phase. When transitioning to operational status, engage to improve performance against NZIF's alignment criteria.
- **Additional metrics:** Assess and engage investments on alternative metrics, such as capacity factor which may provide useful detail on the efficiency of the asset.

### Influencing external environment to facilitate alignment

- **Engagement with service providers:** Engage service providers, such as data providers, to improve their climate solutions offering and the disclosure of metrics that facilitate assessing exposure, contribution, and communication.
- **Join capital mobilisation initiatives:** Contributing to the development of further guidance and collaborative engagement activities to scale allocation to climate solutions (e.g., UK EMDE Taskforce, Insurance Development Forum (IDF) in the UK, etc.).
- **Supporting climate policy:** Monitor and engage to develop clean energy investment incentives, such as the EU's Clean Industrial Deal which aims to drive the decarbonisation and competitiveness of energy-intensive industries and the clean technology sector.

## A 3-step approach to measuring exposure and contribution to climate solutions




Identify renewable energy generation and storage assets in the portfolio.

Assess contribution of the asset using capacity, technology type and AUM allocation data. Different data and metrics are recommended for primary and secondary markets investors.

When possible, aggregate or average metrics (depending on metric) up to portfolio or fund.

### 1. Classify climate solutions

Investors are recommended to identify the relevant assets in their portfolios, differentiating between primary and secondary market investments. The scope of this guidance is detailed below.

**Table 4: Scope of guidance**

| In scope | Not in scope |
|---|---|
| **The energy value chain** | |
| ✓ Generation<br>✓ Storage (separate methodology) | ✖ Transmission and distribution<br>✖ Demand side/end usage<br>✖ Energy efficiency measures |
| **Energy technologies** | |
| ✓ Renewable energy generation<br>✓ Storage | ✖ Energy generation from non-renewable sources |

Investors are recommended to use the International Renewable Energy Agency (IRENA) Energy Taxonomy[25] (section 200000)[26] to classify renewable energy generation technology, and to provide a breakdown of the portfolio/fund level metrics (step 3) by technology. This taxonomy is recommended on the basis that it is an internationally recognised classification of renewable energy technologies specifically.

Investors are encouraged to disclose their approach to classifying renewable energy generation technologies, as well as explain any deviations from the IRENA taxonomy.

## 2. Identify relevant metrics for the asset class

Installed capacity is proposed as the priority metric for measuring exposure and contribution, and objective-setting, based on data availability and aggregability. Investors are encouraged to disclose a breakdown of total installed capacity by technology (at minimum) and by geography (when possible, noting data and reporting challenges).

Primary capital plays an important role in financing the construction of new renewable energy generation and storage assets. While the secondary markets may not provide new capital directly to projects, they also have an important role to play as part of the ecosystem that supports primary finance, as stewards of these projects during their operational phase.

**Table 5: Metrics for renewable energy generation assets**

| Primary markets | |
|---|---|
| **Priority metric for measuring portfolio exposure and objective-setting** | Cumulative total financed installed capacity in megawatts (MW) or gigawatts (GW) as appropriate, broken down by technology and geography when possible |
| **Supportive disclosures** | ▪ Average capacity factor across financed assets (unitless ratio)<br>▪ Financed capacity adjusted by capacity factor per asset<br>▪ Cumulative total financed generation (measured in kilowatt-hour (kWh) or megawatt hour (MWh), as appropriate)[27]<br>▪ Pipeline metrics, for example total capital or %AUM allocated to renewable energy project development (e.g. Devex stage) in the development, design and planning of projects pre-Commercial Operation Date (COD). |
| **Secondary markets** | |
| **Priority metric for measuring portfolio exposure and objective-setting** | Annual financed installed capacity (by exposure to assets through secondary capital) in MW or GW as appropriate.<br>▪ This should be reported on an end of year basis to reflect activity from the previous 12 months.<br>▪ Not to be aggregated between multiple investors |
| **Supportive disclosures** | ▪ Average capacity factor across financed assets (unitless ratio)<br>▪ Cumulative total financed generation (measured in kilowatt-hour (kWh) or megawatt hour (MWh), as appropriate)[28] |

## 3. Aggregate to portfolio level

Investors can attribute this activity using the following approach, which draws on the project finance attribution methodology under the Partnership for Carbon Accounting Financials (PCAF) standard.

This approach allows investors to attribute their involvement to financing capacity and generation[29] - considering both debt and equity – while avoiding double counting or overstating. The PCAF project finance methodology should be referred to for contextual notes, including treatment of co-investments.[30]

**Financed renewable energy capacity**

$$Financed\ capacity = \sum Capacity_p \times \frac{Outstanding\ cash\ amount\ of\ investment_p}{Initial\ cost\ of\ investment_p}$$

*Where*:

- P is the project/ asset solely
- Capacity is the installed capacity of the generation/ storage asset in kWh/mWh
- Outstanding cash amount is the cash amount of the loan/ investment
- Initial cost of investment is the initial price paid for the investment

**Financed storage capacity[31]**

Investors should follow the guidance on reporting across primary and secondary markets outlined above on page 23 of this guidance.

$$Financed\ storage\ capacity = \Sigma \left( \text{Capacity}\ x\ \frac{Cash\ invested^{32}}{CAPEX} \right)$$

*Where*:

- **Capacity** is the installed capacity of the storage asset in MWh
- **Outstanding cash amount of investment** is the point in time amount invested
- **CAPEX** is the expenditure on capital items including installation, development[33] and permitting costs of the storage asset (e.g. including grid connection cost, battery cells, balance of plant etc.)

# Endnotes

1 TCFD (2017), Recommendations of the Task Force on Climate-related Financial Disclosures
2 IIGCC (2023), Climate Solutions Guidance for Listed Equity and Corporate Fixed Income
3 IIGCC (2024), Climate Solutions Guidance for Infrastructure: Renewable Energy Generation and Storage
4 Note, addenda will continue to be updated to this document in H2 2025 as guidance is published.
5 Investors are welcome to develop approaches to climate solutions that encompass other objectives.
6 This definition is based on the initial definition proposed in IIGCC's Listed Equity & Corporate Fixed Income Guidance, and has since been refined through working group discussion based on the evolution of this concept in the wider market.
7 Pages 162-165 of IIGCC's Implementation Guidance provide a list of net zero pathways investors may wish to consider using. Investors are recommended to disclose the relevant pathway(s) that has been utilised and acknowledge that pathways continue to evolve and be developed.
8 IIGCC members considered two potential principles that could act as guardrails for investments to be considered transition finance: a) intentionality (the investment has a clear objective to deliver transition outcomes), and b) accountability (there is a mechanism in place to ensure that outcome is delivered).
9 The latter is compatible with the initial guidelines for transition finance set out in the Transition Finance Market Review, and GFANZ's approach to transition finance which includes climate solutions as a transition finance category.
10 This is currently the subject of the UK Transition Finance Council.
11 IIGCC's Investor expectations of EU sustainable finance helps inform investor advocacy and engagement on EU sustainable finance issues and promote a supportive policy environment for scaling investment in climate solutions.
12 Note this is an evolution of the 4-step approach originally developed for IIGCC's Climate Solutions Guidance for Listed Equity and Corporate Fixed Income (2023). See Addendum A for an updated 3-step version of this guidance.
13 Note this is an IIGCC-suggested approach, not currently supported by the regulator.
14 Please note, this is not an exhaustive list. Other metrics are available for investors to use within their net zero strategies and investment decision-making, such as the net zero deviation index and carbon impact ratio. There are also a wide range of metrics relating to wider impact factors, including affordability, availability, economic growth, sustainability and just transition, which may be considered. Investors are encouraged to disclose the metrics they use and how they are integrated into strategy.
15 Avoided Emissions Platform (2025), Avoided Emissions Platform
16 WBCSD (2024), Avoided Emissions
17 Partnership for Carbon-Accounting Financials (2024), New methods for public consultation
18 See the 'climate solutions and transition finance' section on page 5 for more details on differentiating between climate solutions and transition finance.
19 IIGCC (2025), Emerging Markets guidance (to be published on 6 June).
20 Note when referring to the existing guidance document, some updates have been made that are clarified in this addendum version. Most notably, this is the removal of step 2, the 'identification of decarbonisation contribution type'; this is a result of the most up-to-date definition (see 'defining climate solutions' section) with a renewed focus on the net zero destination.
21 IIGCC (2023), Improving net zero data provision: six asks of data vendors
22 IIGCC (2025), Index investing for the net zero transition
23 See page 37 in IIGCC's Climate Solutions Guidance for Listed Equity and Corporate Fixed Income for advantages and disadvantages of the portfolio level metrics.

24 Guidance is available for all infrastructure assets in the NZIF component for infrastructure and private markets infrastructure

25 International Renewable Energy Agency (2024), Energy taxonomy: Classifications for the energy transition

26 If not suitable, investors are recommended to indicate high-level details of their classification.

27 See calculation 2 on page 12 of IIGCC's Guidance for Renewable Energy Infrastructure

28 See calculation 2 on page 12 of IIGCC's Guidance for Renewable Energy Infrastructure

29 See existing guidance document.

30 PCAF (2024), The Global GHG Accounting and Reporting Standard for the Financial Industry

31 Please see the Climate Solutions Guidance for Renewable Energy Generation for further context and details regarding storage capacity.

32 Current exposure across debt and equity (i.e. amount of cash currently invested attributable to the investor).

33 Where known, disclose any exclusions or estimates, for example where development costs are not known.

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