

TPT Transition Plan
Taskforce

Electric Utilities & Power Generators Sector Guidance

April 2024



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Nina Pimblett (Sector Guidance Lead)

Ben Gilbey (Food & Beverage, Electric Utilities & Power Generators, Metals & Mining, Sector Summary)

Nathan Chan (Banks)

Saad Moazam (Oil & Gas)

Sasha Polikarpova (Asset Managers, Asset Owners)

Abigail Bernabe (Sector Summary)

Alexander Schlatter (Sector Summary)

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Dr Ben Caldecott (Co-Head)

Kate Levick (Co-Head)

Jacques Morris (Team Leader)

Ira Poensgen (Technical Lead)

Helen Civil

Sophie Collerton

Sophie English

Max Rose

Kate Ryan



Contents

ABOUT THE TPT	5
1. INTRODUCTION	6
The TPT’s Sector Guidance	6
How this Guidance fits within the suite of TPT Guidance	7
Sector Context	11
Scope of the EUPG Guidance	12
A strategic and rounded approach to EUPG Transition Plans	14
2. INTERPRETING THE TPT DISCLOSURE FRAMEWORK FOR THE EUPG SECTOR	19
GLOSSARY	34

About the TPT

The United Kingdom (UK) has set itself ambitious and legally binding targets to cut greenhouse gas (GHG) emissions to net zero by 2050, with binding interim targets. The UK has also pledged at UN climate negotiations to cut emissions by at least 68% by 2030.¹

In October 2021, the UK government published the Greening Finance Roadmap, signalling that it intends to strengthen new and existing sustainability reporting requirements for companies, including publication of climate transition plans.

At COP26, the UK Chancellor further committed to work towards the UK becoming the world's first Net Zero-aligned Financial Centre and ensuring that financial flows shift towards supporting a net zero economy. The Chancellor also set out that the UK will move towards making publication of transition plans mandatory.

The Transition Plan Taskforce (TPT) was launched by HM Treasury in March 2022 with a mandate to bring together leaders from industry, academia, and regulators to develop good practice for transition plan disclosures for finance and the real economy. In addition, the TPT has been tasked to engage with non-UK governments and

regulatory networks to support conversations on how to build common baselines and principles for transition planning. This has included the Financial Stability Board, the International Organization of Securities Commissions (IOSCO) and the Network for Greening the Financial System (NGFS), as well as the G7, G20, UNFCCC and the Coalition of Finance Ministers for Climate Action. The TPT's Disclosure Framework complements, and builds on, the ISSB's final Standards IFRS S1² and S2³ and draws on GFANZ's framework and guidance for credible, comprehensive, and comparable net zero transition planning.

In the 2023 Green Finance Strategy, the UK government committed to consult on introducing requirements for the UK's largest companies to disclose their transition plans if they have them.⁴ In addition, the Financial Conduct Authority (FCA) has signalled its intention to consult on strengthening requirements for transition plan disclosures in line with the TPT Disclosure Framework, alongside its consultation on implementing UK-endorsed ISSB Standards.⁵

In January 2024 the TPT's mandate was extended to 31 July 2024, with the possibility of a further 3-month extension in order to contribute to the work of the new Transition Finance Market Review.

At COP26, the UK Chancellor further committed to work towards the UK becoming the world's first Net Zero-aligned Financial Centre and ensuring that financial flows shift towards supporting a net zero economy

1) See **UK Climate Change Act, 2008** and the **UK's Nationally Determined Contribution** as updated September 2022.

2) International Financial Reporting Standards (IFRS), **IFRS S1 General Requirements for Disclosure of Sustainability-related Financial Information**, 2023.

3) International Financial Reporting Standards (IFRS), **IFRS S2 Climate-related Disclosures**, 2023.

4) UK Government, **Mobilising green investment: 2023 green finance strategy**, 2023.

5) Financial Conduct Authority (FCA), **Primary Market Bulletin 45**, 2023.

1. INTRODUCTION

The TPT's Sector Guidance

In October 2023, the TPT published the final **Disclosure Framework** and a **suite of Implementation Guidance**. Preparers of transition plans should first read these products.

The TPT's Terms of Reference also gave the TPT a mandate to produce sectoral guidance for both financial sector and real economy companies. To deliver this the TPT has published two types of sector guidance to complement the TPT Disclosure Framework: the TPT Sector Summary and the TPT Sector Deep Dives.

The TPT Sector Summary was published online in October 2023 and was open for comment until 24 November 2023. This Guidance provides a high-level overview of decarbonisation levers and metrics & targets for an extensive number of financial and real economy sectors, leveraging existing third-party guidance. An updated version of the TPT Sector Summary was published in April 2024.

The TPT Sector Deep Dive Guidance provides sector-specific guidance for preparers to interpret the Disclosure Framework for a small number of sectors. In its **Status Update** in July 2023, the TPT confirmed these sectors as:

- **Asset Managers;**
- **Asset Owners;**
- **Banks;**
- **Electric Utilities & Power Generators;**
- **Food & Beverage;**
- **Metals & Mining;** and
- **Oil & Gas.**

These sectors were chosen given each sector's GHG emissions, its need for (or its provision of) transition finance in the UK context, and the quality of existing guidance available in the market. In making its selection the TPT sought to identify sectors for which additional guidance would be beneficial in kick-starting transition plan disclosures, while also identifying opportunities to leverage existing sectoral guidance and consolidate it into the context of the Disclosure Framework.

In November 2023, the TPT published the Sector Deep Dive Guidance for consultation. The consultation ran until 29 December 2023. This document is the final version of this Guidance.

The materials produced by the TPT reflect a synthesis of best practice at the time of publication. They do not constitute financial, legal, or other professional advice and should not be relied upon as such. Nothing in the EUPG Guidance is intended to override, substitute, or alter existing legal or regulatory requirements, including, without limitation, duties of the entity's directors and senior managers, and the entity's constitutional documents. Nothing in the EUPG Guidance should be understood to require the disclosure of commercially sensitive information.

How this Guidance fits within the suite of TPT Guidance

In October 2023, the TPT published its final **Disclosure Framework**, as part of a wider suite of Implementation Guidance, including:

- Guidance to help preparers **explore the Disclosure Recommendations**, including case studies;
- Guidance on the **transition planning cycle**, including case studies;
- Technical mapping to the final **Climate-Related Disclosures Standard (IFRS S2) issued by the International Sustainability Standards Board (ISSB)** and the **TCFD's Recommendation and Guidance**;
- A comparison of the TPT Disclosure Framework to the **European Sustainability Reporting Standards (ESRS)**; and
- **Legal considerations for preparers of transition plans using the TPT Disclosure Framework.**

On 9 April 2024, the TPT published the suite of final Sector Deep Dive alongside:

- **Opportunities and challenges relating to the use of private sector transition plans in emerging markets and developing economies**; and
- the final **Transition Planning Cycle Guidance** document which includes new content on adaptation.

The TPT Working Groups on Adaptation, Just Transition and Nature, and the TPT Advisory Group on SMEs, also published advisory papers on 9 April 2024. These papers are independent of the core suite of TPT documents:

- **Building Climate-ready Transition Plans: Including adaptation and resilience for comprehensive Transition Planning approaches**, an advisory paper from the TPT Adaptation Working Group;
- **The Future of Nature in Transition Planning**, an advisory paper from the TPT Nature Working Group;
- **Putting people at the heart of transition plans: key steps and metrics for issuers**, an advisory paper from the Just Transition Working Group; and
- **Considerations on SMEs and transition plans**, an advisory paper from the SME Advisory Group.

The Disclosure Framework contains the foundational disclosure recommendations which apply to all sectors, as shown in Figure 1. It is designed to complement, and build on, the ISSB's final Standards IFRS S1⁶ and S2,⁷ as well as drawing on GFANZ's framework and guidance for credible, comprehensive, and comparable net zero transition planning and uses the same core components and structure. This means that the TPT Framework and GFANZ are both part of an aligned, consistent effort to support the development of private sector transition plans.

Preparers should first read the Disclosure Framework to understand the TPT's key concepts.

6) International Financial Reporting Standards (IFRS), **IFRS S1 General Requirements for Disclosure of Sustainability-related Financial Information**, 2023.

7) International Financial Reporting Standards (IFRS), **IFRS S2 Climate-related Disclosures**, 2023.

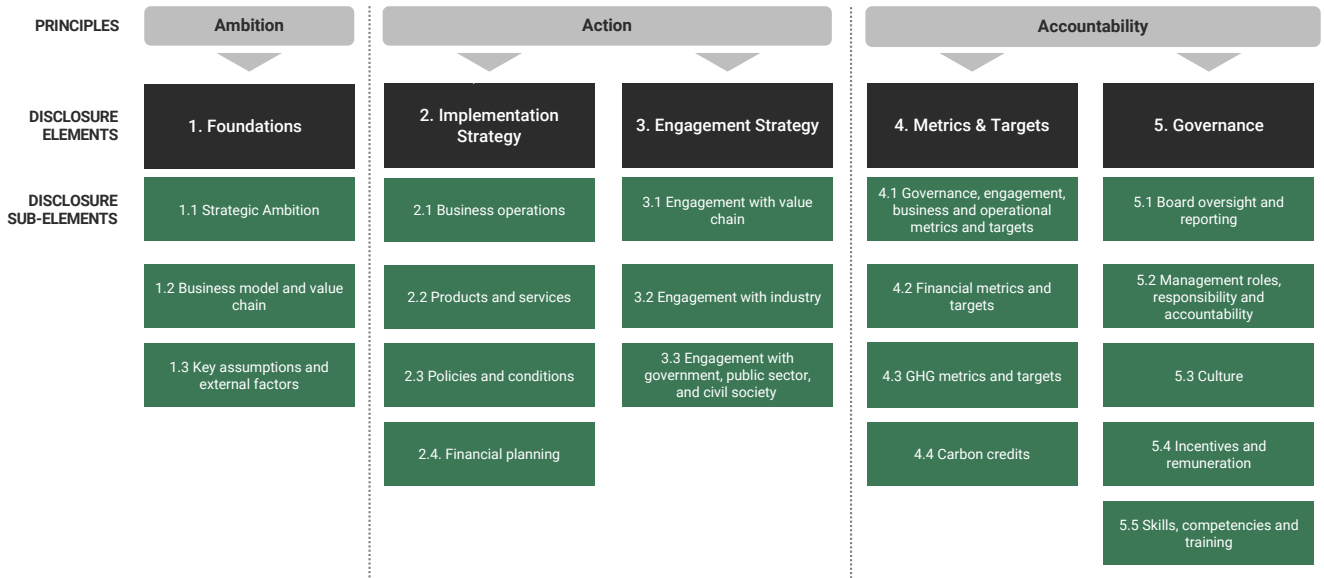


Figure 1: The TPT Disclosure Framework

This EUPG Guidance adds further depth and detail for preparers of transition plans that are operating in the EUPG sector.

Part One of this Guidance (Introduction) introduces the sector context and how the Guidance is to be used alongside the Disclosure Framework and wider TPT Guidance. Part Two (Interpreting the Disclosure Framework for the EUPG sector) provides suggestions of disclosures and further guidance and resources for entities to consider.

The hierarchy of TPT guidance within the overall transition plan disclosures landscape is set out in Figure 2. In jurisdictions where ISSB Standards are to be adopted, preparers will likely begin by consulting IFRS S1 and S2 for wider climate and sustainability disclosures. IFRS S2 contains disclosure requirements relevant to transition planning. The TPT Disclosure Framework then complements, and builds on, ISSB. The TPT’s suite of Implementation Guidance, as well as transition plan guidance materials published by GFANZ, may further help preparers develop their plans. The EUPG Guidance then interprets the Disclosure Framework for the EUPG sector.

The Transition Plan Disclosures Landscape: how preparers can use the outputs of ISSB, GFANZ, and TPT

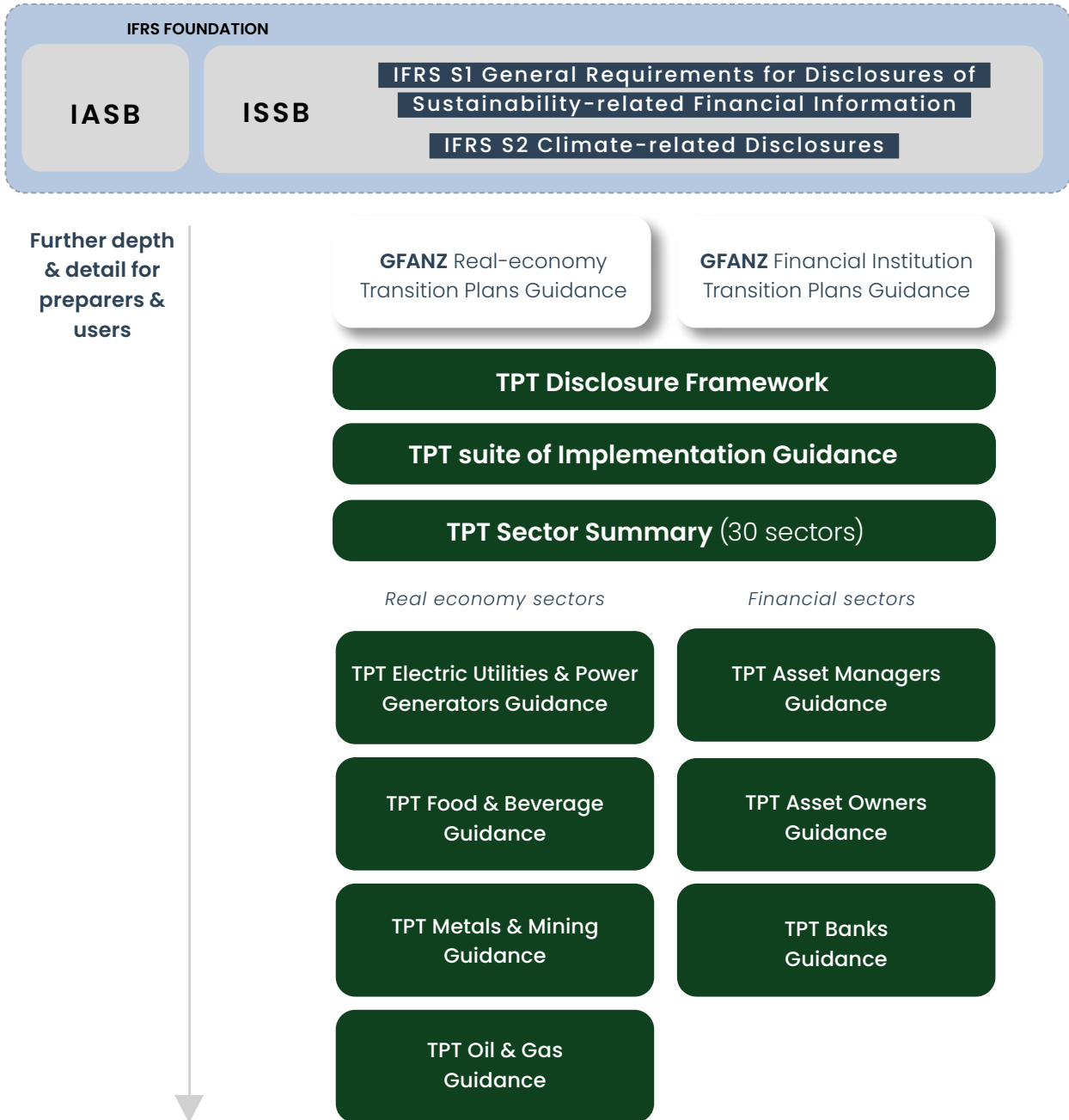


Figure 2: The Transition Plan Disclosures Landscape

Using the EUPG Guidance to interpret the Disclosure Framework

The TPT Disclosure Framework (see Figure 1) breaks down five Elements into 19 Sub-Elements, each of which is supported by Disclosure Recommendations. Where Recommendations are introduced using **“shall”**, this indicates that the TPT views these as relevant disclosures for all good practice transition plans, subject to a materiality assessment. Some Sub-Elements also contain examples of additional disclosures that an entity may consider, but which may not be relevant to all entities. These are introduced using **“may”** or **“e.g.”** and are not intended to be comprehensive. This means an entity may consider disclosing other information under these Sub-Elements.

Part Two of this Guidance supports preparers and users to interpret the Disclosure Framework by setting out suggestions of disclosures that entities **“should consider disclosing”**. None of the suggestions in this Guidance replace the Disclosure Recommendations in the Disclosure Framework; they are complementary and intended to help preparers interpret the Disclosure Framework. As in the Disclosure Framework, suggested disclosures are not intended to be comprehensive, and an entity may consider disclosing other information under these Sub-Elements where deemed material to the decisions of primary users of the entity’s general purpose financial reports. These suggestions of disclosures are accompanied by further considerations and references to external guidance that preparers may find useful, titled **“When disclosing, an entity may additionally consider:”**.

The TPT Disclosure Framework and Sector Guidance, including this EUPG Guidance, use the ISSB’s definition of a climate-related transition plan, and apply the same approach to materiality and the wider set of concepts, definitions, and corporate reporting norms that are set out in the ISSB’s General Requirements standard (IFRS S1)⁸ (see Appendix 1: Reporting of transition plans in the TPT Disclosure Framework). In addition to including transition plan disclosures as part of its general purpose financial reports, the TPT regards it as good practice for an entity periodically to publish its transition plan in a single standalone document that sits alongside its general purpose financial reports.

Photo Pok Rie, Pexels.com

⁸ International Financial Reporting Standards (IFRS), **IFRS S1 General Requirements for Disclosure of Sustainability-related Financial Information**, 2023.

Sector Context

The EUPG sector has a critical role to play in enabling the achievement of the Paris Agreement goals, and limiting global warming to 1.5°C with limited or no overshoot. The EUPG sector is currently a substantial source of GHG emissions, accounting for over one-third of global energy-related CO₂ emissions in 2021.⁹

Electrification is key for decarbonising sectors across transport, buildings and industry, and therefore the EUPG sector needs to be among the first sectors to decarbonise, to enable the decarbonisation of other sectors. Significant expansion of electricity infrastructure will also be required to meet increased electricity demand as other sectors electrify. The International Energy Agency's (IEA) Net Zero Emissions by 2050 Scenario expects electricity generation to be net zero globally by 2040 and be supplying almost half of total global energy consumption.¹⁰ Furthermore, the IEA Net Zero emissions scenario expects that electricity generation activities will be net negative emissions by 2050, (e.g. through bio-energy and carbon capture and storage).

Climate resilience and adaptation are critical to EUPG sector transition plans for two reasons. Firstly, the sector has high exposure to climate risks, and its role in providing electricity to many other sectors means that the economic and societal implications of these risks will cascade through the economy. Physical climate impacts can affect all parts of the electricity system. For example, hydro-electric and nuclear power plants operations may be affected by changes to the flows and availability of water, and extreme heat may drive an increased demand for cooling.

Secondly, electricity assets are long-lived, with planned lifetimes of decades. Planning needs to account not only for the climate today but also for the climate of the future. For example, assumptions about daily temperatures, wind speeds, precipitation all have profound implications for the technical and the economic viability of assets over their lifetimes. Given the limited flexibility and higher costs involved

in making changes to assets after their deployment, planning should consider the future risks and sequencing of adaptation options.

Transition planning can help the EUPG sector to meet these challenges at the speed and scale required. A transition plan can provide a blueprint for strategic delivery, equipping capital markets with the information needed to finance the transition. Disclosure also allows an entity to disclose whether and how it has taken into account the impacts and dependencies of its transition plan on its stakeholders, society, the economy, and the natural environment, throughout its value chain, that may give rise to sustainability-related risks and opportunities

It is estimated that 760 million people lived without access to electricity in 2022, and under the International Energy Agency's (IEA) Stated Policies Scenario, 672 million will remain without access in 2030.¹¹ The role of the EUPG sector is critical in achieving Sustainable Development Goal (which calls for access to affordable, reliable, sustainable, and modern energy for all),¹² and the transition to a low-GHG emissions and climate-resilient economy. This goal should be met in a just manner not only for end users of electricity, but also for the communities providing the resources necessary for electricity sector decarbonisation (e.g. critical minerals).

The transition of the EUPG sector has potentially profound implications for nature and may help to achieve the goals of the Global Biodiversity Framework.¹³ Existing EUPG assets already have significant impacts and dependencies on nature. Poorly designed expansion of electricity infrastructure could increase nature loss, due to the destruction of terrestrial, freshwater and marine ecosystems, in turn reducing the stability of operating environments and increasing risks such as flooding. Conversely, well designed transition plans can improve ecosystem functioning and can increase the efficiency and resilience of electricity infrastructure.

9) International Energy Agency (IEA), **World Energy Outlook 2022: Outlook for electricity**, 2022.

10) International Energy Agency (IEA), **Net Zero by 2050: A Roadmap for the Global Energy Sector**, 2021.

11) International Energy Agency (IEA), **Access to Electricity**, website as of 2023.

12) UN Department of Economic and Social Affairs, **Sustainable Development Goals**, website as of 2023.

13) Convention on Biological Diversity, **Kunming-Montreal Global Biodiversity Framework**, 2023

Scope of the Electric Utilities & Power Generators Guidance

The EUPG Guidance is applicable to all entities in the EUPG industry, as defined by IFRS:

*“The Electric Utilities & Power Generators [EUPG] industry is made up of companies that generate electricity; build, own, and operate transmission and distribution lines; and sell electricity. Utilities generate electricity from a number of different sources, commonly including coal, natural gas, nuclear energy, hydropower, solar, wind, and other renewable and fossil fuel energy sources”.*¹⁴

This sector guidance seeks to provide recommendations and advice for entities involved in electricity generation, transmission and distribution, and electricity retail, but it is acknowledged that not all of these activities will be relevant to all entities. Entities should apply the TPT’s Sector Guidance as appropriate to their specific business model. In instances in which an entity has multiple operations, this may result in an entity using more than one piece of Sector Guidance to support the interpretation of the TPT Disclosure Framework.

This guidance is focused exclusively on electricity and does not address other business activities that an electric utility or power generator might be involved in, such as distribution or sale of gas for heat. The exclusion of gas utility activities is due to the significant differences in operating models and decarbonisation pathways with electric utility activities. Entities with gas utility activities may refer to the TPT Sector Summary for Gas Utilities & Distributors.¹⁵ Electrification of heat (e.g. via heat pumps), is likely to play a significant role going forward in the decarbonisation of buildings and so electric utilities’ role in facilitating heat decarbonisation is considered.

Photo Pexels.com

¹⁴) International Financial Reporting Standards (IFRS), **IFRS S2: Industry-based Guidance on implementing Climate-related Disclosures: Volume 34 – Gas Utilities & Distributors**, 2023.

¹⁵) Transition Plan Taskforce (TPT), **Sector Summary**, 2024..

Sub-Elements of the Disclosure Framework addressed in this Guidance

The Disclosure Framework sets out 19 Sub-Elements supported by a series of Disclosure Recommendations. While entities are expected to disclose against all Sub-Elements, only 13 were selected for sector-specific interpretation in this Guidance. Sub-Elements were selected considering the scope for additional sector specificity to build on the Disclosure Framework, and the breadth and depth of existing sector-specific guidance.

For Sub-Elements where additional sector-specific guidance is provided, this may only apply to some Disclosure Recommendations of the Disclosure Framework. Suggestions for disclosures and additional considerations are not intended to be comprehensive. An entity should disclose other information under these Sub-Elements where deemed appropriate.

The Disclosure Recommendations in the Disclosure Framework for the remaining six Sub-Elements were deemed not to require further sector-specific detail or interpretation. No additional sector-specific guidance has been provided for these Sub-Elements.

The Sub-Elements selected for interpretation in this Guidance are set out in Figure 4 below.

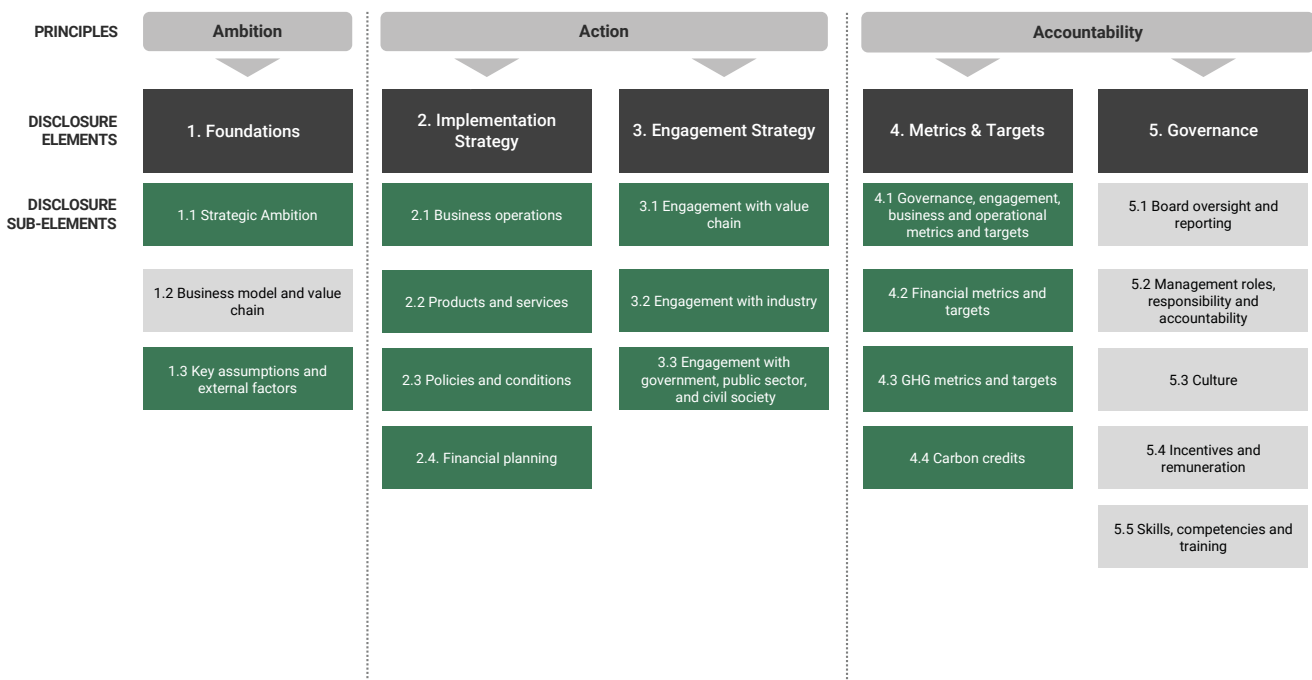


Figure 3: Sub-Elements selected for interpretation in this Guidance



A Strategic and Rounded Approach to EUPG Transition Plans

The TPT Disclosure Framework recommends that entities, including EUPG entities, take a strategic and rounded approach to transition planning, considering three inter-related channels:

- 1. Decarbonising the entity:** Given the EUPG sector's substantial direct contribution to GHG emissions, the EUPG guidance emphasises the need to disclose actions to reduce an entity's Scope 1 and 2 emissions. This may be achieved both through reducing unabated fossil fuel power production, and through increasing low and zero carbon generation capacity. Scope 3 emissions sources in the EUPG sector include purchased electricity sold in retail activities, upstream fossil fuel production and capital goods made of emissions intensive materials like steel or copper.¹⁶ In order to reduce their Scope 3 emissions, EUPG entities may utilise their procurement power and engage with their upstream value chain.
- 2. Responding to the entity's climate-related risks and opportunities:** The EUPG sector faces substantial transition and physical risks. For example, power generators using coal for fuel face transition risks arising from carbon pricing and a reduction in coal demand, and physical risks arising from increased water stress that limits the water available for use by power generation assets.¹⁷ In addition, the transition will present the EUPG sector with climate-related opportunities, for example new technologies and increased demand for electrification. EUPG transition plans should consider how they are responding to these risks and opportunities.
- 3. Contributing to an economy-wide transition:** The EUPG sector can accelerate the decarbonisation of the whole economy, by providing lower carbon electricity production and by supporting the electrification of other sectors. This guidance therefore considers the role of transmission and distribution infrastructure, as well as engagement with other industries, in enabling electrification.

Considering all three inter-related channels in designing their transition plan can help EUPG entities to protect and enhance long-term value, and to avoid the unintended consequences of an approach which exclusively focuses on achieving GHG emissions or adaptation targets within an entity's own operations and portfolio.

Taking a strategic and rounded approach helps EUPG entities consider a wide range of decarbonisation levers available to them and, where possible, avoid a strategy of 'paper decarbonisation', which is characterised by actions that are taken to green an entity's balance sheet in a way that may not necessarily contribute to the actual decarbonisation of the economy.

Photo Sui Yun, Unsplash.com

¹⁶ World Business Council for Sustainability Development (WBCSD), *Setting science-based targets: A guide for electric utilities*, 2020.

¹⁷ Caldecott et al., *Stranded Assets and Thermal Coal*, 2016.

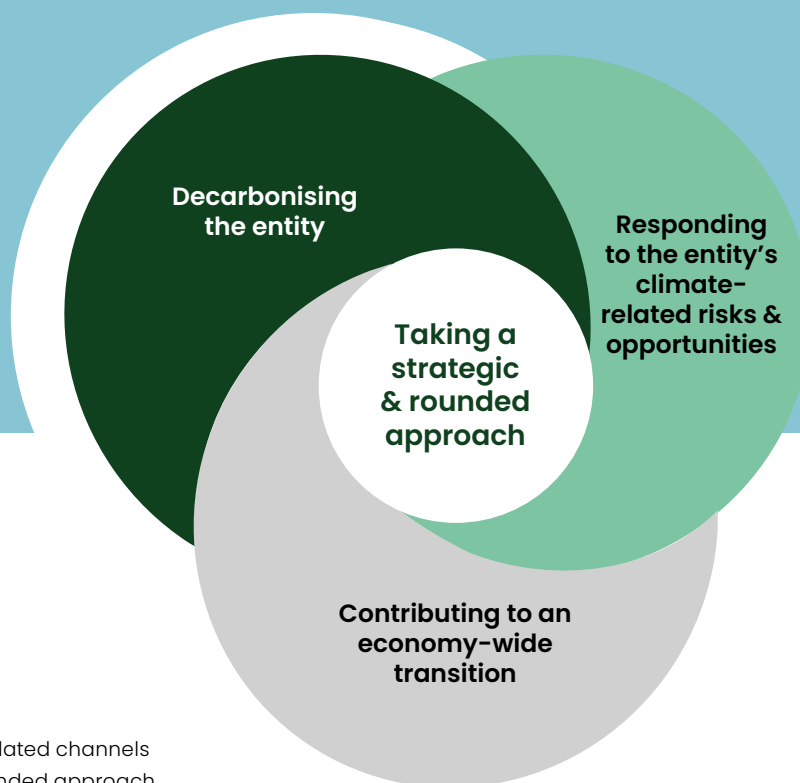


Figure 4: Three inter-related channels for a strategic and rounded approach

Impacts and dependencies of the transition plan on stakeholders, society, the economy and the natural environment

The Disclosure Framework sets out how disclosures relating to climate-resilience, nature and society are part of a transition plans. Sub-Element **1.1 Strategic Ambition**. of the TPT Disclosure Framework states:

An entity shall disclose the **Strategic Ambition** of its transition plan. This shall comprise the entity's objectives and priorities for responding and contributing to the transition towards a low-GHG emissions, climate resilient economy, and set out whether and how the entity is pursuing these objectives and priorities in a manner that captures opportunities, avoids adverse impacts for stakeholders and society, and safeguards the natural environment.

The TPT Disclosure Framework recommends that an entity shall disclose whether and how it has identified, assessed and taken into account the impacts and dependencies of the transition plan on its stakeholders (e.g. its workforce, value chain counterparts, customers), society (e.g. local communities), the economy, and the natural environment, throughout its value chain, that may give rise to sustainability-related risks and opportunities (**see DF 1.1.b**).

This section outlines how these impacts and dependencies may occur in the EUPG sector. This can inform specific disclosures under **1.1 Strategic Ambition**.

Impacts and dependencies: the natural environment

The transition plan of entities in the EUPG sector may impact and depend on the natural environment and many of the ecosystem services that it provides. For example, global electricity demand is set to significantly increase, and under the IEA Net Zero Emissions scenario it will double by 2050.¹⁸ An expansion of electricity infrastructure to meet demand at this scale would be likely to increase the impact of this sector on nature.

The impacts and dependencies of an entity's transition plan in the EUPG Sector may give rise to nature-related risks and opportunities, both in its direct operations and supply chain. For example, an entity may find that infrastructure development without careful spatial planning may lead to ecosystem change or species loss, and subsequently reputational and litigation risk. It may also find that taking actions to safeguard nature and contributing to nature positive outcomes can mitigate these risks and create new opportunities.

The Taskforce on Nature-related Financial Disclosure's (TNFD) LEAP methodology provides valuable guidance to assess an entity's impacts and dependencies on the natural environment and associated risks and opportunities.¹⁹ Additional TNFD sector guidance is provided for the EUPG sector and provides an instructive overview of impacts and dependencies by technology type (e.g. wind, thermal, transmission and distribution).²⁰ Entities may also refer to further tools for guidance, including the *ENCORE* tool,²¹ the SBTN's *Materiality Screening Tool* under 'Step 1: Assess',²² and IUCN's *Renewable energy and nature resources*.²³

The TPT therefore recommends that entities disclose whether and how they identify, assess and take into account the impacts and dependencies of their transition plan, and pursue their objectives and priorities in a manner that safeguards the environment. When disclosing, entities should particularly consider the impacts and dependencies related to new projects and infrastructure, as well as phaseout and decommissioning of fossil fuel assets. See Figure 4 for an illustrative example of impacts and dependencies of an EUPG entity's transition plan.

Entities in the EUPG sector may further find it helpful to refer to the:

- Exploring Natural Capital Opportunities, Risks and Exposure's *ENCORE* tool;²⁴
- International Union for Conservation of Nature's (IUCN) *Renewable energy and nature resources*;²⁵
- Science-based Targets Network's (SBTN), *Target-setting Tools and Guidance* (see *Materiality Screening Tool* under Step 1: Assess);²⁶ and
- Taskforce on Nature-related Financial Disclosures' (TNFD), *Guidance on the identification and assessment of nature-related issues: The LEAP approach*,²⁷ and *Draft sector guidance: Draft sector guidance – Electric utilities and power generators*.²⁸

18) International Energy Agency (IEA), **Net Zero by 2050: A Roadmap for the Global Energy Sector**, 2021.

19) Taskforce on Nature-related Financial Disclosures (TNFD), **Guidance on the identification and assessment of nature-related issues: the LEAP approach**, 2023.

20) Taskforce on Nature-related Financial Disclosures (TNFD), **Draft sector guidance – Electric utilities and power generators**, 2024.

21) Exploring Natural Capital Opportunities, Risks and Exposure (ENCORE), **ENCORE tool**, website as of 2024.

22) Science Based Targets Network (SBTN), **Step 1: Assess**, website as of 2024.

23) International Union for Conservation of Nature and Natural Resources (IUCN), **Renewable energy and nature**, website as of 2024.

24) Exploring Natural Capital Opportunities, Risks and Exposure (ENCORE), **ENCORE tool**, website as of 2024.

25) The International Union for Conservation of Nature and Natural Resources (IUCN), **Renewable energy and nature**, website as of 2024.

26) Science Based Targets Network (SBTN), **Step 1: Assess**, website as of 2024.

27) Taskforce on Nature-related Financial Disclosures (TNFD), **Guidance on the identification and assessment of nature-related issues: The LEAP approach**, 2023.

28) Taskforce on Nature-Related Financial Disclosures (TNFD), **Draft sector guidance – Utilities and Gas**, 2024.

Impacts and dependencies on stakeholders, society and the economy

An entity's transition plan may impact, and is dependent on, its stakeholders (e.g. its workforce, value chain counterparts, customers), society (e.g. local communities) and economy (e.g. availability of skills, affordability of inputs). Impacts and dependencies of an EUPG entity's transition plan on stakeholders, society and the economy can emerge in multiple ways, for example:

- the "transition-out" of high carbon electricity production may create risks of job losses and relocations, stranded communities and changes in skill requirements;
- the "transition-in" to zero carbon electricity generation and electrification, may depend on re-skilling, community consent for infrastructure and create supply chain impacts linked to an increased demand for new specific resources;
- the transition may create positive impacts by improving electricity access, security of supply and affordability, particularly for the millions of people around the world lacking access to electricity.

The impacts and dependencies of an entity's transition plan may give rise to sustainability-related risks and opportunities. For example, an entity in the EUPG sector may find that the impacts and dependencies of its transition plan expose the entity to risks of labour strikes, as well as reputational and political risks. It may also find that taking a just transition approach, including by taking steps to match progress on decarbonisation with security of supply and affordability, can help mitigate these risks and present opportunities, including a continued license to operate in this highly regulated sector.²⁹

The TPT therefore recommends that entities in the EUPG sector disclose whether and how they identify, assess and take into account the impacts and dependencies of their transition plan, and how they pursue their objectives and priorities in a manner that captures opportunities and avoids adverse impacts for stakeholders and society. See Figure 4 for an illustrative example of impacts and dependencies of an EUPG entity's transition plan stakeholders, society and the economy.

In doing so, entities in the EUPG sector may find it helpful to refer to:

- The Council for Inclusive Capitalism's *Just Transition Framework for Company Action*,³⁰ and
- World Business Council for Sustainable Development's (WBCSD), *Achieving a just transition in the energy system*.³¹

Photo Justin Kauffman, Unsplash.com

29) International Energy Agency (IEA), *Tracking SDG7: The Energy Progress Report 2023*, 2023.

30) The Council for Inclusive Capitalism, *Just Transition Framework for Company Action*, 2023.

31) World Business Council for Sustainable Development (WBCSD), *Achieving a just transition in the energy system*, 2023.

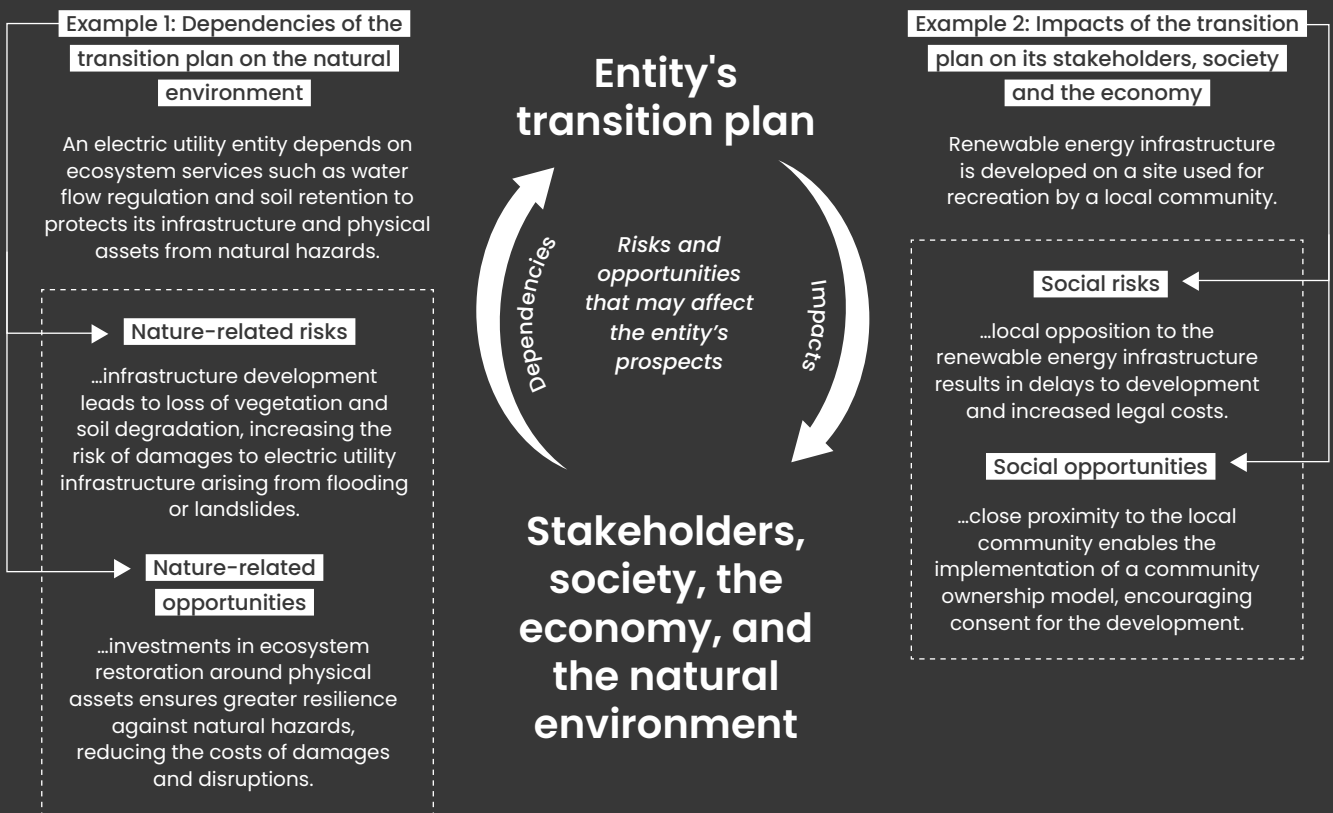


Figure 5: Illustrative example of impacts and dependencies of an EUPG entity's transition plan on its stakeholders, society, the economy, and the natural environment, that may give rise to sustainability-related risks and opportunities.

2. INTERPRETING THE TPT FRAMEWORK FOR ELECTRIC UTILITIES & POWER GENERATORS

Preparers should first read the Disclosure Framework which provides Disclosure Recommendations for each Sub-Element.

The Electric Utilities & Power Generators Guidance uses the ISSB’s definition of a climate-related transition plan and applies the same approach to materiality and the wider set of concepts, definitions, and corporate reporting norms that are set out in the ISSB’s General Requirements standard (IFRS S1).³²

Sector-specific guidance is not provided for all Sub-Elements of the Disclosure Framework. Where additional sector-specific guidance is not provided, the following statement is included **“No additional sector-specific guidance is provided for this Sub-Element”**.

For Sub-Elements for which additional sector-specific guidance is provided, additional guidance may only be provided for some of the Sub-Element’s Disclosure Recommendations. Cross-references to Disclosure Recommendations included in the Disclosure Framework are provided in the format **“(see DF 1.1.a)”**.

The additional sector-specific guidance is not intended to be comprehensive. An entity should disclose other information and consider other resources where deemed appropriate.

1. Foundations

Sub-Element

1.1 Strategic Ambition

An entity shall disclose the **Strategic Ambition** of its transition plan. This shall comprise the entity’s objectives and priorities for responding and contributing to the transition towards a low-GHG emissions, climate-resilient economy, and set out whether and how the entity is pursuing these objectives and priorities in a manner that captures opportunities, avoids adverse impacts for stakeholders and society, and safeguards the natural environment.

When interpreting the Disclosure Framework for the EUPG sector, an entity should consider disclosing:

- its objectives and priorities in relation to each of the following business activities, where applicable **(see DF 1.1.a)**:
 - o electricity generation;
 - o transmission and distribution of electricity; and
 - o electricity retail operations;
- its objectives and priorities for reducing its Scopes 1, 2 and 3 GHG emissions in either its operations or value chain, disaggregated by country **(see DF 1.1.a.i)**;
- its objectives and priorities for enhancing its resilience to the changing climate and responding to the physical climate-related risks and opportunities in the electricity system **(see DF 1.1.a.ii)**.

³² International Financial Reporting Standards (IFRS), **IFRS S1 General Requirements for Disclosure of Sustainability-related Financial Information**, 2023.

When disclosing, an entity may additionally consider:

When defining its objectives and priorities, an entity may consider the compatibility of its objectives and priorities with the role that the EUPG sector will play in decarbonising the countries in which it operates, noting that electricity generation is projected to decarbonise at different rates in different countries.³³

When defining its objectives and priorities for using the levers and capabilities it has available to embed and accelerate a transition to a low-GHG emissions climate-resilient economy, an entity may consider both its role in increasing its own zero-carbon generation capacity and its role in enabling the low-carbon electrification of other sectors.

When disclosing the extent to which it has taken into account and aligned with any external requirements, commitments, science-based targets, transition pathways, roadmaps, or scenarios, an entity may consider:

- Nationally Determined Contributions – for example, the UK’s commitment to reduce economy-wide GHG emissions by at least 68% by 2030, compared to 1990 levels;³⁴
- national policy targets and commitments – for example, the UK’s legal commitment to reduce GHG emissions by at least 100% of 1990 levels by 2050;³⁵
- implementation measures/commitments – for example, interim targets defined in the UK’s *Sixth Carbon Budget*;³⁶
- decarbonisation pathways – for example, the IEA’s Net Zero Emissions Scenario (in which emissions from electricity generation reach net zero by 2035 in advanced economies and net zero by 2040 globally)³⁷ and the TPI’s *Sectoral Decarbonisation Pathway* for the electric utilities sector;³⁸
- national adaptation strategies – for example, in the UK EUPG entities are requested to report on their preparedness for climate change risk under the Adaptation Reporting Power;³⁹ and
- science-based targets – for example, the Science Based Targets initiative’s *Setting 1.5°C-aligned Science-based Targets: Quick Start Guide for Electric Utilities*.⁴⁰
- When disclosing whether and how it has identified, assessed and taken into account the impacts and dependencies of the transition plan on its stakeholders (e.g. its workforce, value chain counterparts, customers), society (e.g. local communities), the economy, and the natural environment, throughout its value chain, that may give rise to sustainability-related risks and opportunities, an entity may find it helpful to refer to the *Impacts and dependencies of the transition plan on stakeholders, society, the economy and the natural environment* section within this guidance (see page 15).

Sub-Element

1.2 Business model and value chain

An entity shall disclose a description of the current and anticipated implications of the entity’s **Strategic Ambition** on its business model and value chain.

No additional sector-specific guidance is provided for this Sub-Element.

33) International Energy Agency (IEA), *World Energy Outlook 2023*, 2023.

34) UK Government, *United Kingdom of Great Britain and Northern Ireland’s Nationally Determined Contribution*, updated September 2022.

35) UK Government, *Climate Change Act*, 2008.

36) Climate Change Committee (CCC), *Sixth Carbon Budget*, 2020.

37) International Energy Agency (IEA), *Net Zero by 2050: A Roadmap for the Global Energy Sector*, 2021.

38) Transition Pathway Initiative (TPI), *Sectoral Decarbonisation Pathways*, 2022.

39) UK Government, *Adaptation Reporting Power*, 2023.

40) Science Based Targets Initiative (SBTi), *Setting 1.5°C-aligned Science-based Targets: Quick Start Guide for Electric Utilities*, 2020.

1.3 Key assumptions and external factors

An entity shall disclose key assumptions that it has made and external factors on which it depends in order to achieve the **Strategic Ambition** of its transition plan.

When interpreting the Disclosure Framework for the EUPG sector, an entity should consider disclosing:

- the nature of the key assumptions that it uses and external factors on which it depends, and their implication for the achievement of the **Strategic Ambition**, at a regional or global level, which may include **(see DF 1.3.a)**:
 - o the availability of equipment and materials;
 - o permitting and grid access;
 - o GHG emissions pricing;
 - o electricity demand and pricing;
 - o taxes (including carbon border taxes), allowances and reliefs; and
 - o its reliance on mature and less mature technologies (and associated technological developments) and related infrastructure readiness, specifically considering the role of carbon capture, utilisation and storage, as well as hydrogen and its derivatives (e.g. ammonia).

When disclosing, an entity may additionally consider:

When disclosing information about any forward-looking assumptions, an entity may consider referring to internationally recognised scenarios. For example, the IEA publishes data annually on several scenarios in the *World Energy Outlook*, which provides comprehensive projections of relevant information (e.g. materials demand, technology cost, energy production and consumption, energy prices, energy mix or CO₂ prices).⁴¹

When disclosing the timeframes over which any key assumptions and external factors are expected to occur, an entity may consider describing whether its decarbonisation trajectory may be non-linear. For example, an entity's decarbonisation trajectory may be impacted if it were to bring new operations online, or responsibly close an operation.

When disclosing the nature of any key assumptions it uses or external factors on which it depends related to its reliance on mature and less mature technologies, an entity may consider the technology readiness levels (TRL) provided by the IEA, including delineating between its use of Prototype (TRL 4-6), Demonstration (TRL 7-8), Early Adoption (TRL 9-10), and Mature (TRL 11) technologies.⁴² Broadly, mature technologies are those that are available and economically viable today, while less mature technologies are those which may not be available and/or are economically unviable.

41) International Energy Agency (IEA), **World Energy Outlook 2023**, 2023.

42) International Energy Agency (IEA), **ETP Clean Energy Technology Guide**, website as of 2024.

2 Implementation Strategy

Sub-Element

2.1 Business operations

An entity shall disclose information about the short-, medium-, and long-term actions it is taking or plans to take in its business operations in order to achieve the **Strategic Ambition** of its transition plan.

When interpreting the Disclosure Framework for the EUPG sector, an entity should consider disclosing:

- information about any short-, medium-, and long-term actions it is taking or plans to take in its business operations to **transition away from unabated fossil fuel generation**, which may include (see DF 2.1.a.i, 2.1.b):
 - for each generation type, its role in its future generation mix;
 - which parts of the entity's electricity generation portfolio are subject to mandatory phaseout;
 - planned actions in relation to unabated natural gas generation, including any actions that will enable it to reduce, and exit, from this activity;
 - planned actions to phaseout unabated coal, including to what extent these have been influenced by national or sub-national policy or targets; and
 - planned actions to install carbon capture, utilisation and storage (CCUS) to abate fossil fuel generation capacity;
- information about any short-, medium-, and long-term actions it is taking or plans to take in its business operations to **increase low- and zero-carbon generation capacity**, which may include (see DF 2.1.a.i):
 - transitioning its electricity portfolio from high carbon emitting electricity generation towards low and zero carbon generation; and
 - using power purchase agreements (PPAs) from low carbon, zero carbon or renewable electricity producers;
- information about any short-, medium-, and long-term actions it is taking or plans to take in its business operations to **develop transmission and distribution infrastructure**, which may include (see DF 2.1.a.i):
 - enabling low and zero carbon generation connection;
 - enabling interconnection; and
 - developing micro- or mini- grids;
- information about any short-, medium-, and long-term actions it is taking or plans to take in its business operations to **improve network efficiencies and flexibility**, which may include (see DF 2.1.a.i):
 - minimising electricity network losses;
 - reducing sulphur hexafluoride (SF₆) emissions from grid equipment;
 - introducing, or scaling up digital technologies and 'smart grid' technologies to enable demand response, increase grid resilience and reliability, and extend the lifetime of grid assets;
 - contributing to network flexibility, including investment in energy storage technologies; and
 - enabling energy prosumers (e.g. enabling individuals or communities to generate renewable energy or provide energy storage);
- information about any short-, medium-, and long-term **workforce adjustments** that it is taking or plans to take in its business operations, including the protection, training, relocation, and/or reassignment of workers whose skills are not aligned to its future business operations (see DF 2.1.a.ii);
- information about any short-, medium-, and long-term actions it is taking or plans to take in its business operations to **climate-proof new generation, transmission and distribution activities**, to increase resilience to the changing climate (see DF 2.1.b).

When disclosing, an entity may additionally consider:

When defining any actions to transition away from unabated fossil fuel generation, an entity may consider describing how its actions align to regional phaseout dates for unabated coal power generation. For example, in the IEA's Net Zero by 2050 scenario, unabated coal power is phased out by 2030 in advanced economies and by 2040 globally.⁴³

When defining any actions to climate-proof new generation, transmission, and distribution activities to increase resilience to the changing climate, an entity may consider:

- the IEA's *Power Systems in Transition: Challenges and opportunities ahead for electricity security*, for an overview of the main potential impacts on the electricity system due to long-term climate trends and extreme weather events;⁴⁴
- Energy UK's *Climate Change Risks and Adaptation Responses for UK Electricity Generation*, for a review of physical risks facing the EUPG sector in the UK and progress on implementation risk mitigation;⁴⁵ and
- Climate Bonds Initiative's *Electric Grids and Storage Criteria*, for guidance on how to evaluate the mitigation and resilience contribution of new transmission and distribution infrastructure.⁴⁶

Sub-Element**2.2 Products and services**

An entity shall disclose information about short-, medium-, and long-term actions it is taking or plans to take to change its portfolio of products and services in order to achieve the **Strategic Ambition** of its transition plan.

When interpreting the Disclosure Framework for the EUPG sector, an entity should consider disclosing:

- information about any current or anticipated actions, including timelines, to change its portfolio of products and services to contribute to widespread access to secure, affordable and low-carbon electricity supplies (**see DF 2.2.a**);
- information about any current or anticipated actions, including timelines, to change its portfolio of products and services (e.g. introduce new tariffs) to support electricity system flexibility and the electrification of end users (**see DF 2.2.a**).

When disclosing, an entity may additionally consider:

When defining any actions to change its portfolio of products and services, an entity may consider the Council for Inclusive Capitalism's *Just Transition Framework for Company Action*.⁴⁷ This framework identifies actions that can be taken to manage the transition to net-zero emissions energy in ways that are just, including guidance on products and services (e.g. off-grid solutions, mini-grids, energy efficiency services and flexible clean energy payment plans).

When describing how any changes to its portfolio of products and services contribute to widespread access to secure, affordable and low-carbon electricity supplies, an entity may consider the Environmental Change Institute's *Finding the fuel poor and framing better policy* on how the EUPG sector (in conjunction with government and the broader public sector) can improve identification of customers in fuel poverty and establish best support practices.⁴⁸

43) International Energy Agency (IEA), **Net Zero Roadmap: A Global Pathway to keep the 1.5°C Goal in Reach**, 2023.

44) International Energy Agency (IEA), **Power Systems in Transition: Challenges and opportunities ahead for electricity security**, 2020.

45) Energy UK, **Climate Change Risks and Adaptation Responses for UK Electricity Generation**, 2021.

46) Climate Bonds Initiative (CBI), **Electrical grids and storage criteria**, 2021.

47) The Council for Inclusive Capitalism, **Just Transition Framework for Company Action**, 2023.

48) Environmental Change Institute (ECI), **Finding the fuel poor and framing better policy**, 2023.

2.3 Policies and conditions

An entity shall disclose information about any policies and conditions that it uses or plans to use in order to achieve the **Strategic Ambition** of its transition plan.

When interpreting the Disclosure Framework for the EUPG sector, an entity should consider disclosing:

- information about any policies and conditions that it uses or plans to use in relation to the phaseout or abatement of GHG-intensive assets, with specific reference to coal, natural gas, oil, and diesel generation assets (**see DF 2.3.a.ii**);
- information about any policies and conditions that it uses or plans to use to address the potential adverse impacts of any infrastructure developments on the natural environment (**see DF 2.3.a.vii-ix**); and
- information related to any risk-sharing agreements with state authorities which are in place to ensure that the operation of GHG-intensive assets remains economic if assets must continue operating for security purposes (**see DF 2.3.a.vii-ix**).

When disclosing, an entity may additionally consider:

When defining any policies and conditions in relation to the phaseout or abatement of GHG-intensive assets, an entity may consider guidance including Climate Action 100+'s *Global Sector Strategy: Investor Interventions to Accelerate Net Zero Electric Utilities*⁴⁹ and the Powering Past Coal Alliance's *Declaration*.⁵⁰

When defining any policies and conditions to address the potential adverse impacts of any infrastructure developments on the natural environment, an entity may consider the Science Based Targets Network's (SBTN) *mitigation hierarchy*,⁵¹ and additional guidance on how to avoid, or minimise, negative impacts and restore and regenerate the natural environment:

- the Renewable Grid Initiative's *Essential Environmental Concepts for the Offshore Wind Energy Sector in Europe*, which outlines how to interpret the mitigation hierarchy in the context of nature, no net loss and net gain for the Offshore Wind sector;⁵² and
- SSE Renewables' *Biodiversity Net Gain Toolkits* and associated *User Guide*, which outline how to assess the biodiversity impacts of development schemes and the biodiversity benefits of corresponding landscaping or offsetting schemes.⁵³

49) Climate Action 100+ (CA100+), **Global Sector Strategies: Investor Interventions to Accelerate Net Zero Electric Utilities**, 2021.

50) Powering Past Coal Alliance (PPCA), **PPCA Declaration**, 2023.

51) Science Based Targets Network (SBTN), **Step 4: Act**, website as of 2024.

52) Renewables Grid Initiative, **Essential Environmental Concepts for the Offshore Wind Energy Sector in Europe**, 2022.

53) SSE Renewables, **Biodiversity Net Gain**, website as of 2024.

2.4 Financial planning

An entity shall, to the extent the financial effects of its transition plan are separately identifiable, disclose information about the effects of its transition plan⁵⁴ on its financial position, financial performance and cash flows⁵⁵ over the short-, medium-, and long-term, including information about how it is resourcing or plans to resource its activities in order to achieve the **Strategic Ambition** of its transition plan.⁵⁶

When interpreting the Disclosure Framework for the EUPG sector, an entity should consider disclosing:

- its current and committed investment plans required to achieve its **Strategic Ambition**, including in relation to **(see DF 2.4.a)**:
 - o low and zero carbon energy generation and storage assets;
 - o transmission and distribution grid infrastructure (including network upgrades and expanding grid access);
 - o other relevant technologies (e.g. digitalisation or electric vehicle charging infrastructure); and
 - o unabated fossil fuel generation;
- information about how the entity is resourcing, or plans to resource, any support provided to employees whose current skillsets, responsibilities and projects are not aligned with its **Strategic Ambition**, (e.g. investment for any necessary employee retraining, relocation and reassignment) **(see DF 2.4.a)**.

54) Please note that **2.4.c** is not intended to cover information about the financial effects of wider climate-related risks and opportunities. Instead the focus lies on the direct and indirect effects from implementing the transition plan itself.

55) For entities in the financial sector, this should cover the financial performance of the entity itself and not its investment or lending portfolio.

56) This Sub-Element should be regarded as distinct from the Disclosure Recommendations under Sub-Element **4.2 Financial metrics and targets**. Under **2.4 Financial planning**, the focus should lie on demonstrating that the entity has integrated the transition plan into its financial planning and disclosing expected financial effects. Under Sub-Element **4.2 Financial metrics and targets**, on the other hand, the entity should disclose the financial metrics and targets that it is using to assess progress and delivery of the plan over time.

3 Engagement Strategy

Sub-Element

3.1 Engagement with value chain

An entity shall disclose information about any engagement activities with other entities in its value chain that it is undertaking or plans to undertake in order to achieve the **Strategic Ambition** of its transition plan.

When interpreting the Disclosure Framework for the EUPG sector, an entity should consider disclosing:

- information about current and planned engagement activities that it is undertaking, or plans to undertake, in relation to **(see DF 3.1.b)**:
 - demand management and response;
 - network efficiency and flexibility;
 - electrification of heating, ventilation, and cooling (HVAC) infrastructure; and
 - ensuring a sustainable supply of materials and equipment needed for transmission and distribution infrastructure, and low and zero carbon electricity generation.

When disclosing, an entity may additionally consider:

When describing its current and planned engagement activities related to demand management and response, an entity may consider describing how its activities are informed by the IEA's *Tracking Clean Energy Progress*, which identifies deployment milestones under different scenarios for enabling technologies (e.g. commercial and residential energy storage systems, smart thermostats and residential electric vehicle smart chargers).⁵⁷

When describing any current and planned engagement with supply chain partners, entities may consider encouraging their suppliers to report GHG intensity metrics on key materials, such as supplied steel, aluminium concrete and copper.

In describing its current and planned engagement activities related to ensuring a sustainable supply of materials and equipment, an entity may consider the following guidance on creating secure and resilient supply chains in the electricity sector:

- the IEA's *Energy Technology Perspective*⁵⁸ and *Material and Resource Requirements for the Energy Transition*,⁵⁹ and
- the Energy Transitions Commission's *Better, Faster, Cleaner: Securing clean energy technology supply chains*.⁶⁰

57) International Energy Agency (IEA), **Tracking demand response**, website as of 2024.

58) International Energy Agency (IEA), **Technology Perspectives 2020: Special report on Clean Energy Innovation**, 2020.

59) Energy Transitions Commission (ETC), **Material and Resource Requirements for the Energy Transition**, 2023.

60) Energy Transitions Commission (ETC), **Better, Faster, Cleaner: Securing clean energy technology supply chains**, 2023.

3.2 Engagement with industry

An entity shall disclose information about any engagement and collaborative activities with industry counterparts (and other relevant initiatives or entities) that it is undertaking or plans to undertake in order to achieve the **Strategic Ambition** of its transition plan.

When interpreting the Disclosure Framework for the EUPG sector, an entity should consider disclosing:

- information about engagement and collaborative activities with industry counterparts (and other relevant initiatives or entities) to support electrification and build systemic resilience to the impacts of climate change, particularly in hard-to-decarbonise sectors including (**see DF 3.2.c**):
 - o industrials (e.g. cement, glass, steel);
 - o transport (e.g. road, rail, shipping, aviation); and
 - o buildings (e.g. industrial, commercial, residential).

When disclosing, an entity may additionally consider:

When disclosing information about any engagement and collaborative activities with its industry counterparts, an entity may consider CA100+'s *Global Sector Strategies: Investor Interventions to Accelerate Net Zero Electric Utilities*, which recommends industry-wide actions including:

- identifying barriers to decarbonisation in hard-to-decarbonise sectors;
- funding joint research and development projects to accelerate the removal of technological barriers to net zero (e.g. for carbon capture, utilisation and storage or bioenergy carbon capture and storage); and
- developing improved appliance efficiency standards.⁶¹

When disclosing information about any engagement activities to support the electrification of the industrials, transport and buildings sectors, an entity may consider whether and how its activities are informed by the opportunities and milestones for electrification, including under the scenarios identified within the IEA's *Tracking Clean Energy Progress 2023* report.⁶²

61) Climate Action 100+ (CA100+), **Global Sector Strategies: Investor Interventions to Accelerate Net Zero Electric Utilities**, 2021.

62) International Energy Agency (IEA), **Tracking Clean Energy Progress 2023**, 2023.

3.3 Engagement with government, public sector and civil society

An entity shall disclose information about any direct and indirect engagement activities with the government, regulators, public sector organisations, communities, and civil society that it is undertaking or plans to undertake in order to achieve the **Strategic Ambition** of its transition plan.

When interpreting the Disclosure Framework for the EUPG sector, an entity should consider disclosing:

- information about any direct and indirect engagement activities with government, regulators, and public sector organisations that it is taking, or plans to undertake, which may include engagement activities in relation to **(see DF 3.3.b)**:
 - energy security;
 - grid and infrastructure resilience, flexibility, and access;
 - consumer protection and provision of affordable and equitable, low carbon energy to consumers; and
 - technology development to support decarbonisation of business operations (e.g. low and zero carbon generation capacity, network efficiencies and flexibility, and transmission and distribution grid infrastructure);
- information about any direct and indirect engagement activities with communities and civil society that it is taking, or plans to undertake, which may include engagement activities in relation to **(see DF 3.3.b)**:
 - the closure and/or repurpose of fossil fuel plant and legacy grid infrastructure;
 - new electricity generation, transmission, and distribution infrastructure;
 - partnerships between communities and local authorities, including community ownership stakes and collaboration in respect of local energy markets, demand management and energy efficiency; and
 - supporting communities, including vulnerable groups, to participate in electricity transition (e.g. onsite generation, storage and demand management).

When disclosing, an entity may additionally consider:

An entity may consider *The Global Standard on Responsible Climate Lobbying* which provides a framework to ensure companies' lobbying and political engagement activities are in line with the goal of restricting global temperature rise to 1.5°C above pre-industrial levels.⁶³

63) Climate Lobbying, **Responsible Climate Lobbying: The Global Standard**, 2022.

4 Metrics & Targets

Sub-Element

4.1 Governance, business and operational metrics and targets

An entity shall disclose information about the governance, engagement, business and operational metrics and targets that it uses in order to drive and monitor progress towards the **Strategic Ambition** of its transition plan, and report against these metrics and targets on at least an annual basis.

When interpreting the Disclosure Framework for the EUPG sector, an entity should consider disclosing:

- information about any business and operational metrics and targets that it uses in order to drive and monitor progress towards the **Strategic Ambition** of its transition plan, which may include (**see DF 4.1.b**):
 - o current and targeted zero carbon electricity capacity (GW) and generation (MWh), disaggregated by generation type;
 - o generated electricity (MWh) by each generation type within the entity's own generation mix and within Power Purchase Agreements, disaggregated by abated and unabated fossil fuel generation;
 - o information about any metrics and targets it uses related to carbon capture, utilisation and storage, including the percentage of power plants using the technology, and the capture rate of GHG emissions;
 - o the percentage of electric load (by MWh) served by smart grid technology;
 - o the performance of reliability of generation, transmission, distribution and supply, in relation to climate resilience; and
 - o customer electricity savings (MWh) from energy efficiency, flexibility and storage measures.

When disclosing, an entity may additionally consider:

Entities may disclose operational and business metrics and targets related to impacts and dependencies of the transition plan on the natural environment. An entity may consider UNEP's *Prioritising nature-related Disclosures: Considerations for high-risk sectors* which identifies the highest direct impacts of the sector as changes to land use (e.g. water treatment services can significantly change freshwater ecosystems), the use of water (e.g. for water services) and the emission of greenhouse gasses (e.g. methane leaks from pipelines). In addition, it identifies that the sector is highly dependent on water and water flow maintenance.⁶⁴

When defining any governance, engagement, business and operational metrics and targets in relation to safeguarding the natural environment, an entity may consider the following resources:

- for cross-cutting guidance, the TNFD *Recommendations on the Taskforce on Nature-related Financial Disclosures*⁶⁵ and *Draft sector guidance – Electric utilities and power generators*;⁶⁶
- for entities with thermal, hydrogen-based, hydropower or nuclear power production (for which water will be particularly relevant), the ISSB's *Industry-based Guidance on implementing Climate-Related Disclosures*,⁶⁷ and CDP's *Water Security 2023 Reporting Guidance*;⁶⁸

64) United Nations Environment Programme (UNEP), **Prioritising Nature-related Disclosures: Considerations for high-risk sectors**, 2022.

65) Taskforce on Nature-related Financial Disclosures (TNFD), **Recommendations of the Taskforce on Nature-related Financial Disclosures**, 2023.

66) Taskforce on Nature-related Financial Disclosures (TNFD), **Discussion paper on proposed sector disclosure metrics**, 2023.

67) International Financial Reporting Standards (IFRS), **IFRS S2 Climate-related Disclosures**, 2023.

68) CDP, **Water Security 2023 Reporting Guidance**, 2023.

- for entities which consume biomass derived from timber products or palm oil, CDP's *Forests 2023 Reporting Guidance*,⁶⁹ and
- for entities developing new zero carbon generation and transmission and distribution infrastructure, SSE Renewables' *Biodiversity Net Gain toolkits* and associated *User Guide* to assess the biodiversity impacts of development schemes the biodiversity benefits of corresponding landscaping or offsetting schemes.⁷⁰

Sub-Element

4.2 Financial metrics and targets

An entity shall disclose information about the financial metrics and targets that it uses in order to drive and monitor progress towards the **Strategic Ambition** of its transition plan, and report against these metrics and targets on at least an annual basis.

When interpreting the Disclosure Framework for the EUPG sector, an entity should consider disclosing:

- information about any current and projected capital expenditure metrics and targets it uses in relation to (**see DF 4.2.a, 4.2.c**):
 - low and zero carbon energy generation and storage assets;
 - transmission and distribution grid infrastructure, including grid access;
 - other technologies (e.g. digitalisation or electric vehicle chargers);
 - unabated gas generation capacity;
 - unabated coal generation capacity; and
 - unabated oil or diesel generation capacity.

When disclosing, an entity may additionally consider:

When disclosing current and projected capital expenditure targets, an entity may consider supplementing these with additional financial metrics (e.g. revenue, and earnings before interest, taxes, depreciation and amortisation), disaggregated by generation type and/or business segment.

When disclosing any underlying taxonomy, tools, methodologies, or definitions on which its metrics and targets rely, an entity may consider disclosing its use of any:

- legislative taxonomies (e.g. the EU Taxonomy);
- market-based taxonomies (e.g. the Climate Bonds Initiative *Sector Criteria*);⁷¹ and
- proprietary classifications or taxonomies, with details provided of underlying methodologies.

69) CDP, **Forests 2023 Reporting Guidance**, 2023.

70) SSE Renewables, **Biodiversity Net Gain**, website as of 2023.

71) Climate Bonds Initiative (CBI), **Sector Criteria**, website as of 2024.

4.3 GHG metrics and targets

An entity shall disclose information about the GHG emissions and removals metrics and targets that it uses in order to drive and monitor progress towards the **Strategic Ambition** of its transition plan, and report against these metrics and targets on at least an annual basis.

When interpreting the Disclosure Framework for the EUPG sector, an entity should consider disclosing:

- information about any metrics and targets it uses for reducing absolute gross GHG emissions for Scopes 1 and 2 (**see DF 4.3.a**) or any gross GHG emissions intensity targets for Scopes 1 and 2 (per tCO₂e/MWh) (**see DF 4.3.e**) that it has set, including any disaggregation at country level;
- for entities with generation activities:
 - information about any metrics and targets it uses for reducing absolute gross GHG emissions for Scopes 1, 2, and 3, disaggregated by generation type (**see DF 4.3.a**);
 - information about any metrics and targets it uses related to carbon capture, utilisation and storage, including the percentage of power plants using the technology, and the capture rate of GHG emissions (**see DF 4.3.m**);
- for entities with transmission and distribution activities:
 - information about any metrics and targets it uses for reducing the GHG emissions intensity of power purchase agreements for transmission and distribution activities (tCO₂e/MWh) (**see DF 4.3.e, 4.3.f**); and
 - information about any metrics and targets it uses for reducing SF₆ leakage (**see DF 4.3.c**);
- information about any metrics and targets it uses for increasing GHG removals via bio-energy and carbon capture and storage, including the percentage of any advanced biofuels used (**see DF 4.3.g, 4.3.m**).

When disclosing, an entity may additionally consider:

When disclosing information about any metrics and targets, an entity may disaggregate between self-generated electricity, and for electricity which is purchased from third parties (including under PPAs) and resold to customers.

When defining any GHG emissions metrics and targets, including any disaggregation at country level, an entity may consider the IEA's Net Zero Emissions Scenario, under which electricity generation reaches net zero by 2035 in advanced economies and by 2040 in countries with less developed economies.⁷² In addition, an entity may consider the TPI's regional benchmarks which include emissions intensity pathways for: North America, European Union and UK, other OECD, and non-OECD countries.⁷³

Entities that do not generate electricity (i.e. transmission and distribution entities) may consider the SBTi's sector-neutral guidance.⁷⁴

When defining any GHG emissions metrics and targets, entities that generate electricity may consider the SBTi's *Setting 1.5°C-Aligned Science-Based Targets: Quick Start Guide for Electric Utilities*,⁷⁵ which recommends that targets should cover electricity generation related emissions from within the organisational boundary (Scope 1) and from purchased and sold electricity (Scope 3, Category 3: Fuel- and Energy-Related Activities not included in Scope 1 or Scope 2).

⁷² International Energy Agency (IEA), **Net Zero by 2050: A Roadmap for the Global Energy Sector**, 2021.

⁷³ Transition Pathway Initiative (TPI), **Carbon performance assessment of electricity utilities: note on methodology**, 2021.

⁷⁴ Science Based Targets Initiative (SBTi), **SBTi Corporate Net-zero Standard: Version 1.2**, 2024

⁷⁵ Science Based Targets Initiative (SBTi), **Setting 1.5°C-Aligned Science-Based Targets: Quick Start Guide for Electric Utilities**, 2020.

When defining any GHG emissions metrics and targets in relation to electricity lost during transmission and distribution, an entity may consider guidance from the Greenhouse Gas Protocol which recommends that:

- where an entity purchases its electricity and transports it through a transmission and distribution system, transmission and distribution losses should be included in Scope 2 emissions (as the losses are a portion of direct emissions from the “use” (loss) of purchased electricity);
- where an entity owns the transmission and distribution system and produces the electricity that runs through it, transmission and distribution losses should be included in Scope 1 emissions (as the emissions are a direct emission resulting from the production of a good).⁷⁶

When defining any GHG removals metrics and targets, an entity may consider the Greenhouse Gas Protocol’s *Land Sector and Removals Guidance*.⁷⁷

An entity may consider disclosing metrics and targets related to upstream emissions and non-combustion emissions from low or zero carbon electricity generation where relevant. For example, hydropower may result in non-combustion emissions from microbial process in reservoirs, and bio-energy may have upstream Scope 3 emissions from feedstock harvesting, processing, transporting and land use change. An entity may consider the Climate Bonds Initiative’s *Electrical Utilities Background Paper* for an overview of these sources.⁷⁸

Sub-Element

4.4 Carbon credits

An entity shall disclose information about how it uses or plans to use carbon credits to achieve the **Strategic Ambition** of its transition plan, and report on the use of carbon credits on at least an annual basis.

When interpreting the Disclosure Framework for the EUPG sector, an entity should consider disclosing:

- information about its use of Renewable Energy Certificates (RECs) in the sale of green electricity, including the composition of sold renewable energy (self-generated electricity versus grid electricity backed by purchased renewable energy credits), and how additionality is ensured (**see 4.1.a**).

When disclosing, an entity may additionally consider:

When defining its use of carbon credits, an entity may consider the Committee on Climate Change’s *Briefing document: Corporate Procurement of Renewable Energy: Implications and Considerations*, which suggests that some Renewable Energy Guarantees of Origin (REGOs) used in the sale of green electricity (e.g. unbundled REGOS) may have a limited effect in driving additional decarbonisation in the grid. The report recommends that entities should select a procurement model that maximises corporate and systematic benefits for the decarbonisation of the grid.⁷⁹

76) Greenhouse Gas Protocol (GHG Protocol), **A Corporate Accounting and Reporting Standard**, 2004.

77) Greenhouse Gas Protocol (GHG Protocol), **Land Sector and Removals Guidance (Draft)**, 2023.

78) Climate Bonds Initiative (CBI), **Electrical Utilities Background Paper**, 2024.

79) Climate Change Committee (CCC), **Briefing document: Corporate Procurement of Renewable Energy: Implications and Considerations**, 2020.

5 Governance

Sub-Element

5.1 Board oversight and reporting

An entity shall disclose information about the governance body(s) (which can include a board, committee, or equivalent body charged with governance) or individual(s) responsible for oversight of the transition plan.

No additional sector-specific guidance is provided for this Sub-Element.

Sub-Element

5.2 Roles, responsibility and accountability

An entity shall disclose information about management's role in the governance processes, controls, and procedures used to monitor, manage, and oversee the transition plan, as well as how it is embedded within the entity's wider control, review, and accountability mechanisms.

No additional sector-specific guidance is provided for this Sub-Element.

Sub-Element

5.3 Culture

An entity shall disclose information about how it aligns or plans to align its culture with the **Strategic Ambition** of its transition plan.

No additional sector-specific guidance is provided for this Sub-Element.

Sub-Element

5.4 Incentives and remuneration

An entity shall disclose information about how it aligns or plans to align its incentive and remuneration structures with the **Strategic Ambition** of its transition plan.

No additional sector-specific guidance is provided for this Sub-Element.

Sub-Element

5.5 Skills, competencies and training

An entity shall disclose information about actions it is taking or plans to take to assess, maintain, and build the appropriate skills, competencies, and knowledge across the organisation in order to achieve the **Strategic Ambition** of its transition plan.

No additional sector-specific guidance is provided for this Sub-Element.

Glossary

Term	Definition
advanced biofuels	Advanced biofuels, including second-, third-, and fourth-generation biofuels do not compete with food production and offer significant life cycle emissions reductions relative to fossil-based fuel. Examples include biofuels created from domestic industrial waste, and agricultural and forest residues. ⁸⁰
carbon capture, utilisation and storage (CCUS)	Involves the capture of CO ₂ , generally from large point sources such as power generation or industrial facilities that use either fossil fuels or biomass as fuel. If not being used on-site, the captured CO ₂ is compressed and transported by pipeline, ship, rail or truck to be used in a range of applications, or injected into deep geological formations such as depleted oil and gas reservoirs or saline aquifers. ⁸¹
climate resilience	<p>At the entity-level: the capacity of an entity to adjust to climate-related changes, developments, or uncertainties. Climate resilience involves the capacity to manage climate-related risks and benefit from climate-related opportunities, including the ability to respond and adapt to climate-related transition risks and climate-related physical risks. An entity's climate resilience includes both its strategic resilience and its operational resilience to climate-related changes, developments, and uncertainties.⁸²</p> <p>At the systems-level: the capacity of interconnected social, economic, and ecological systems to cope with a hazardous event, trend, or disturbance, responding or reorganising in ways that maintain their essential function, identity, and structure. Resilience is a positive attribute when it maintains capacity for adaptation, learning, and/or transformation.⁸³</p>
demand response	Refers to balancing the demand on power grids by encouraging customers to shift electricity demand to times when electricity is more plentiful or other demand is lower, typically through prices or monetary incentives. ⁸⁴
entity	An organisation that voluntarily chooses, or is required by law, to prepare a general purpose financial report.
electricity retail	A business activity where electricity is sold to end-users.

80) CDP, **CDP Technical Note: Biofuels**, 2023.

81) International Energy Agency (IEA), **Carbon Capture, Utilisation and Storage**, 2023.

82) International Financial Reporting Standards (IFRS), **IFRS S2 Climate-related Disclosures**, 2023.

83) Intergovernmental Panel on Climate Change (IPCC), **Sixth Assessment Report, Impacts, Adaptation Vulnerability**, 2022.

84) International Energy Agency (IEA), **Tracking demand response**, website as of 2024.

general purpose financial reports	<p>Reports that provide financial information about a reporting entity that is useful to primary users in making decisions relating to providing resources to the entity. Those decisions involve decisions about:</p> <p>(a) buying, selling, or holding equity and debt instruments;</p> <p>(b) providing or selling loans and other forms of credit; or</p> <p>(c) exercising rights to vote on, or otherwise influence, the entity's management's actions that affect the use of the entity's economic resources. General purpose financial reports include—but are not restricted to—an entity's general purpose financial statements and sustainability-related financial disclosures.⁸⁵</p>
generation	<p>Electricity generated from other sources, commonly including coal, natural gas, nuclear energy, hydropower, solar, wind, and other renewable and fossil fuel energy sources.⁸⁶</p>
greenhouse gases (GHG)	<p>The six gases listed in the Kyoto Protocol: carbon dioxide (CO₂); methane (CH₄); nitrous oxide (N₂O); hydrofluorocarbons (HFCs); perfluorocarbons (PFCs); and sulphur hexafluoride (SF₆).⁸⁷</p>
high carbon emitting electricity generation	<p>Electricity generated from high carbon emitting fuels (e.g. oil, coal, and natural gas).</p>
hydrogen	<p>A versatile energy carrier and today is mainly used in the refining and chemical sectors. It is largely produced using fossil fuels and is responsible for significant GHG emissions. If decarbonised, hydrogen and hydrogen-based derivatives can play a role in the decarbonisation of sectors where emissions are hard to abate and alternative solutions are not yet available or difficult to implement, for example, heavy industry or shipping. The EUPG sector may be involved in the supply of low or zero-GHG emissions hydrogen and hydrogen-based fuels (e.g. in developing renewables for hydrogen electrolysis) as well as the demand for hydrogen and hydrogen-based fuels.</p>
just transition	<p>The just transition involves anticipating, assessing, and addressing the social risks and opportunities of the transition to a low-GHG emissions and climate-resilient development, as well as ensuring meaningful dialogue and participation for impacted groups (including workers, communities, supply chains, and consumers) in transition planning.</p>
less mature technologies	<p>Technologies that may not be available and/or are economically unviable. In this guidance, it is suggested that an entity considers the IEA's technology readiness levels (TRL) to define the maturity of technologies.⁸⁸</p>

85) International Financial Reporting Standards (IFRS), **IFRS S1 General Requirements for Disclosure of Sustainability-related Financial Information**, 2023.

86) International Financial Reporting Standards (IFRS), **IFRS S2 Climate-related Disclosures**, 2023.

87) Greenhouse Gas Protocol (GHG Protocol), **A Corporate Accounting and Reporting Standard**, 2004.

88) International Energy Agency (IEA), **ETP Clean Energy Technology Guide**, 2023.

low carbon electricity generation	Electricity generated from low emissions fuels, these can be grouped into gaseous fuels (biogases, hydrogen and synthetic methane) and liquid fuels (liquid biofuels, ammonia and synthetic liquid hydrocarbon fuels). They can be produced from plants, which absorb CO ₂ from the atmosphere as they grow, or through industrial processes powered by renewables or other low-emission energy sources. ⁸⁹
material information	In the context of sustainability-related financial disclosures, information is material if omitting, misstating, or obscuring that information could reasonably be expected to influence decisions that primary users of general purpose financial reports make on the basis of those reports, which include financial statements and sustainability-related financial disclosures and which provide information about a specific reporting entity. ⁹⁰
mature technologies	Technologies that are available and economically viable today. In this guidance, it is suggested that an entity considers the IEA's technology readiness levels (TRL) to define the maturity of technologies. ^{91, 92}
natural environment	(a) Plants, wild animals and other living organisms; (b) their habitats; and (c) land (except buildings or other structures), air, and water, and the natural systems, cycles, and processes through which they interact.
prosumers	Citizens or communities that produce electricity, (e.g. by installing solar photovoltaic panels on their roofs or using their electric vehicle batteries as energy storage). Prosumers capture the concept that these citizens are both producers and consumers. ⁹³
renewable electricity generation	Energy is derived from natural sources that are replenished at a higher rate than they consumed, allowing electricity generation to be almost completely decarbonised. Renewables can include solar, wind, hydropower, and others.
renewable energy certificates (RECs)	Renewable energy certificates track a defined amount of electricity generated from renewable sources. RECs can be bought, sold, and transferred and determine that the owner of the certificate owns the amount of clean energy determined by the certificate.
renewable energy guarantees of origin (REGO)	A scheme that provides transparency to consumers about the proportion of electricity that suppliers source from renewable electricity. The scheme provides certificates called REGOs which demonstrate electricity has been generated from renewable sources. ⁹⁴ REGO schemes operate in the UK and EU.
smart grids	Electricity networks that use digital technologies, sensors, and software to better match the supply and demand of electricity in real time while minimizing costs and maintaining the stability and reliability of the grid. ⁹⁵
transmission and distribution	The delivery of electrical energy from generation to consumers. Transmission generally involves the transportation of high-voltage electricity over long distances. Distribution delivers lower-voltage electricity to end-users.

89) International Energy Agency (IEA), **Low-Emission Fuels**, website as of 2023.

90) International Financial Reporting Standards (IFRS), **IFRS S1 General Requirements for Disclosure of Sustainability-related Financial Information**, Appendix A, 2023.

91) International Energy Agency (IEA), **ETP Clean Energy Technology Guide**, 2023.

92) International Energy Agency (IEA), **Energy Technology Perspectives 2020: Special report on Clean Energy Innovation**, 2020.

93) European Environment Agency (EEA), **Energy prosumers in Europe: Citizen participation in the energy transition**, 2022.

94) Office of Gas and Electricity Markets (Ofgem), **Renewable Energy Guarantees of Origin (REGO)**, website as of 2023.

95) International Energy Agency (IEA), **Smart Grids**, website as of 2024.

unabated coal power generation	Coal power generation that is not equipped with carbon capture, utilisation and storage technologies. ⁹⁶
value chain	<p>The full range of interactions, resources, and relationships related to a reporting entity's business model and the external environment in which it operates.</p> <p>A value chain encompasses the interactions, resources, and relationships an entity uses and depends on to create its products or services from conception to delivery, consumption, and end-of-life, including interactions, resources, and relationships in the entity's operations, such as human resources; those along its supply, marketing, and distribution channels, such as materials and service sourcing, and product and service sale and delivery; and the financing, geographical, geopolitical, and regulatory environments in which the entity operates.⁹⁷</p>
zero carbon electricity generation	Electricity generated from zero carbon emitting sources, these can include renewable energy sources such as wind and solar, and other sources such as nuclear.

96) International Financial Reporting Standards (IFRS), **IFRS S1 General Requirements for Disclosure of Sustainability-related Financial Information**, 2023.

97) International Financial Reporting Standards (IFRS), **IFRS S1 General Requirements for Disclosure of Sustainability-related Financial Information**, 2023.



CONTACT US

secretariat@transitiontaskforce.net

transitiontaskforce.net