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Climate Disclosure and Risk Management: Global Approaches

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Michael Hutchinson, Mark Uhrynuk, Tim Baines, Alexander Burdulia

Introduction

In April 2019, the Prudential Regulatory Authority (**PRA**) of the Bank of England issued an influential Supervisory Statement on the disclosure of climate-related risks by financial institutions. The statement asks firms to take a comprehensive and strategic approach to climate-related risks, encompassing governance, risk management and disclosure elements. According to the PRA, firms should not only adopt this approach in the UK but also **"recognise the increasing possibility that disclosure will be mandated in more jurisdictions, and prepare accordingly."** More recently, the UK has announced its intention to implement the recommendations of the Task Force on Climate-Related Disclosures (**TCFD**) across the economy by 2025, with a significant portion of mandatory climate-related disclosure requirements in place by 2023. In November 2020, the UK published a regulatory roadmap setting out an indicative pathway to achieving this ambition, followed by a comprehensive consultation on a broadly applicable climate disclosure regime in March 2021.

The Hong Kong Monetary Authority (**HKMA**) has also been making significant strides from an Asian perspective. In June 2020, the regulator issued its own preliminary approach to the supervision of climate-related risks, including risk management, integration and disclosure aspects. The HKMA asks regulated institutions to **"keep abreast of evolving disclosure requirements, both globally and locally, in light of increasing attention on climate-related issues."** Following the UK's announcement on implementing the TCFD Recommendations by 2025, the HKMA and a group of six other Hong Kong agencies also committed to implement mandatory TCFD-aligned climate-related disclosures by 2025.

In North America, the Biden administration and the Securities and Exchange Commission (**SEC**) are making climate change a signature priority for the US federal government. In February 2021, the SEC announced an enhanced focus on climate-related disclosures in public company filings, recognising that **"[n]ow more than ever, investors are considering climate-related issues when making their investment decisions."** In May 2021, President Biden issued a wide-ranging Executive Order requiring federal regulators to assess, among other things, "the necessity of any actions to enhance climate-related disclosures by regulated entities to mitigate climate-related financial risk to the financial system". At the state level, in October 2020, the New York State Department of Financial Services asked regulated institutions to **"start developing their approach to climate-related financial risk disclosure"** and **"engage with established initiatives when doing so"**.

These statements from regulators in each of the world's most important financial centres illustrate the pressing need for all businesses to consider their approach to climate-related disclosure and risk management in the near term. We have developed this guide to help businesses understand and respond to the approaches that regulators are taking as regimes continue to develop and evolve at a rapid pace. This guide will compare and contrast these sometimes divergent, but often similar, approaches to the growing threat of climate change across two main categories: "straightforward" climate-related "disclosure only" regimes and more "comprehensive" climate risk management regimes.

Disclosure Only

Relatively "straightforward" climate-related disclosure regimes have existed for some time. These regimes vary in scope and legally binding nature but share the following commonalities:

- At a minimum, large, listed companies are required to make climate-related disclosures focused on emissions metrics in their annual reports.
- Reporting entities are often suggested or required to refer to the GHG Protocol in determining Scope 1, Scope 2 and Scope 3 emissions.
- Audit requirements are less common, but regulators often encourage reporting entities to seek external audits.
- Standalone sanctions regimes are less common, but reporting entities may be sanctioned under more broadly applicable sanctions regimes (e.g., a stock exchange's listing rules).

In general, these regimes require gathering information about emissions and reporting on them, as well as setting targets for improvements, but do not go further than this. There are, however, some interesting divergences that indicate how difficult it is for market participants with international footprints to generate a consistent global approach. For example, the SGX Listing Rules in Singapore generally give issuers a degree of flexibility in determining which disclosures to make, while the UK's SECR includes more specific emissions disclosure requirements. For an international organisation comprising entities subject to both of these regimes, applying the same approach in each jurisdiction might be undesirable from a compliance perspective, on the one hand, and a cost perspective on the other.

In this section, we highlight a selection of existing and proposed "disclosure only" regimes in the United Kingdom, Singapore and Hong Kong, as well as the European Union, and outline key features of the GHG Protocol that underlies many of these regimes.

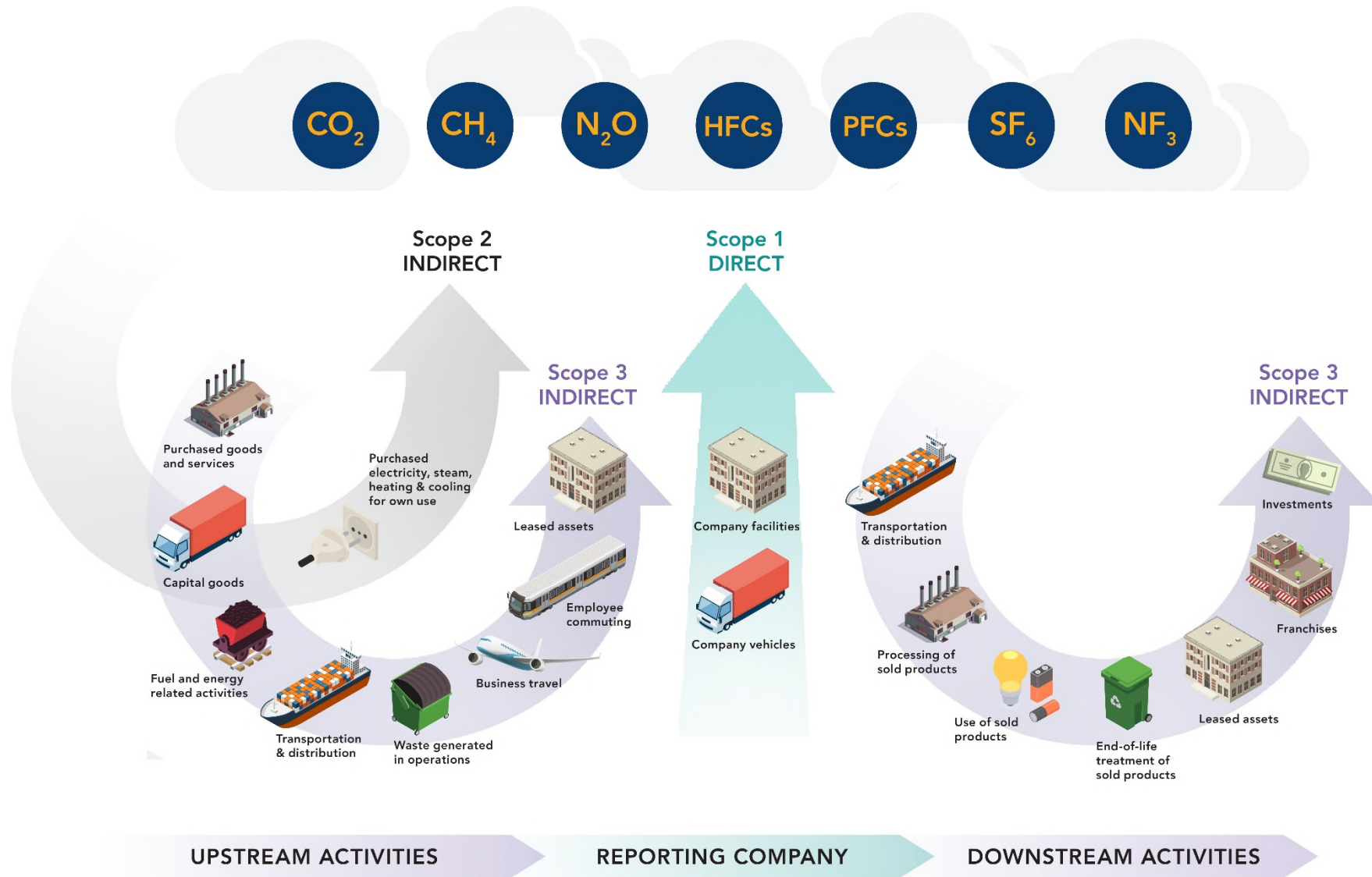
GHG Protocol overview

The [GHG Protocol Corporate and Accounting Reporting Standard](#) is a leading international methodology that provides standards and guidance for companies and other organisations preparing a corporate-level GHG emissions inventory. Indeed, many "disclosure only" regimes (e.g., the UK's SECR) specifically refer to the GHG Protocol for various purposes, including to define Scope 1, Scope 2 and Scope 3 GHG emissions. Please refer to the chart overleaf for more detail on Scope 1, Scope 2 and Scope 3 GHG emissions.

In practice, reporting entities might refer to the GHG Protocol's practical instructions to identify and calculate GHG emissions in determining the scope and quantum of their emissions. The reporting entity might then report such information pursuant to an applicable disclosure regime (whether or not the regime specifically refers to the GHG Protocol). The following table summarises key components of the GHG Protocol.

Covered Entities	Information Disclosed	Compliance Obligation	Audit Requirement	Sanctions
<ul style="list-style-type: none"> • Any entity (mainly corporates) seeking to: <ul style="list-style-type: none"> ○ Prepare a GHG inventory that represents a true and fair account of their emissions ○ Report publically ○ Simplify and reduce the costs of compiling a GHG inventory ○ Build an effective strategy to manage and reduce GHG emissions ○ Participate in voluntary and mandatory GHG programs ○ Account and report on GHG emissions consistently and transparently ○ Manage GHG risks and identify reduction opportunities ○ Participate in mandatory reporting programs ○ Participate in GHG markets ○ Gain recognition for early voluntary action • Can be used in conjunction with other mandatory or voluntary regimes 	<ul style="list-style-type: none"> • Sets out how to determine matters for reporting, such as: <ul style="list-style-type: none"> ○ How to determine an organisational boundary ○ Approaches to affiliates, JVs and partnerships ○ Approaches to franchises and leases ○ Distinguishing between Scope 1, Scope 2 and Scope 3 emissions ○ Determining operational boundaries ○ Avoiding double counting ○ Choosing base years ○ Reference years ○ Identifying emissions sources ○ Dealing with estimates and uncertainties ○ How to report 	<ul style="list-style-type: none"> • The Standard is a tool for meeting compliance obligations or for reporting on a voluntary basis, rather than setting out a compliance obligation 	<ul style="list-style-type: none"> • Verification is often undertaken by an independent, external third party • Many companies may subject their information to internal verification • Both internal and external verification should follow similar procedures and processes • For external stakeholders, external third party verification is likely to significantly increase the credibility of the GHG inventory • Independent internal verifications can also provide valuable assurance over the reliability of information 	<ul style="list-style-type: none"> • Not applicable, but note that regulation referring to the GHG Protocol may apply specific sanctions regimes

What are Scope 1, Scope 2 and Scope 3 GHG Emissions?



Overview of GHG Protocol scopes and emissions across the value chain. Source: Greenhouse Gas Protocol

Disclosure Only Regimes Around the World

United Kingdom – Streamlined Energy and Carbon Reporting (SECR): Since 2013, the Companies Act 2006 (Strategic Report and Directors' Report) Regulations 2013 has required quoted companies to report annual emissions and an intensity ratio in their Directors' Report. The Companies (Directors' Report) and Limited Liability Partnerships (Energy and Carbon Report) Regulations 2018, SECR, came into effect on 1 April 2019 and adds additional disclosure requirements for quoted companies, plus new disclosure requirements for large unquoted companies and LLPs. [Source: 1](#)

Reporting Frequency: Annually

Covered Entities	Information Disclosed	Compliance Obligation	Audit Requirement	Sanctions
<ul style="list-style-type: none"> • Quoted companies of any size that are required to prepare a Directors' Report under Part 15 of the Companies Act 2006 • Unquoted "large" companies which are required to prepare a Directors' Report under Part 15 of the Companies Act 2006 • "Large" LLPs • "Large" companies and LLPs are entities that meet at least two of the following three criteria in a reporting year: <ul style="list-style-type: none"> ○ 250 or more employees ○ £36 or more million turnover ○ £18m or more balance sheet total 	<ul style="list-style-type: none"> • Both quoted companies and unquoted companies: <ul style="list-style-type: none"> ○ Energy use and GHG emissions figures from the previous year ○ At least one emissions intensity metric ○ Description of measures taken to improve energy efficiency and the methodology used • Quoted companies: <ul style="list-style-type: none"> ○ Annual Global GHG Protocol Scope 1 and Scope 2 emissions from activities for which the company is responsible (including combustion of fuel and operation of any facility and annual emissions from the purchase of electricity, heat, steam or cooling by the company for its own use) ○ Underlying global energy use ○ Total energy consumption and emissions split by UK and offshore use 	<ul style="list-style-type: none"> • For companies, disclosures are included in Directors' Reports • For LLPs, disclosures are included in a standalone "Energy and Carbon Report" • Where energy usage and carbon emissions are of strategic importance to the company, disclosure of the relevant information may be included in the Strategic Report instead of the Directors' Report 	<ul style="list-style-type: none"> • There is no requirement in the legislation for emission and energy use data, or the narratives on energy efficiency, to be independently assured, but this is recommended in best practice • Generally, audit reports are required to state whether the information in the Directors' Report (e.g., SECR disclosures) is consistent with the financial statements, has been prepared in accordance with applicable law and contains any material misstatements 	<ul style="list-style-type: none"> • The Conduct Committee of the Financial Reporting Council is responsible for monitoring compliance of company reports and accounts with the relevant reporting requirements • The Conduct Committee has the power to enquire into cases where it appears that relevant disclosures have not been provided • The Committee also has the power to apply to the Court, under section 456 of the Companies Act 2006, for a declaration that the annual report or accounts of a company or LLP do not comply with the requirements and for an order requiring the directors to prepare a revised report and/or set of accounts

United Kingdom – Streamlined Energy and Carbon Reporting (SECR)/cont.				
Covered Entities	Information Disclosed	Compliance Obligation	Audit Requirement	Sanctions
	<ul style="list-style-type: none"> • Unquoted Companies: <ul style="list-style-type: none"> ○ UK energy use (at a minimum: purchased gas, electricity and transport) ○ Associated GHG emissions • "Low Energy Users" are exempt from the reporting requirements. "Low Energy Users" are: <ul style="list-style-type: none"> ○ Quoted companies that consumed 40MWh or less during the period of the relevant report ○ Unquoted companies or LLPs that consumed 40MWh or less in the UK, including offshore area, during the period of the relevant report 			<ul style="list-style-type: none"> • The Companies House may not accept any accounts that do not meet the requirements of the Companies Act 2006, and where acceptable accounts are delivered after the filing deadline, the company is liable to a civil penalty in accordance with section 453 of the Companies Act 2006. The civil penalty for the late filing of accounts is in addition to any action taken against directors (or members of an LLP), under section 451 of the Companies Act 2006

Hong Kong – HKEX Listing Rules on ESG Reporting: HKEX adopted amendments to its Listing Rules and an ESG Reporting Guide in its “Consultation Conclusions on Review of the Environmental, Social and Governance Reporting Guide and related Listing Rules” in December 2019 (the **2019 Amendments**). The 2019 Amendments took effect for issuers' financial years commencing on or after 1 July 2020. Sources: 1, 2, 3, 4

The following is a summary of climate-related disclosure requirements as they apply to the Main Board. The Main Board Reporting Guide includes related environmental and social disclosures (e.g., regarding other environmental impacts and supply chain management), which are generally not addressed here. HKEX also maintains a separate Reporting Guide for issuers listed on the Growth Enterprise Market (GEM) Board, which is not addressed here.

In December 2020, the HKEX and six other Hong Kong agencies announced a long-term Strategic Plan to develop sustainable finance in Hong Kong. As part of the Strategic Plan, the agencies committed to implement mandatory TCFD-aligned climate-related disclosures by 2025.

Reporting Frequency: Annually

Hong Kong – HKEX Listing Rules on ESG Reporting				
Covered Entities	Information Disclosed	Compliance Obligation	Audit Requirement	Sanctions
<ul style="list-style-type: none"> Entities listed on the Main Board of the Hong Kong Stock Exchange 	<ul style="list-style-type: none"> Mandatory Disclosures: <ul style="list-style-type: none"> A statement from the board on the issuer's governance structure, including description of the board's oversight of ESG issues, ESG management approach and strategy and progress against ESG goals and targets A description of the reporting principles used to make disclosures, including quantitative information on emissions and energy consumption reporting (e.g., standards, methodologies, assumptions, calculation tools and source of conversion factors) Narrative describing the reporting boundaries (e.g., which entities and operations are included in the ESG report and why) "Comply or Explain" General Disclosures¹: <ul style="list-style-type: none"> Information on emissions policies, laws and regulations that impact the issuer Policies on the efficient use of resources, including energy Policies on minimising the issuer's significant impacts on the environment and natural resources Policies on identification and mitigation of significant climate-related issues which have impacted, and those which may impact, the issuer "Comply or Explain" KPIs: <ul style="list-style-type: none"> The types of emissions and respective emissions data Scope 1 and Scope 2 GHG emissions (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility) Description of emission target(s) set and steps taken to achieve them Direct and/or indirect energy consumption by type (e.g. electricity, gas or oil) in total (kWh in '000s) and intensity (e.g. per unit of production volume, per facility) Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them Description of the significant climate-related issues which have impacted, and those which may impact, the issuer, and the actions taken to manage them 	<ul style="list-style-type: none"> An ESG report may be presented as information in the issuer's annual report or in a separate report Regardless of the format adopted, the ESG report must be published on the Exchange's website and the issuer's website The issuer is encouraged to publish the ESG report at the same time as the publication of the annual report. In any event, the issuer should publish the ESG report as close as possible to, and no later than five months after, the end of the financial year. In April 2021, the HKEX launched a consultation on proposals that would require reports to be published at the same time as annual reports. 	<ul style="list-style-type: none"> Not required The issuer may seek independent assurance to strengthen the credibility of the ESG information disclosed <ul style="list-style-type: none"> Where independent assurance is obtained, the issuer should describe the level, scope and processes adopted for the assurance given clearly in the ESG report Issuers may choose to obtain external assurance for all or part of its ESG Report, so long as the scope of assurance is clearly set out in the ESG report While a globally-accepted standard specifically for ESG reports is yet to be developed, HKEX refers issuers to ISAE 3000 	<ul style="list-style-type: none"> A listed entity and its directors, senior managers, substantial shareholders and professional advisers are potentially subject to sanctions for breach of the Listing Rules Sanctions range from private reprimands to public censures and can include delisting

¹ **What is a "Comply-or-Explain" requirement?:** Covered entities may choose to either comply with the requirement by making the specific disclosures required, or explain why they do not. These requirements are a popular tool among sustainability disclosure regimes, as they encourage the market to decide what information is most important to disclose.

Singapore – SGX Sustainability Reporting Requirements: In June 2016, SGX introduced sustainability reporting on a "comply or explain" basis to complement financial reporting. Taken together, the combined financial and sustainability reports are intended to enable a better assessment of the issuer's financial prospects and quality of management. Climate-related disclosures should be made if they are considered "material ESG factors" for an issuer, though there is currently no specific requirement for carbon or climate-related matters to be disclosed (but, see the further Singaporean proposals on environmental risk management as discussed in the next section). Sources: [1](#), [2](#), [3](#)

Reporting Frequency: Annually

Covered Entities	Information Disclosed	Compliance Obligation	Audit Requirement	Sanctions
<ul style="list-style-type: none"> • All SGX-listed issuers 	<ul style="list-style-type: none"> • Matters to be reported on are: <ul style="list-style-type: none"> ○ Material ESG factors ○ Policies, practices and performance ○ Targets ○ Sustainability reporting framework ○ Board statement • There is no specific requirement for climate or carbon-related matters to be disclosed. However, on 12 December 2017 the SGX stated that it will include TCFD Recommendations (as discussed in the next section) within existing guidance as additional resources for companies when they have implemented the current reporting requirements. • Issuer can choose which international ESG standards to use for disclosure. More information on leading ESG disclosure standards is set out overleaf. 	<ul style="list-style-type: none"> • Disclosures to be made in a sustainability report • Where the issuer cannot report on any primary component, the issuer must state so and explain what it does instead and the reasons for doing so • Issuer required to prepare a statement of the Board on the Board having considered sustainability issues as part of its strategic formulation • Issuer required to select a sustainability reporting framework which is appropriate for and suited to its industry and business model, and explain its choice • Reports should: <ul style="list-style-type: none"> ○ Set out the issuer's targets for the forthcoming year in relation to each material ESG factor identified ○ Identify material ESG factors, and describe both the reasons for and the process of selection, taking into consideration their relevance to the business, strategy, business model and key stakeholders 	<ul style="list-style-type: none"> • Not required, but the issuer should consider whether it would be worthwhile to undertake independent external assurance on selected important aspects of its report even in its initial years, and expand coverage in succeeding years 	<ul style="list-style-type: none"> • SGX has wide-ranging powers in respect of breaches of its listing rules, ranging from warnings through to delisting

What are the leading voluntary ESG disclosure standards?

Many organisations have put a great deal of work into developing a range of voluntary ESG disclosure standards, which are currently used by thousands of companies to report important sustainability information. Often, regulators (like the SGX) will refer to these standards when issuing their own voluntary or mandatory reporting regimes.

Some of the leading voluntary standards, each of which addresses climate disclosures, are issued by:

- [Global Reporting Initiative \(GRI\)](#)
- [Sustainability Accounting Standards Board \(SASB\)](#)
- [International Integrated Reporting Council \(IIRC\)](#)
- [CDP \(formerly the Carbon Disclosure Project\)](#)
- [Climate Disclosure Standards Board \(CDSB\)](#)
- [Task-force on Climate Related Disclosures \(TCFD\)](#)

In addition, the International Financial Reporting Standards Foundation (IFRS Foundation) announced in late 2020 that it would pursue development of an international, harmonised sustainability reporting standard. The IFRS Foundation proposal has the support of the leading voluntary standard setters listed above, and could therefore represent a significant step toward global alignment on a single set of sustainability reporting requirements.

EU – Non-Financial Reporting Directive: The Non-Financial Reporting Directive (Directive 2014/95/EU, the **NFRD**) is an amendment to the Accounting Directive (Directive 2013/34/EU). It requires certain large companies to include a non-financial statement as part of their annual public reporting obligations. It does not specifically mandate climate-related disclosures. A consultation launched in February 2020 (the **Consultation**) undertook a review of the Directive with a view toward the European Commission issuing a proposal for an updated NFRD in 2021. [Source: 1](#)

Key climate-related outcomes of the Consultation were that:

- Respondents favoured a requirement to report on climate scenario analysis
- 60% of respondents agreed that the legal provisions related to non-financial reporting should define environmental matters on the basis of the six objectives of the EU Taxonomy Regulation. The first two of such six objectives are climate change mitigation and climate change adaptation, respectively
- Many respondents argued that the revised NFRD should be aligned with the EC Non-Binding Guidelines on Climate Reporting, and as much as possible in the EU context with widely adopted frameworks (e.g. TCFD or GRI)

The Consultation also asked respondents to name any other useful frameworks or standards. The most frequently mentioned additional framework was the TCFD.

EU – Non-Financial Reporting Directive

On 21 April 2021, the Commission adopted a proposal for a Corporate Sustainability Reporting Directive (**CSRD**), which would amend the existing reporting requirements of the NFRD. The proposal extends the scope to all large companies and all companies listed on regulated markets (except listed micro-enterprises) requires the audit (assurance) of reported information introduces more detailed reporting requirements, and a requirement to report according to mandatory EU sustainability reporting standards, requires companies to digitally 'tag' the reported information, so it is machine readable and feeds into the European single access point envisaged in the [Capital Markets Union Action Plan](#).

Reporting Frequency: Dependent on reporting framework in EU Member States

Covered Entities	Information Disclosed	Compliance Obligation	Audit Requirement	Sanctions
<ul style="list-style-type: none"> • Applies to large Public Interest Entities with more than 500 employees • This includes large listed companies, and large banks and insurance companies (whether listed or not) if they have more than 500 employees 	<ul style="list-style-type: none"> • The NFRD identifies four sustainability issues in respect of which disclosures should be made: <ul style="list-style-type: none"> ○ Environment ○ Social and employee issues ○ Human rights ○ Bribery and corruption 	<ul style="list-style-type: none"> • Companies under the scope of the NFRD had to report according to its provisions for the first time in 2018 (for financial year 2017) • Requires companies to disclose information about <ul style="list-style-type: none"> ○ Business model ○ Policies (including implemented due diligence processes), outcomes ○ Risks and risk management, ○ Key performance indicators (KPIs) relevant to the business ○ No requirement for use of a non-financial reporting standard or framework ○ Does not impose detailed disclosure requirements such as lists of indicators per sector ○ Requires companies to disclose information "to the extent necessary for an understanding of the development, performance, position and impact of [the company's] activities" 	<ul style="list-style-type: none"> • Dependent on reporting framework in individual EU Member States 	<ul style="list-style-type: none"> • Dependent on reporting framework in individual EU Member States

Risk Management

We are now entering a new era of climate risk reporting and analysis, with a much greater emphasis on digging deeper into the risks that a business/financial institution will need to face in the future, including by way of scenario modelling. Regulators around the world are now exploring comprehensive regulatory regimes and guidance comprising climate-related governance, strategy, operational and risk management requirements, in addition to disclosure obligations, applicable to a range of entities. These regimes often draw upon the plethora of ESG-related standards already in the market, including the standards set out above on page 9.

Increasingly, the leader of the pack is the Task Force on Climate-Related Disclosures (**TCFD**). The TCFD's recommendations have already attracted considerable support internationally. More than 2,000 organisations worldwide, spanning nonfinancial and financial organisations, have now formally indicated their support for the recommendations. Increasingly, regulators are doing so too – by the end of 2020, regulators in the UK and Hong Kong committed to implement mandatory TCFD-aligned climate-related disclosure regimes by 2025.

We have analysed below the commonalities among these "comprehensive" climate risk management regimes that we have noticed to date:

- Boards are often required to oversee an organisation's approach to climate risk, while management must implement strategies. In both cases, key personnel must have the capacity to understand and respond to climate risks.
- Increasingly, organisations must embed climate risk into their operations. For example, investors may be required to integrate ESG factors, including climate risk, into their investment due diligence and portfolio construction processes.
- Organisations are encouraged to embed climate-related risks into existing risk management frameworks, but climate-related risks must be assessed on longer time horizons than other non-financial risks and specific scenario analyses may be required.
- Regulators often refer to the TCFD Recommendations to define disclosure regimes, as well as the contours of broader climate risk management frameworks (i.e., by focusing on the four thematic areas of governance, strategy, risk management and metrics). Regimes often adopt the TCFD's climate risk framework by categorizing climate risk into both physical and transition risks.

These regimes may require significant compliance efforts involving stakeholders at all levels of an organisation. It is therefore key to understand their implications at an early stage and prepare to meet future requirements around governance, strategy, operations, risk management and disclosures.

In this section, we highlight a selection of existing and proposed comprehensive climate risk management regimes in the United Kingdom, Singapore, Hong Kong and the United States, as well as the leading framework upon which many such regimes are based, the TCFD.

TCFD overview:

The Financial Stability Board established the TCFD in December 2015 to design a set of recommendations for consistent "disclosures that will help financial market participants understand their climate-related risks." TCFD members include banks, insurance companies, asset managers, pension funds, large non-financial companies, accounting and consulting firms and credit rating agencies.

In June 2017, the TCFD published its [Recommendations](#), which provide a foundational framework for understanding climate-related risks and opportunities, as well as recommendations for disclosures in four thematic areas: governance, strategy, risk management and metrics and targets. Since then, the TCFD has issued supplementary publications including, in October 2020, [Guidance on Risk Management Integration and Disclosure](#). The following table summarises key components of the TCFD, drawing from both the June 2017 Recommendations and October 2020 Guidance.

Scope	Risk Framework	Governance Disclosures and Guidance	Strategy Disclosures and Guidance	Risk Management Disclosures and Guidance	Metrics and Targets Disclosures and Guidance
<ul style="list-style-type: none"> The Recommendations include general guidance for all sectors, plus sector-specific guidance for the following industries and groups: <ul style="list-style-type: none"> Banks Insurance companies Asset owners Asset managers Energy Transportation Materials and Buildings Agriculture, Food and Forest Products 	<ul style="list-style-type: none"> Transition risks arise from the transition to a lower-carbon economy, which may entail extensive policy, legal, technology and market changes Transition risks include: <ul style="list-style-type: none"> Policy and legal risks (e.g., implementation of carbon-pricing mechanisms or climate-related litigation) Technology risks (e.g., the development of renewable energy technologies that will affect the competitiveness of certain organisations) Market risk (e.g., changes in supply and demand related to climate) 	<ul style="list-style-type: none"> Organisations should disclose: <ul style="list-style-type: none"> The Board's oversight of climate-related risks and opportunities (e.g., process and frequency by which the Board is informed about climate-related issues and how the Board oversees progress against climate-related goals and targets) 	<ul style="list-style-type: none"> Organisations should disclose: <ul style="list-style-type: none"> Climate-related risks and opportunities over the short, medium and long term (e.g., a description of what the organisation considers to be short-, medium- and long-term horizons and the specific climate-related issues that could have a material financial impact on the organisation for each) 	<ul style="list-style-type: none"> Organisations should disclose: <ul style="list-style-type: none"> Processes for identifying and assessing climate-related risks (e.g., whether they consider regulatory requirements related to climate change and processes for assessing the size and scope of identified risks) Processes for managing climate-related risks (e.g., how risks are prioritised and materiality is determined) 	<ul style="list-style-type: none"> Organisations should disclose: <ul style="list-style-type: none"> Metrics used to assess climate-related risks and opportunities in line with strategy and risk management processes (e.g., metrics associated with water, energy and land use and waste management) Scope 1, Scope 2 and, if appropriate, Scope 3 GHG emissions and related risks Targets used to manage climate-related risks and opportunities and performance against targets (e.g., time-bound target GHG emissions, water usage, etc., in line with anticipated regulatory requirements)

Scope	Risk Framework	Governance Disclosures and Guidance	Strategy Disclosures and Guidance	Risk Management Disclosures and Guidance	Metrics and Targets Disclosures and Guidance
	<ul style="list-style-type: none"> ○ Reputation risk (e.g., changing customer perceptions vis-à-vis an organisation's approach to climate risk) ● Physical risks arise from short-term weather events or longer-term shifts in climate patterns ● Physical risks may be: <ul style="list-style-type: none"> ○ Acute (e.g., increased severity of extreme hurricanes and floods) ○ Chronic (e.g., sustained higher temperatures and sea level rise) 	<ul style="list-style-type: none"> ○ Management's role in assessing and managing climate-related risks and opportunities (whether the organisation has assigned climate-related responsibilities to managers and how they monitor climate-related issues) 	<ul style="list-style-type: none"> ○ Impacts of such risks and opportunities on the organisation's businesses, strategy and financial planning (e.g., how climate-related risks impact products and services, supply chains and operations, as well as operating costs, revenues, CAPEX, M&A, etc.) ○ Resilience of the organisation's strategy, considering different climate-related scenarios (specifically including a 2°C or lower scenario) 	<ul style="list-style-type: none"> ○ How processes for identifying, assessing and managing climate-related risks are integrated into the organisation's overall risk management ● Principles for integrating climate risk into risk management processes include: <ul style="list-style-type: none"> ○ Interconnections (e.g., integration should involve all relevant functions, departments and experts) ○ Temporal orientation (e.g., risks should be analysed across short-, medium- and long-term time frames) ○ Proportionality (e.g., integration should be proportionate in relation to other risks and materiality of exposure) ○ Consistency (e.g., the methodology for integrating climate-related risks should be consistent with existing risk management processes) 	<ul style="list-style-type: none"> ● GHG emissions should be calculated using the GHG Protocol methodology <ul style="list-style-type: none"> ○ Organisations should also consider disclosing related, generally accepted industry-specific GHG efficiency ratios ● Effective disclosures should: <ul style="list-style-type: none"> ○ Be presented in sufficient detail ○ Account for different time horizons ○ Provide a thorough overview of climate-related risks ○ Communicate financial information that serves the needs of a range of financial sector users in sufficient granularity ○ Balance quantitative and qualitative information ○ Explain any changes in reporting formats or approaches

Climate Risk Management Regimes Around the World

Hong Kong – SFC Consultation on Climate Risk Management for Fund Managers: On 29 October 2020, the Securities and Futures Commission (SFC) issued a "Consultation Paper on the Management and Disclosure of Climate-related Risks by Fund Managers" including proposed amendments to the Fund Manager Code of Conduct that would require fund managers to consider climate-related risks in their investment and risk management processes. The amendments would also require fund managers to make appropriate disclosures to meet investors' growing demands for climate risk information and combat greenwashing. In December 2020, the SFC and six other Hong Kong agencies announced a long-term Strategic Plan to develop sustainable finance in Hong Kong. As part of the Strategic Plan, the agencies committed to implement mandatory TCFD-aligned climate-related disclosures by 2025. [Sources: 1, 2](#)

Covered Entities	Risk Framework	Governance Requirements	Operational / Strategy Requirements	Risk Management Requirements	Disclosures
<ul style="list-style-type: none"> • Fund managers that manage "Collective Investment Schemes" <ul style="list-style-type: none"> ○ Not mandatory for fund managers managing only discretionary accounts in the form of an investment mandate or a pre-defined model portfolio • "Large Fund Managers" are subject to enhanced requirements <ul style="list-style-type: none"> ○ "Large Fund Managers" have monthly total fund assets and discretionary account assets under management that equal or exceed HK\$4 billion for any three months during the prior 12 months 	<ul style="list-style-type: none"> • Adopts the TCFD framework, plus standalone "liability risk" category • Liability risk arises from the threat that a person or company may seek compensation for losses caused by climate change 	<ul style="list-style-type: none"> • The Board must: <ul style="list-style-type: none"> ○ Oversee the incorporation of climate-related considerations into investment and risk management processes ○ Oversee the firm's progress against goals for addressing climate-related issues • Management must: <ul style="list-style-type: none"> ○ Maintain an appropriate structure for managing climate-related risks and reporting to the Board ○ Develop related action plans, controls and procedures 	<ul style="list-style-type: none"> • Fund managers "should ensure that climate-related risks are taken into account in [the] investment management process for funds." <p>Fund managers must:</p> <ul style="list-style-type: none"> • Identify climate-related risks: <ul style="list-style-type: none"> ○ Consider physical, transition and liability risks relevant to investment strategies and funds, assess impacts and prioritise material risks in investment processes ○ The consultation paper refers to the TCFD Recommendations for assistance in identifying specific risks 	<ul style="list-style-type: none"> • Fund managers "should implement adequate procedures for identifying, assessing, managing and monitoring material climate-related risks" • Fund managers can refer to methodologies in international reporting frameworks, including SASB and UN Principles for Responsible Investment • All fund managers must: <ul style="list-style-type: none"> ○ Adopt appropriate risk management measures, including reallocating assets under management and exercising stewardship through engagement and voting ○ Monitor any risks that they determine to be immaterial, and re-evaluate materiality assessments periodically 	<ul style="list-style-type: none"> • All fund managers must disclose: <ul style="list-style-type: none"> ○ Governance arrangements for the oversight of climate-related risks ○ How climate-related risks are taken into account during investment and risk management processes ○ The types of investment strategies or funds under their management for which they have determined climate-related risks to be irrelevant • Large Fund Managers must disclose: <ul style="list-style-type: none"> ○ A description of their engagement policy ○ Fund-level WACI for funds where climate-related risks are determined to be material ○ Scope 1 and Scope 2 GHG gas emissions data, together with the applicable calculation methodology, underlying assumptions and limitations, as well as the proportion of investments assessed or covered

Covered Entities	Risk Framework	Governance Requirements	Operational / Strategy Requirements	Risk Management Requirements	Disclosures
<ul style="list-style-type: none"> • Less stringent "baseline requirements" for all other covered fund managers 		<ul style="list-style-type: none"> • Set specific goals for addressing climate-related issues 	<ul style="list-style-type: none"> • Determine relevance and materiality of climate-related risks: <ul style="list-style-type: none"> ○ Consider climate risks on medium- to long-term time horizons ○ Apply both qualitative and quantitative assessment methods • Factor material climate-related risks into the investment process: <ul style="list-style-type: none"> ○ The SFC highlights various integration options including exclusionary screening, best-in-class screening, norms-based screening and impact investing strategies • Fund managers should disclose how they consider material climate-related risks in their portfolio construction processes 	<ul style="list-style-type: none"> • Large Fund Managers must: <ul style="list-style-type: none"> ○ Make "reasonable efforts" to acquire or estimate the weighted average carbon intensity (WACI) of Scope 1 and Scope 2 GHG gas emissions for certain funds ○ Assess the relevance and utility of scenario analysis for evaluating the climate resilience of their strategies and keep internal records of those assessments ○ If an assessment proves to be relevant and useful, develop a plan to implement the related scenario analysis within a reasonable timeframe ○ To develop scenario analyses, Large Fund Managers may refer to the climate scenarios and data provided by the Network of Central Banks and Supervisors for Greening the Financial System 	<ul style="list-style-type: none"> ○ Other relevant metrics to supplement a portfolio's WACI, including Leadership in Energy and Environmental Design (LEED) and National Australian Built Environment Rating System (NABERS) ratings for real estate

Singapore – MAS Consultation on Environmental Risk Management Guidelines: On 8 December 2020, the Monetary Authority of Singapore (MAS) issued a series of "Guidelines on Environmental Risk Management" tailored to financial institutions in three sectors: asset management, banking and insurance. The below summarises the proposed guidelines as they relate to asset managers only. [Source: 1](#)

For more information about these Guidelines, please see our legal updates [here](#) and [here](#).

Covered Entities	Risk Framework	Governance Requirements	Operational / Strategy Requirements	Risk Management Requirements	Disclosures
<ul style="list-style-type: none"> • Registered fund management companies • Holders of a capital markets licence for fund management and real estate investment trust management 	<ul style="list-style-type: none"> • Adopts the TCFD framework, plus standalone "reputational risk" category • Reputational risk arises when asset managers make investments into companies that have a negative impact on the environment, creating a negative perception of the asset manager that may adversely affect its ability to maintain or grow AUM 	<ul style="list-style-type: none"> • The Board (or a committee thereof) is responsible for: <ul style="list-style-type: none"> ○ Approving an environmental risk management framework and related policies ○ Setting the roles and responsibilities of the Board and senior management with respect to the framework ○ Ensuring that management has adequate expertise and resources for managing environmental risk • Senior managers are responsible for: <ul style="list-style-type: none"> ○ Developing, implementing and reviewing the environmental risk management framework ○ Establishing an escalation process for managing environmental risk ○ Allocating resources appropriately 	<ul style="list-style-type: none"> • Asset Managers should: <ul style="list-style-type: none"> ○ Embed environmental risk considerations in research and portfolio construction processes ○ Refer to international standards and frameworks (e.g., GRI) when considering transition and physical risks at an individual asset and/or portfolio level ○ Identify sectors of higher environmental risk ○ Be mindful of limits that their customers may set on exposure to specific sectors or types of activities, like sector limits on investments in the fossil fuel industry or caps on portfolio-wide carbon emissions ○ Actively shape the corporate behaviour of their investee companies with sound stewardship practices, including through engagement, proxy voting and sector collaboration • Examples to reference when considering the materiality of environmental risk for different asset classes include: <ul style="list-style-type: none"> ○ Fixed income investments: consider environmental indicators from external data providers, in addition to such information provided by the issuer, to obtain a more holistic view of environmental risk ○ Direct real estate investments: consider operational indicators (e.g., greenhouse gas emissions and energy, water and waste management data), extreme weather events, and the effects that both of these factors may have on tenant demand 	<ul style="list-style-type: none"> • Asset managers should: <ul style="list-style-type: none"> ○ Monitor, assess and manage the material potential and actual impacts of environmental risk on both individual investments and portfolios on an ongoing basis ○ Develop capabilities in scenario analysis to evaluate portfolio resilience under different environmental risk scenarios (e.g., with sensitivity to a diverse array of changes from temperature increases to sea level rise) ○ Engage in capacity building by providing environmental risk management training to staff 	<ul style="list-style-type: none"> • Asset managers should disclose: <ul style="list-style-type: none"> ○ Their environmental risk management approach to stakeholders ○ The potential impact of material environmental risks with reference to quantitative metrics • Disclosures should be in accordance with well-regarded international reporting frameworks, like the TCFD, GRI, CDP, CDSB, IIRC and SASB

United Kingdom – BOE Supervisory Statement SS3/19: On 15 April 2019, the Prudential Regulatory Authority (PRA) of the Bank of England issued Supervisory Statement SS3/19 on "Enhancing Banks' and Insurers' Approaches to Managing the Financial Risks from Climate Change". SS3/19 sets out the PRA's expectations for banks and insurers with regard to climate risk. In July 2020, the PRA issued a letter to financial institutions asking them to fully implement the requirements of SS3/19 by the end of 2021. Sources: 1, 2

Covered Entities	Risk Framework	Governance Requirements	Operational / Strategy Requirements	Risk Management Requirements	Disclosures
<ul style="list-style-type: none"> • Insurance and reinsurance firms • Banks • Building societies • PRA-designated investment firms 	<ul style="list-style-type: none"> • Adopts the TCFD framework 	<ul style="list-style-type: none"> • Boards are expected to: <ul style="list-style-type: none"> ○ Understand and assess financial risks from climate change that affect the firm ○ Address and oversee climate risks within the firm's overall business strategy and risk appetite ○ Oversee risk management and controls ○ Ensure adequate resources and sufficient skills and expertise are devoted to managing financial risks from climate change • Both the Board and executive management should identify and allocate responsibility for identifying and managing financial risks from climate change among Senior Management Functions and include them in the Statement of Responsibilities 	N/A	<ul style="list-style-type: none"> • Firms are expected to address the financial risks from climate change through existing risk management frameworks, in line with the board-approved risk appetite statement • Firms should: <ul style="list-style-type: none"> ○ Use scenario analysis and stress testing to inform the risk identification process and go beyond using historical data only ○ Report information on exposure to climate risks to the Board • As part of ICAAP for banks or ORSA for insurers, firms should include: <ul style="list-style-type: none"> ○ All material exposures relating to the financial risks from climate change ○ An assessment of how firms have determined the material exposures in the context of their business • Solvency II insurers should consider whether there is excessive accumulation of financial risks from climate change in their portfolio and consider mitigants • Scenario analyses should include: <ul style="list-style-type: none"> ○ Short-term assessment setting out the firm's exposure to the financial risks from climate change within its existing business planning horizon, including quantification where appropriate ○ Long-term assessment of the firm's exposure, based on its current business model, of a range of different climate-related scenarios (e.g., an increase in global temperature of 2°C or in excess of 2°C) 	<ul style="list-style-type: none"> • In addition to meeting existing requirements to disclose information on material risks (e.g., Pillar 3 disclosures, etc.), firms should: <ul style="list-style-type: none"> ○ Consider whether further disclosures are necessary to enhance transparency on their approach to managing climate risk ○ Develop and maintain an appropriate approach to disclosure of climate risk • Recognise the increasing possibility that disclosure will be mandated in more jurisdictions, and prepare accordingly • Engage with other initiatives on climate-related disclosure, including the TCFD

United States – NY DFS Letter to Regulated Financial Institutions re Climate Change and Financial Risks: On 29 October 2020, the New York Department of Financial Services (DFS) issued a letter to various regulated financial institutions to provide background information on climate risks and outline DFS’s expectations. On 22 September 2020, the DFS issued a similar letter to domestic and foreign insurance companies. The below summarises the 29 October letter only. Sources: 1, 2

Covered Entities	Risk Framework	Governance Requirements	Operational / Strategy Requirements	Risk Management Requirements	Disclosures
<ul style="list-style-type: none"> • "Regulated Organisations", including: <ul style="list-style-type: none"> ○ New York regulated banking organisations ○ New York licensed branches ○ Agencies of foreign banking organisations ○ New York regulated mortgage bankers and mortgage servicers ○ New York regulated limited purpose trust companies • "Regulated Non-Depositories", including: <ul style="list-style-type: none"> ○ New York regulated money transmitters ○ Licensed lenders ○ Sales finance companies ○ Premium finance agencies ○ Virtual currency companies 	<ul style="list-style-type: none"> • Adopts the TCFD framework 	<ul style="list-style-type: none"> • Regulated Organisations should: <ul style="list-style-type: none"> ○ Start integrating the financial risks from climate change into their governance frameworks ○ Designate a board member, a committee of the board (or an equivalent function), as well as a senior management function, as accountable for the organisation’s assessment and management of the financial risks from climate change 	<ul style="list-style-type: none"> • Regulated Organisations should: <ul style="list-style-type: none"> ○ Start integrating the financial risks from climate change into their business strategies • Regulated Non-Depositories should: <ul style="list-style-type: none"> ○ Start developing strategic plans, including an outline of climate risks, the impact on their balance sheets, and steps to be taken to mitigate such risks 	<ul style="list-style-type: none"> • Regulated Organisations should: <ul style="list-style-type: none"> ○ Start integrating the financial risks from climate change into their risk management frameworks ○ Conduct an enterprise-wide risk assessment to evaluate climate change and its impacts on risk factors, such as credit risk, market risk, liquidity risk, operational risk, reputational risk, and strategy risk • Regulated Non-Depositories should: <ul style="list-style-type: none"> ○ Conduct a risk assessment of the physical and transition risks of climate change, whether directly impacting them, or indirectly due to the disruptive consequences of climate change in the communities they serve and on their customers, such as business disruptions, out-migrations, loss of income and higher default rates, supply chain disruptions, and changes in investor and consumer sentiments 	<ul style="list-style-type: none"> • Regulated Organisations should: <ul style="list-style-type: none"> ○ Start developing their approach to climate-related financial risk disclosure ○ Consider engaging with the TCFD and other established initiatives

How can we help?

Mayer Brown has a strong track record in helping clients address ESG issues, and our legal experts are well-equipped to help our clients take the steps necessary to become more attractive to investors looking for socially responsible enterprises, and to address the increasing regulatory and litigation exposures arising from ESG factors. We routinely advise clients on matters relating to:

- Business and Human Rights
- Sustainable and Green Finance
- Impact Investing
- Climate Change
- Corporate Governance
- ESG Disclosures

Our integrated approach to ESG, involving lawyers from multiple practice groups and locations globally, allows us to seamlessly support clients around the world.



Michael Hutchinson
mhutchinson@mayerbrown.com
T +44 20 3130 3164

Michael is a partner in the London environmental and planning team of Mayer Brown. Michael advises clients on energy procurement issues, including negotiating supply and connection agreements, as well as the EU Emissions Trading Scheme. He is a key contact point for the ESG Initiative within Mayer Brown. Consistently ranked as a leading individual by the legal directories and highly rated amongst his peer group.



Mark Uhryuk
mark.uhryuk@mayerbrown.com
T +852 2843 4307

Mark is a partner of Mayer Brown resident in the Hong Kong office. Mark represents assets managers, family offices and other investor groups, corporations, and financial institutions in a variety of transactional matters. He is a key contact point for the ESG Initiative within the Mayer Brown network and is a founding member of the Firm's ESG Steering Committee.



Tim Baines
tbaines@mayerbrown.com
T +44 20 3130 3073

Tim is counsel in the London environmental and planning team of Mayer Brown. Tim has considerable knowledge of UK planning and environmental regimes, renewables incentives regimes, and emissions and climate-related matters. Tim is a key contact point for the ESG Initiative within the Mayer Brown network and is a founding member of the Firm's ESG Steering Committee.



Alexander W. Burdulia
alexander.burdulia@mayerbrown.com
T +852 2843 4241

Alex is a Registered Foreign Lawyer in the Corporate & Securities practice in Mayer Brown's Hong Kong office. He is a key contact point for the ESG Initiative within the Mayer Brown network and a founding member of the Firm's ESG Steering Committee. Alex was responsible for sustainable finance regulatory, policy and advocacy matters while serving as the Head of APAC Public Policy on secondment at a leading international bank. He is a GRI Certified Sustainability Professional and a frequent author on ESG-related topics.

This publication provides information and comments on legal issues and developments of interest to our clients and friends. The material is not a comprehensive treatment of the subject matter covered and is not intended to provide legal advice. Readers should seek specific legal advice before taking any action with respect to the matters discussed in this publication.

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