

The Climate Journey

OSFI B-15 Climate Risk Management: Building Capacity to Meet New Regulations While Managing Costs



Building a better working world

- ▶ On March 7, 2023^[2], OSFI published Guideline B-15: Climate Risk Management, which sets out OSFI's expectations for the management of climate-related risks.
- ▶ On March 20, 2024^[4], OSFI has released updates to the Guideline B-15: Climate Risk Management. The updates align the disclosure expectations for FRFIs in Guideline's Annex 2-2 with the International Sustainability Standards Board (ISSB)'s IFRS S2 standard, streamlining climate disclosures and enhancing transparency of climate-related risks.
- ▶ The Guideline will be effective fiscal year-end 2024 for Domestic Systemically Important Banks (DSIBs) and Internationally Active Insurance Groups (IAIGs) headquartered in Canada. For all other in-scope FRFIs, the Guideline will become effective at fiscal year-end 2025.

The importance of climate risk management: from regulatory expectations to strategic actions

“ The adoption of sound climate risk management practices at financial institutions will give OSFI confidence that those institutions have the necessary policies and procedures in place to manage financial risks. - Peter Routledge, Superintendent of Financial Institutions^[1] ”

Introduction

The Office of the Superintendent of Financial Institutions (OSFI) has issued a guideline on climate risk management that recognizes the need for action and the constantly changing nature of climate risk management: B-15. This strategic move aims to enhance the Canadian financial sector's resilience to climate-related risks and catalyze its role in climate change mitigation. The guideline underscores the importance of acknowledging and managing both transition and physical risks associated with climate change. These efforts align with a broader global trend where regulatory bodies are increasingly mandating comprehensive climate risk reporting and transparency.

OSFI expects financial institutions to achieve the following outcomes:

- ▶ Understand and mitigate against potential impacts of climate-related risks to its business model and strategy;
- ▶ Have appropriate governance and risk management practices to manage identified climate-related risks.
- ▶ Remain financially resilient through severe, yet plausible, climate risk scenarios, and operationally resilient through disruption due to climate-related disasters.

What is the purpose of this paper?

This paper highlights the key disclosure expectations from OSFI's Guideline B-15: Climate Risk Management, including key capabilities expected from institutions and market insights. Additionally, it will discuss how technology can enable new capabilities and streamline processes, in addition to how to get started on one's climate journey.

EY Carbonhound Collaboration

Ernst & Young Canada ("EY") and Carbonhound are forming a strategic relationship to assist financial institutions in the mid-market segments with enhancing their climate risk capabilities in line with OSFI requirements. This collaboration is set to provide a blend of deep EY subject matter experience in Sustainability, Risk Management, Data and Technology and Carbonhound's innovative technology solutions, emphasizing the delivery of value by showing how financial organizations can confidently meet the requirements of the B-15 guideline while reducing their costs. The collaboration underscores a commitment to fostering a resilient and sustainable financial sector through advanced climate risk management and regulatory compliance practices.



carbonhound

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OSFI B-15 Introduction



Section 1.A: OSFI Guideline B-15 general requirements

Background and purpose

OSFI published Guideline B-15: Climate Risk Management, which aims to provide FRFIs with guidelines on promoting preparedness and resilience to climate-related risks for implementation of governance and risk management practices.

The purpose of this guideline is for FRFIs to:

- ▶ Develop a comprehensive understanding of climate-risk implications to its business model and strategy;
- ▶ Implement appropriate governance and risk management practices;
- ▶ Remain financially and operationally resilient against severe, yet plausible, climate scenarios and their disruptive consequences.



GOVERNANCE



SCENARIO ANALYSIS



CAPITAL AND LIQUIDITY ADEQUACY



RISK MANAGEMENT

Highlights

- | | | | |
|--|---|--|---|
| <ul style="list-style-type: none"> ▶ Having a suitable governance structure and operating model that includes clear responsibilities for managing climate risk. | <ul style="list-style-type: none"> ▶ Consider multiple climate models and scenarios covering a range of time horizons when climate risk could materialize. ▶ Consider scenarios that can capture both physical and transition risks that test different levels of severity. | <ul style="list-style-type: none"> ▶ Incorporate climate-related risks into their Internal Capital Adequacy Assessment Process (ICAAP) or Own Risk and Solvency Assessment (ORSA) process. ▶ Consider the impact of climate risk drivers on their liquidity risk profiles and adequacy of the overall buffers. | <ul style="list-style-type: none"> ▶ Incorporate climate risk into the Enterprise Risk Management (ERM) framework, relevant policies and procedures, and portfolio management functions. |
|--|---|--|---|

Role of Data & Technology

- | | | | |
|--|--|---|---|
| <ul style="list-style-type: none"> ▶ Develop transition plans that outline their approach to managing both physical and transition risks, including monitoring processes and methods for engaging with clients to support their transition to a low-carbon economy. | <ul style="list-style-type: none"> ▶ Scenarios planning technology can capture both physical and transition risks that test different levels of severity. ▶ Improve data quality to increase the validity of scenario modelling as data becomes available. | <ul style="list-style-type: none"> ▶ Baseline portfolio's exposure to climate-related risks and opportunities with climate experts, but provide relevant insights and data to stakeholders across the organization | <ul style="list-style-type: none"> ▶ Acquire the right data to support effective and timely decision-making as relevant to a FRFI's business operations. Where any data gaps exist, OSFI expects FRFIs to consider alternative data sources/proxies to mitigate. ▶ Develop climate risk reporting capabilities to monitor business performance against internal limits and assess effectiveness of its climate risk frameworks. |
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Section 1.B: OSFI Guideline B-15 disclosure requirements

Purpose of disclosure expectations

- ▶ Publicly disclosing climate-related risks will assist FRFIs in building confidence in their management, assist them in maintaining adequate access to capital and liquidity channels and improve the public's confidence in the resilience of the Canadian financial system.
- ▶ Disclosure mandates apply to all FRFIs on a consolidated basis, except for subsidiaries of such FRFIs that report consolidated results to OSFI.
- ▶ OSFI acknowledges that some of the underlying disclosure principles may cause application tension due to competing priorities within an FRFI. OSFI expects the FRFI to find an appropriate balance of disclosures that highlights key elements reflecting the FRFIs' performance without overwhelming stakeholders with unnecessary information.

Principles

1. Disclose relevant information addressing current and potential future impacts of climate risks and value creation opportunities.
2. Disclose specific and comprehensive data consistent with what is utilized for its internal investment and risk management decisions. Assumptions and any limitations should be explicit.
3. Present clear, balanced and understandable information, combining qualitative and quantitative data, and highlighting any developments they indicate over time and relevant trends.
4. Share reliable, verifiable and neutral information, traceable to sources and following industry practices to prepare for external independent assurance in the future.
5. Provide disclosure proportional to size, nature, and complexity, reflecting various business lines and geographic or sector dispersion. Exercise discretion to maintain transparency.
6. Disclose information consistently over time, allowing users to interpret the impact of climate risk over time and derive meaningful inter-period insights. Explain any restatements to maintain comparability.

B-15 Disclosure expectation summary



GOVERNANCE

- ▶ Board of directors' oversight of climate risks and opportunities
- ▶ Management's role in assessing/managing climate risk



STRATEGY

- ▶ Identified climate risks and opportunities
- ▶ Impact of climate risks and opportunities on business and strategy
- ▶ Transition plan
- ▶ Strategy resiliency to adverse climate scenarios



RISK MANAGEMENT

- ▶ Process for identifying and assessing climate risks
- ▶ Process for managing climate risks
- ▶ Integration with overall risk management



METRICS AND TARGETS

- ▶ Metrics used to assess climate risk
- ▶ Scope 1 & 2 GHG emissions
- ▶ Scope 3 GHG emissions
- ▶ Targets used to manage climate risk and performance against targets
- ▶ Cross-industry and industry-based metrics

Section 1.C: Insights from OSFI's B-15 Readiness Self-Assessment

Description

OSFI issued a B-15 readiness self-assessment questionnaire in May 2023 to assess the FRFIs readiness to meet the expectations from the B-15 Guideline on Climate risk management. OSFI received over 210 responses from in-scope deposit-taking institutions, life insurers and property and casualty insurers. OSFI announced to issue another questionnaire which is expected in early 2025 to assess FRFIs progress^[3]. There were four key themes identified:

Highlights

1 FRFIs are progressing to embed climate risk management into their governance structures, frameworks and processes.

Less than **40%**
of DTIs have formalized climate roles for management

Over **50%**
of FRFIs report climate risks to their boards

60%
of FRFIs are developing climate risk indicators for board reporting

2 FRFIs are in the early stages of quantifying the impacts of climate-related risks.

Approximately **40%**
FRFIs have assessed the impact of climate risks on credit, market, operational, and insurance risks in less than 20% of their portfolio. About 55% have done the same for liquidity, reputational, and strategic risks.

Over **40%**
of FRFIs have started or plan to implement climate scenario analysis, with slightly more focus on physical risks than transition risks. Insurers are more inclined to assess climate risks over longer time horizons compared to DTIs.

3 FRFIs are preparing to report on most categories of the expected climate-related financial disclosures.

About **60%**
About 60% of FRFIs report having full reporting capacity for governance, strategy, and risk management disclosure expectations.

Over **40%**
have full reporting capacity for metrics and targets, while more than 55% are ready to disclose Scope 1 and 2 greenhouse gas emissions.

However, FRFIs are least prepared to disclose Scope 3 emissions and face challenges in collecting, measuring, and reporting the expected disclosures.

4 FRFIs requested additional guidance from OSFI to help build capabilities to understand and manage climate-related risks.

FRFIs have requested assistance with climate-related data, Climate Transition Plans, quantifying longer-term risks, translating macroeconomic variables into financial impacts, incorporating climate risks into capital and liquidity assessments, and identifying scenarios for climate scenario analysis.

OSFI B-15 Disclosure timeline for small and medium FRFIs

May 2022

The OSFI releases draft guidelines on climate risk management. The report contains recommendations on governance, risk management, scenario analysis and stress testing, capital and liquidity assessment, and financial disclosures.

October 2025

Small and medium sized FRFI (SMSBs and non-IAIGs) are expected to implement the majority of B-15 Guideline disclosures for fiscal years ending on or after October 1, 2025. The FRFI may voluntarily adopt disclosure expectations ahead of schedule.

TBD

FRFIs are expected to disclose Climate Transition plan and resilience including physical and transition risk scenario Analysis.

March 2023

OSFI releases final B-15 guidelines

October 2026

Small and medium sized FRFIs are expected to disclose Scope 3 Greenhouse Gas (GHG) emissions (including financed emissions) and OSFI-specified industry-specific & cross-industry climate risk metrics aligned with IFRS S2.

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OSFI B-15 Disclosures



Section 2.A: OSFI B-15 Disclosure on Governance

	Disclosure Expectation	D-SIBs & IAIGs	SMSBs & Other Insurers
a)	Describe the governance body, their responsibilities in oversight of climate-related risks and opportunities, and whether and climate-related considerations are factored into remunerations.	2024	2025
b)	Describe management's role in monitoring, managing and overseeing climate-related risks and opportunities, including identify, governance processes, and oversight process.	2024	2025

Capabilities Needed From Financial Institutions



Climate Governance Framework

- Describe the institution's climate risk governance framework on climate risk.



Board of Directors Oversight

- Launch ESG-focused board committees.
- Incorporate climate risk topics in the Board discussions.



Management Oversight

- Assign specialized climate risk roles and responsibilities to existing senior leadership roles.



Skills and Culture

- Enrich board and management expertise through ESG trainings.
- Link climate-related KPI/KRIs with senior leadership remuneration.

HOW CAN WE HELP?

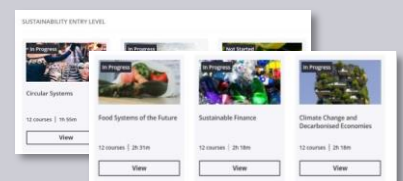
EY Target Operating Model (TOM)

EY ESG TOM defines what firm wants to achieve in short-, medium- and long-term, and describes how functions, capabilities and supporting elements will be managed or implemented to achieve the business vision and related set of strategic goals or objectives, including roles and responsibilities across 3 lines of defense.



EY ESG Board Training Program

EY Board trainings are developed by subject matter professionals, presented in an accessible format to allow for upskilling your organization.



Section 2.A: OSFI B-15 Disclosure on Governance

Governance Enabled by Technology

Oversight bodies, internal and external, need to have a common language to assess the climate-related risks and opportunities within an organization. There are international standards that set carbon emissions methodologies to aggregate operational data and translate into emissions insights (e.g., GHG Protocol, PCAF). Even standards-aligned reporting is done with varying degrees of completeness and estimations. Technology is necessary for leaders to effectively understand the quality of the data they have access to before making decisions on mitigation tactics.



Reliable & Timely Key Performance Indicators

The administrative burden of measuring and monitoring climate performance is a barrier to effectively setting and monitoring KPIs. Technology can eliminate the manual work required to set and monitor KPIs while unlocking just-in-time climate reporting.

Carbonhound's platform is designed to automate high-integrity monthly climate KPIs to:

- ▶ Empower management to review climate metrics on a monthly, quarterly or annual basis;
- ▶ Understand context and story behind climate performance;
- ▶ Access metadata showing how reliable all levels of climate data is, and where there is room to improve.



Data Transparency & Quality

Climate data is layered and complicated, therefore not easily synthesized and understood by non-climate experts. Technology can easily ingest data from primary sources - both internal and external - score the data quality against international standards and present it to leaders in an easy-to-understand format.

Carbonhound's platform is designed to present data in a transparent and digestible format to:

- ▶ Understand your organization's climate baseline data;
- ▶ Layer climate insights with data quality scores;
- ▶ Set targets aligned to any relevant industry framework;
- ▶ Monitor progress on emissions reductions and data quality improvements.

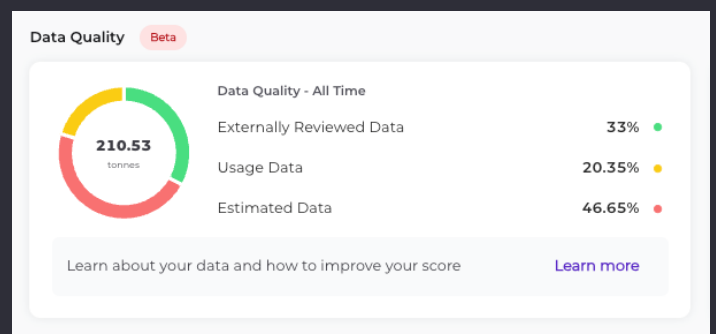


Scope 1, 2 & 3 Emissions Data

Monthly climate metrics enable timely and confident oversight capacity with management and the Board.

Emissions Metadata & Quality Scores

Carbonhound displays metadata summarizing the level of confidence that management and the Board can have in the metrics they are responsible for monitoring.



Section 2.B: OSFI B-15 Disclosure on Strategy

Strategy Disclosure Expectations

Disclosure Expectation	D-SIBs & IAIGs	SMSBs & Other Insurers
a) Describe the climate-related risks and opportunities the FRFI has identified that could reasonably be expected to affect its cashflows, access to finance or cost of capital.	2024	2025
b) i) Describe the impact of climate-related risks and opportunities on the FRFI's businesses model, strategy, and financial planning.	2024	2025
ii) Describe the FRFI's climate transition plan.	TBD	TBD
c) Describe the resilience of the FRFI's strategy, taking into consideration different climate-related scenarios, including a scenario which limits warming to the level aligned with the latest international agreement on climate change, or lower.	TBD	TBD

Capabilities Needed From Financial Institutions



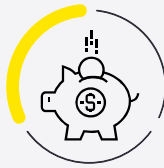
Net-Zero Plans and Strategy

- ▶ **Disclose** the institution's plans toward Net Zero.
- ▶ **Measure** financed and operational emissions and set emission targets.



External Stakeholders Engagement

- ▶ **Commit** to sustainable initiatives such as PCAF, SBTi, etc.
- ▶ **Engage** with regulatory bodies.



Sustainable Finance and Client Engagement

- ▶ **Launch** sustainable finance-related products & initiatives.
- ▶ **Engage** with clients to support their transition journey.



Climate Scenario Analysis

- ▶ **Identify** relevant climate scenarios.
- ▶ **Perform** climate scenario analysis on both transition and physical risks.

HOW CAN WE HELP?

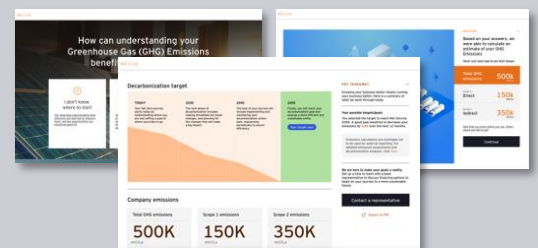
EY Climate Scenario Analysis Solution

EY climate risk stress testing tool helps clients to elevate stress testing capabilities. The solution covers loan portfolio assessment, risk assessment and long-term growth enablement to support FIs stay one step ahead of changing conditions by quantifying financial losses coming from Canada's transition to a low carbon economy and remain compliant with local and global regulatory requirements.



EY Decarbonization Strategy

EY teams have developed a digital decarbonization engagement solution that enables financial institutions to collect critical data needed to assess their clients' emission profiles and supports them in setting up effective and reliable transition plans.



Section 2.B: OSFI B-15 Disclosure on Strategy

Strategy Enabled by Technology

To effectively measure climate risks and opportunities within an organization, trustworthy climate performance baselines and benchmarks are critical. The complex modelling that is required to translate an organization's operations into qualitative physical and transition risks requires defensible assumptions using data that can be relied upon by management to make strategic decisions. Technology is necessary to analyze previous datasets as well as the confidence to forecast future scenarios.



Climate Performance Baselines

Before forecasting potential future climate scenarios and measuring the business impact that climate change will have, understanding an organization's operational and climate baseline is key. Technology can unlock the generation of baselines from complex internal and external primary data sources, including easily recalculating your baseline when material changes take place.

Carbonhound's platform is designed to set organizational and stakeholder baselines to:

- ▶ Confidently understand your climate performance baseline;
- ▶ Identify climate-related risks and opportunities using reliable data;
- ▶ Generate scenario analysis and transition planning with confidence;
- ▶ Maintain climate performance baseline re-calculations as data quality and climate science evolves.



Target Confidence & Monitoring

Setting meaningful organizational targets with confidence to regulatory bodies is the first step in OSFI's goal to lead organizations towards monitoring and tracking progress against their targets. Technology can be a useful tool to increase capacity of strategic and risk teams to monitor and manage their climate-related risk exposure.

Carbonhound's platform is designed to track and monitor corporate-wide and initiative-specific targets to:

- ▶ Monitor corporate-level targets and reported goals;
- ▶ Set and track interim targets at a corporate-wide level;
- ▶ Manage initiative-specific targets automatically updated using monthly climate data refreshes.

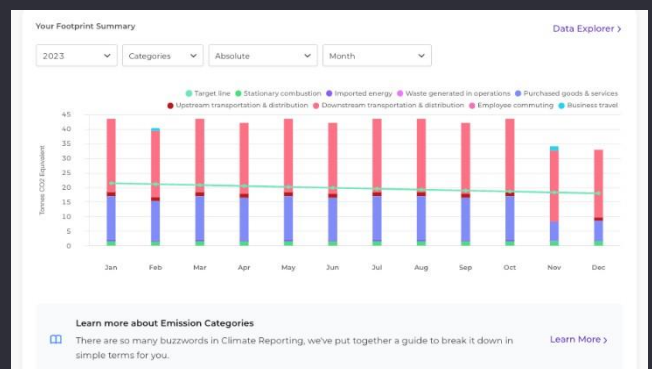


Baselining Emissions Data

Climate risks are more easily identified using a complete baseline of your holistic climate impact, including your portfolio impact. Scenario analyses and transition plans can then be developed using this robust baseline.

Peer & Industry Emissions Benchmarks

Comparing your operational and portfolio impact against industry and market baselines can build confidence and highlight opportunities to strategically align with your peers.



Section 2.C: OSFI B-15 Disclosure on Risk Management

Risk Management Disclosure Expectations

Disclosure Expectation	D-SIBs & IAIGs	SMSBs & Other Insurers
a) Describe the FRFI's process and policies for identifying, assessing, prioritizing and monitoring climate-related risks.	2024	2025
b) Describe the FRFI's processes for identifying, assessing, prioritizing and monitoring climate opportunities including whether and how the FRFI uses climate-related scenarios	2024	2025
c) Describe how processes for identifying, assessing, prioritizing and monitoring climate-related risks are integrated into the FRFI's overall risk management processes.	2024	2025

Capabilities Needed From Financial Institutions



Climate Risk Management Framework

- ▶ **Disclose** the institution's considerations for climate risks.
- ▶ **Highlight** any sectors of concern for climate risk exposure.



Identification of Climate Risks

- ▶ **Summarize** key risks to the institution.
- ▶ **Illustrate** how the institution is exposed to climate risks in different sectors.



Mitigation of Climate Risks

- ▶ **Provide** examples of actions taken to mitigate or manage climate risks.
- ▶ **Explain** how principal risks may be impacted by climate risks.



ESG Ratings

- ▶ **Develop** methodology to include climate risks in asset pricing.
- ▶ **Incorporate** credit risks in underwriting processes.

HOW CAN WE HELP?

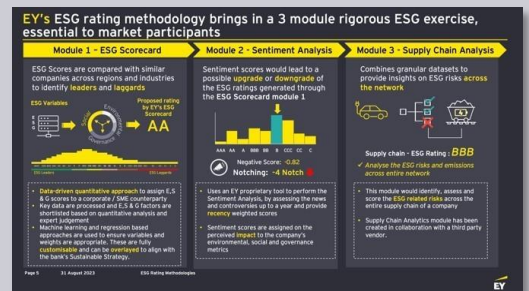
Climate Risk Management Framework

EY climate risk management framework can support the establishment of climate governance best practices for climate-related risk assessment and control framework.



ESG Rating Methodology

EY 3 module ESG exercise combines scorecards, sentiment analysis and supply chain analysis to identify industry leaders and risks across networks



Section 2.C: OSFI B-15 Disclosure on Risk Management

Risk Management Enabled by Technology

To mitigate climate risks and opportunities within an organization, relevant climate performance data presented in a useful format can empower risk managers to understand and manage climate risks without industry-specific knowledge. As the industry matures, climate-aware risk managers will rely on increasingly complex data. Technology can support conversations about climate risk metrics between risk managers and business leaders at all levels by surfacing relevant insights, creating more robust and meaningful management systems across the organization.



Timely Climate Risk Prioritization

Increasing access to timely and relevant climate data across the organization is critical to ensure teams are appropriately flagging and mitigating climate-related risks. Technology can eliminate manual work of reviewing and analyzing risks in addition to unlocking just-in-time reporting for swift identification and mitigation action.

Carbonhound's platform is designed to provide monthly updates to climate data from internal & external stakeholders to:

- ▶ Enable risk teams to identify risks in a timely manner;
- ▶ Identify which internal and external stakeholders need to be engaged to address emerging risks;
- ▶ Provide relevant aggregate and granular data to understand climate-related risks.



Relevant Data & Risk Hotspot Analysis

Managing climate risks and opportunities within your organization requires right-sized insights and data granularity for each stakeholder. Risk teams are unique in requiring easy-to-understand, high-confidence, and thorough datasets to effectively manage climate-related risks. Technology can convey data in a way that is meaningful to all stakeholders.

Carbonhound's platform is designed to easily communicate data and hotspots to:

- ▶ Flag high-priority risks in the context of the entire organization's operations;
- ▶ Identify areas to reduce climate-related exposure using data.

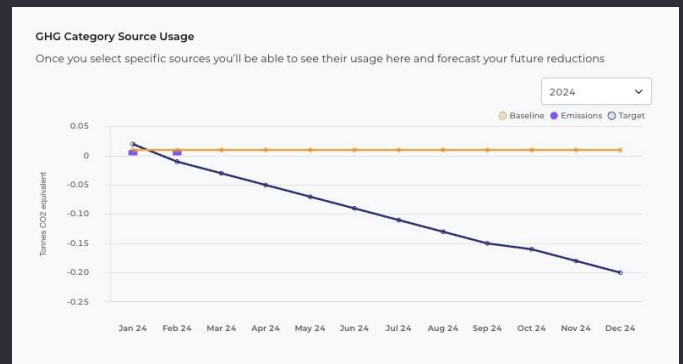


Emissions Target-Setting

Carbonhound can set and monitor corporate-level targets, including interim targets, as well as initiative-specific reduction goals to monitor progress across functions.

Client-Specific and Team-Specific Emissions Reporting

Technology unlocks more flexible reporting capabilities, referencing one source of truth for disclosure specific to customers, stakeholders, or internal teams.

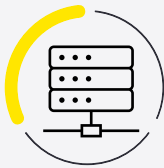


Section 2.D: OSFI B-15 Disclosure on Metrics & Targets

Metrics & Targets Disclosure Expectations

Disclosure Expectation	D-SIBs & IAIGs	SMSBs & Other Insurers
a) Disclose the metrics used by the FRFI to assess climate-related risks and opportunities in line with its strategy and risk management process.	2024	2025
b) i) Disclose the FRFI's Scope 1 and Scope 2 greenhouse gas (GHG) emissions (absolute basis) for the period and the reporting standard used by the FRFI (GHG Protocol Corporate Standard or other standards if provided further explanation).	2024	2025
ii) Disclose the FRFI's Scope 3 greenhouse gas (GHG) emissions for the period (absolute basis), the related risks and the reporting standard used by the FRFI (Corporate Value Chain (Scope 3) Accounting and Reporting Standard for Scope 3 GHG emissions, PCAF Standard for financed, facilitated and insurance Scope 3 GHG emissions, or other standards if provided further explanation).	2025	2026
c) Describe the targets used by the FRFI to manage climate-related risks and opportunities, the target setting approach, and the FRFI's performance against these targets.	2024	2025
d) Disclose cross-industry metrics including vulnerable assets to transition and physical risks, assets aligned with climate opportunities, capital deployment, internal carbon price and remuneration.	2025	2026
e) Disclose industry-based metrics applicable to the FRFI's business model/activities.	2025	2026

Capabilities Needed From Financial Institutions



ESG Data Architecture

- ▶ Implement a repository for cataloguing and tracking metrics
- ▶ Centralizing data ensures that it is accessible for other functions such as scenario analysis



Target Setting

- ▶ Define current state of the business's progress towards any climate commitments, disclose historical performance
- ▶ Provide sector specific targets where appropriate



Emissions Inventory

- ▶ Report current emissions for all scopes
- ▶ Describe what methodologies or calculations are used in measuring emissions



Key Metrics

- ▶ Report performance related qualitative and quantitative climate metrics
- ▶ Detail any change in reporting calculations or methodologies to ensure data comparability

HOW CAN WE HELP?

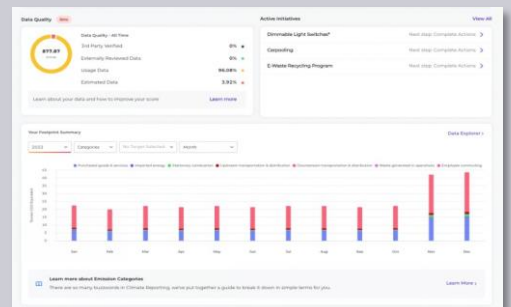
ESG Data Architecture

EY ESG data architecture can be leveraged to enhance Enterprise data architecture for ESG data integration. Provides a broad view from data sourcing to consumption layer.



Carbonhound Platform

Automated carbon emissions reporting unlocking stronger oversight and management of climate risks



Section 2.D: OSFI B-15 Disclosure on Metrics & Targets

Metrics & Targets Enabled by Technology

Climate metrics are calculated on an annual basis using primary operational data from across the organization. Data owners span across business units and regions, and include stakeholders from functions including, but not limited to facilities, procurement, HR, finance, accounting, IT, marketing and risk.

As regulations expand into improved Scope 3 and financed emissions, climate risk owners will rely on data from external stakeholders including suppliers and customers to assess their holistic climate-related risks. Technology is key to organize, aggregate, and monitor progress across metrics to empower teams to understand and manage risks.



Data Ownership & Capacity Building

Sharing relevant climate risk metrics from a central source of truth is challenging without the appropriate aggregation tools and dashboards in place. Due to the complexity of datasets, it is not feasible for teams to manually manage their own dashboards, especially while reporting standards evolve. Technology solutions centrally manage their infrastructure to maintain the most relevant up-to-date metrics and ensure confidence around data integrity allowing financial institutions to focus on their own data and building capacity to manage insights.

Carbonhound's platform is designed to help users comply to the latest standards so they can focus on mitigation efforts:

- ▶ Documenting and transparently calculating emissions across Scope 1, 2 and 3;
- ▶ Surfacing relevant view of data depending on the user's role and needs;
- ▶ Training and enablement for customers to navigate their climate data.



Simplified Financed Emissions

Regulatory bodies are increasingly looking at financed emissions as a metric to evaluate climate-related hotspots and potential negative business impacts. OSFI's regulations are informed by PCAF, which rely on a combination of modelling, and data collected directly from stakeholders. PCAF has assumed that access to technology will unlock higher-quality reporting capabilities. Carbonhound's technology can manage Scope 1 reporting across financed emissions asset classes, leaving room for advisory efforts and technology to help operationalize data collection and reporting.

Carbonhound's platform is designed to establish estimates, and improve an organization's PCAF data score over time to:

- ▶ Remove start-up barriers and deliver estimated hotspots;
- ▶ Provide insights to focus efforts on high-carbon industries, markets, and product lines;
- ▶ Automate data request processes;
- ▶ Surface emissions data and metadata to support risk managers engagement efforts.

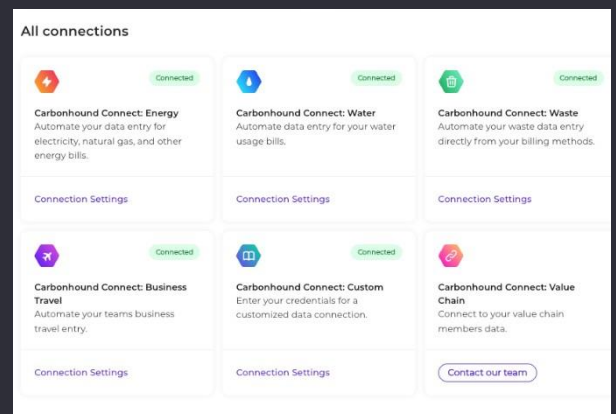


Automated Emissions Data Ingestion

Using non-API integrations, Carbonhound has a coverage guarantee on all emission sources across your own operations. Where data gaps exist, estimation models are able to fill in the gaps.

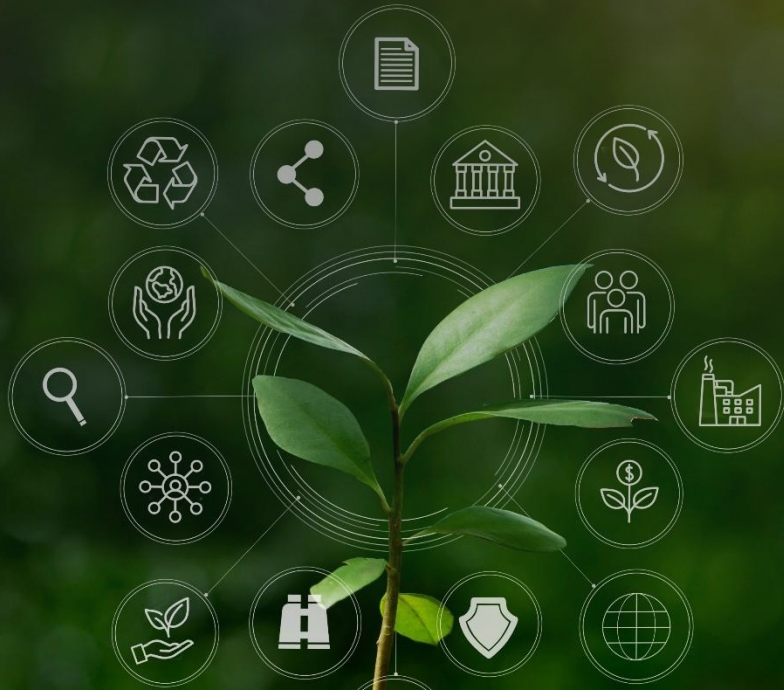
Supply Chain Emissions & Financed Emissions Reporting

Technology unlocks easy information sharing between parties, including applying attribution factors in alignment with ISO and PCAF standards.



03

SUCCESS STORY



Section 3: Success Story

ESG TARGET OPERATING MODEL

- ▶ EY teams supported a Canadian FI to develop a Climate Risk TOM which outlines the areas of focus, current & target maturities, key priorities, and roles & responsibilities. This process included a maturity assessment, a three-year capability enhancement roadmap in line with B-15, and facilitated role consensus and operational deliverables identification, alongside data and IT requirements. A governance structure was also established for oversight and progress assurance. This TOM offers a strategic approach to climate risk management, advancing the organization's ESG objectives and propelling their climate risk mitigation efforts.

ESG FINANCED EMISSION MEASUREMENT

- ▶ A credit union based in the West Coast of Canada uses Carbonhound to calculate their organization's financed emissions and we're thrilled to be collaborating with them to better understand the climate impact of their investments.
- ▶ After the Carbonhound team mapped the organization's loan book to understand which asset classes apply and the type of data available, we worked collaboratively to skill up their knowledge of financed emissions so they'd feel confident collecting the necessary data to report on. Using the software, they've been able to measure and report both their operational footprint and their financed emissions in less than four months, giving them a broad view of their emissions which will allow them to make meaningful data-driven decisions.

CLIMATE QUALITATIVE SCENARIO ANALYSIS

- ▶ EY teams have developed and applied a framework for undertaking climate scenarios analysis to help a Canadian Bank understand the potential impact of climate change on its portfolio and business activities. This strategic initiative has equipped the bank with insights into the potential implications of climate change on its portfolio and business operations. The framework delineated critical risks and opportunities, segmented by industry sectors, and evaluated the qualitative impact across various climate scenarios.

How we see it

- ▶ OSFI's B-15 guideline provides a base for FRFIs to identify key climate risk vulnerabilities in their portfolios by capturing systemic and certain idiosyncratic risk components. It also informs their data acquisition requirements for the return templates
- ▶ The guideline requirements will compel FRFIs to seamlessly integrate climate risk considerations into their risk management process and adhere to the TCFD reporting framework
- ▶ The disclosure expectations aim to **BUILD** confidence in management, **ASSIST** in maintaining adequate access to capital and liquidity channels, and **IMPROVE** the public's confidence in the resilience of the Canadian financial system

HOW CAN WE HELP?

EY ESG Benchmarking Assessment

Perform a benchmarking exercise to understand the level of maturity of peer financial institutions across key ESG areas, including risk identification and heatmapping, scenario analysis, credit assessment, risk appetite/restrictions, financed emissions baselining, target setting, organizational capabilities etc.



EY ESG Regulatory Maturity Assessment Framework

EY teams have developed a gap assessment template with supervisory expectations from BIS, OSFI B-15, ISSB, etc. organized by theme and requirements using a maturity model informed by market leading practices.



What's next?

- ▶ As global awareness of the potentially severe and far-reaching financial impacts of climate change increases, we expect further rapid developments. Here's how you can stay ahead of the curve:

Assess

- ▶ Identify climate-related risk in traditional risk management dimensions (i.e. credit risk, market risk etc.) to understand the impact to business
- ▶ Review existing risk management framework to assess the incorporation of climate-related and broader environmental risks
- ▶ Set climate ambition and develop a sustainable finance / climate risk roadmap
- ▶ Identify technology and data requirements needed to meet targets

Implement

- ▶ Design climate risk governance framework to facilitate effective risk management and suggest setting up of new committees / departments including roles and responsibilities when necessary
- ▶ Incorporate climate risk into ERM frameworks and policies
- ▶ Consider multiple climate models and scenarios that can capture both physical and transition risks
- ▶ Construct metrics and set targets for climate risk monitoring as well as board reporting

Key benefits

- ▶ Explore potential climate risk exposures based on the balance sheet distribution by leveraging BoC and OSFI scenarios
- ▶ Enhance capabilities, processes, and governance to integrate climate risk into the decision-making process

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- [3] OSFI, January 2024, Guideline B-15 readiness self-assessment questionnaire, [Consultation summaries](#)
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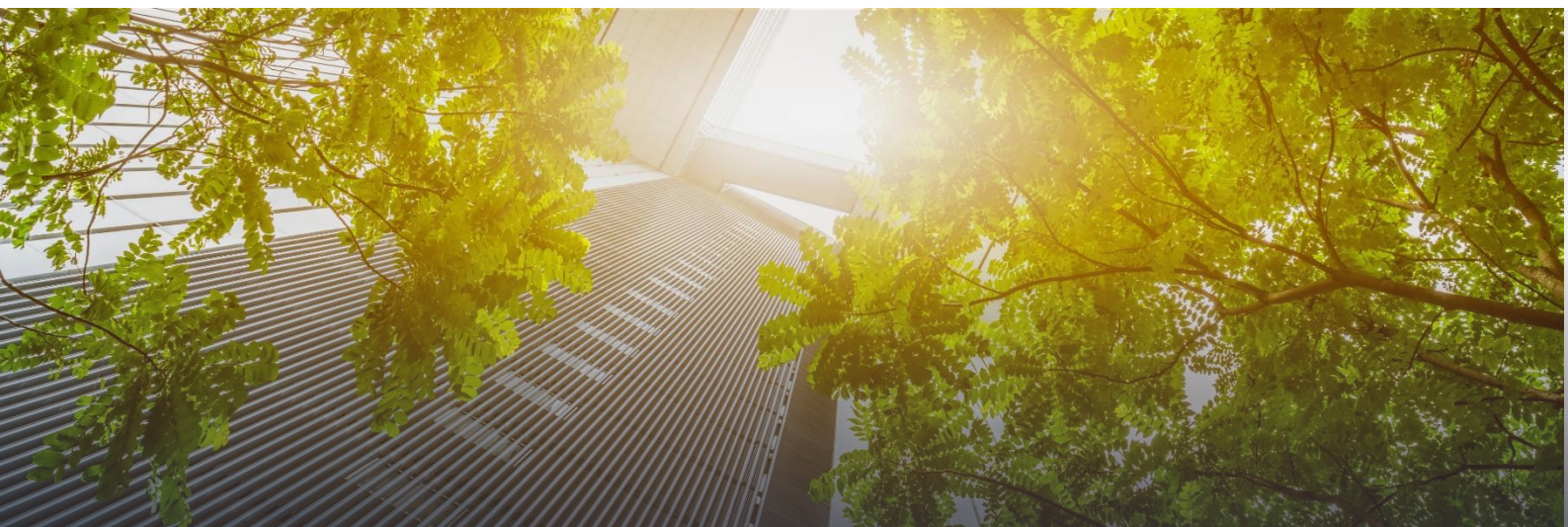
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