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Carbon Management: Critical Issues for Strategic Finance

CFERF Executive Research Report

September 2010

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Executive Summary

The statutory and regulatory environment taking shape in Canada and the US has the potential to pose a significant impact on the operations of Canadian organizations. Examples of these actions include: 'Cap and Trade' mechanisms included in the US American Clean Energy Act (Waxman-Markey) and the Western Climate Initiative (members include British Columbia, Manitoba, Ontario and Quebec); the related maturation of carbon markets across North America; and looming sustainability reporting requirements of the Ontario Securities Commission.

As the management of carbon use further develops within the broader operational reporting mainstream, CFOs, given their organizational perspectives, will have the opportunity to play leading roles, beyond compliance reporting, in the enterprise wide management of carbon use information for strategic advantage to reduce costs, manage risks and enhance company reputation.

The purpose of this study is to present the views of senior finance executives on the most significant environment-related issues facing their organizations today and in the near future. It also describes how they are managing these issues, the perceived risks, the role of the various stakeholders in the carbon management agenda, and some practical issues related to measurement, compliance and reporting. Finally, it will look at the emerging role of the CFO as an integral player in the carbon management agenda in companies across the country.

Carbon Management: Critical Issues for Strategic Finance – CFERF Executive Research Report was prepared by the Canadian Financial Executives Research Foundation (CFERF) and was sponsored by Energy Advantage. The report encompasses the results of both a survey of senior finance executives from public and private companies and insights obtained through an executive research forum held in Toronto on January 22, 2010. One hundred surveys were completed – 35% were from senior finance executives in public companies, 44% were from private companies, 11% Crown corporations and four percent from government.

AWARENESS OF REGULATORY DRIVERS

Close to half of all executives responding to this survey had some level of familiarity with the North American legislation, proposals, plans or regulations relating to carbon management and disclosure. Heavy-carbon emitters were more likely to be aware of the Western Climate Initiative than low emitters.

CARBON RELATED RISKS

The anticipated impacts of current and or proposed carbon related legislation varied widely across companies, with heavy-carbon emitters bearing the brunt of the risks related to carbon management. For example, 78% of heavy emitters said the leading risks they faced were legal and compliance risks and more than half (53%) felt that brand and reputational risk would be high associated with carbon related performance. Similarly, 47% of heavy emitters indicated that they would experience risks associated with non-compliance including the impact on investor perceptions. Finally, proposed legislation was expected to influence shareholders demands for improved carbon reporting/management in 33% of high-emitting firms.

THE ROLE OF STAKEHOLDERS IN CARBON PLANNING ACTIVITIES

The carbon management and planning initiatives in industry are driven by the interest of various stakeholders, i.e. employees, shareholders and investors, customers, suppliers, NGOs and regulators. This level of interest clearly varies according to whether a company is a high or low-emitting firm. For example, more than half of high-emitting companies said that their shareholders were either very interested or interested in carbon management issues. This compares to 40% in low-emitting firms. However, the exact reverse is true with respect to employees. Fifty nine percent of low-emitting firms indicated that their employees were interested in their carbon management programs, compared to 40% in high-emitting firms. Very few high-emitting companies (three percent) thought that their suppliers were concerned with their carbon management issues, compared to 22% in low-emitting firms.

BOARD INVOLVEMENT IN EMISSIONS REPORTING AND MANAGEMENT

Finance executives were fairly evenly divided on whether emissions reporting and management had achieved some priority and/or visibility at the board table. More than half of heavy-carbon emitters (56%) reported that their board was aware of their emissions management and reporting, compared to 35% of low-carbon emitters. The extent to which boards made an impact on a company's carbon management strategy also varied according to level of emissions. Our survey shows that in 47% of high-emitting companies, no specific action with respect to carbon management and reporting were taken as a result of board involvement. This compares to 68% of low-carbon emitters. For those companies reporting that board involvement led to specific management initiatives, 25% of heavy-carbon emitters and 15% of low-carbon emitters said that this resulted in the development of a structured emissions management and reporting plan.

COMPLIANCE AND REPORTING

Executives were asked to indicate to which entities and organizations they reported their emissions performance, either voluntarily or mandated. The majority of low-carbon emitters (72%) and more than half of heavy-carbon emitters (56%) said they did not report their emissions publicly. For those that did, the most popular form of public reporting for heavy emitters was Corporate Sustainability Reports (34%) versus 13% of low-carbon emitters. Nineteen percent of heavy-carbon emitters indicated that they reported specifically to shareholders compared to 9% of low-carbon emitters.

Given the potential for diversity and complexity in measuring a company's carbon footprint, a set of common standards for carbon measurement is critical. Consistency in measurement is particularly important for institutional investors, who have shown through initiatives such as the Carbon Disclosure Project that they are keen on being able to compare results at least across companies within the same industry. When one considers the difficulty in achieving true comparability in financial reporting alone, it highlights the need for companies to be clear on the assumptions they have used in reporting their carbon footprints.

PREPARING FOR REGULATORY REPORTING

Forty-seven percent of heavy-emitting companies and 31% of low-carbon emitters are now strategically planning their carbon management programs for the purposes of public reporting. Roughly one in three heavy emitters and one in four low emitters will be making investments in green house gas reduction. Similarly one in four heavy emitters and roughly one in five low emitters will be integrating emissions-related reporting into corporate information management systems. Relatively fewer companies will be increasing their internal emissions management teams or hiring external consultants.

Meanwhile, several different departments held responsibility for carbon management and this depended primarily upon whether the company was a heavy or low emitter. Heavy-carbon emitters tended to have separate environmental departments with environmental specialists having primary responsibility for carbon related reporting and performance programs. Low-carbon emitters reported that it was the operations executives, particularly the finance chief, who had the ownership of carbon-related reporting and performance programs.

Survey respondents were also asked what role the CFO played in the development and management of carbon management programs. The largest group stated the CFO's office provided functional financial support (46% heavy-carbon emitters/25% low-carbon emitters). However, for larger companies, the CFO is taking on an increasingly strategic role, not simply by way of disclosure and reporting, but also as part of a broader mandate that extends beyond the traditional lines of the finance function.

INTRODUCTION

The strategic impact of carbon use on the overall business sustainability of organizations is well established, including financial, operational and competitive risks and challenges. Furthermore, several marketplace events are underway which will place the management of carbon use into the broader operational mainstream of business. While awareness of the above perspectives exists across the majority of the business community, the actual impact of these and other carbon related challenges on the CFO will be profound.

Key factors driving this development are the statutory and regulatory actions taking shape in Canada and the US, which have the potential to pose a significant impact on the operations of Canadian organizations. Examples of these actions include: 'Cap and Trade' mechanisms included in the US American Clean Energy Act (Waxman-Markey) and the Western Climate Initiative (members include British Columbia, Manitoba, Ontario and Quebec); the related maturation of carbon markets across North America; and looming sustainability reporting requirements of the Ontario Securities Commission.

As the management of carbon use further develops within the broader operational reporting mainstream, CFOs, given their organizational perspectives, will have the opportunity to play a leading role, beyond compliance reporting, in the enterprise wide management of carbon use information for strategic advantage to reduce costs, manage risks and enhance company reputation.

With the above in mind, the purpose of this research study is to examine the strategic issues facing Canadian organizations today emerging from the North American carbon use statutory and regulatory activities underway and to discuss solutions that CFOs, given their perspectives, may offer to their respective businesses as they prepare to respond to these issues.

RESEARCH METHODOLOGY AND SURVEY DEMOGRAPHICS

Carbon Management: Critical Issues for Strategic Finance – CFERF Executive Research Report was prepared by the Canadian Financial Executives Research Foundation (CFERF) and was sponsored by Energy Advantage. The report encompasses the results of both a survey of senior finance executives from public and private companies, and insights obtained through an executive research forum held in Toronto on January 22, 2010.

The purpose of the executive forum was to allow for a free-flowing dialogue between company experts, who were provided with specific questions in advance. A broad cross-section of Canadian industry was represented, including mining; consulting; retail; real estate; entertainment; manufacturing; telecommunications; energy; and transportation. In many places in the study, the results are grouped by those who are considered to be heavy-carbon emitters (mining, and oil and gas extraction, manufacturing, utilities, transportation and warehousing, waste management and remediation services), and those considered to be low-carbon emitters (all other industry groups).

The study (including both the survey and the executive forum) was designed to capture the insights and experience from senior Canadian financial executives from public and private companies, Crown corporations and other organizations of all sizes and from all sectors and industries. Results reflect responses from a total of 100 finance executives who completed the online survey. Of these, 35% were from publicly-accountable enterprises, while 44% were from privately-held corporations. The remainder represented Crown corporations (11%), government (4%) and other ownership structures, such as not-for-profits (6%).

Responses were weighted towards the views of CFOs, and in keeping with the general makeup of the Canadian economy, domestic companies; private companies; and companies of revenues of less than $500 million. The greatest number of respondents was from Ontario (46%), followed by Alberta (25%) and British Columbia (18%).

See appendix A for further demographic details.

GOVERNANCE

AWARENESS OF REGULATORY DRIVERS OF CHANGE FOR GHG REPORTING

Climate change has been dubbed by some as the most pressing issue facing the global community, the reverberations of which will most certainly affect businesses. Almost half of financial executives surveyed by CFERF had some level of familiarity with North American legislation, proposals, plans or regulations relating to carbon management and disclosure.

- In the United States, the Waxman-Markey Bill (American Clean Energy and Security Act) passed through the House of Representatives and was pending approval by the Senate in early 2010. The legislation, backed by U.S. President Barack Obama, calls for limits on emissions in the U.S. and details a cap and trade mechanism to deal with that. A ruling by the U.S. Environmental Protection Agency (EPA) allows carbon dioxide emissions to be treated as a pollutant. This provides a new tool for the EPA to regulate carbon dioxide emissions which previously did not exist.

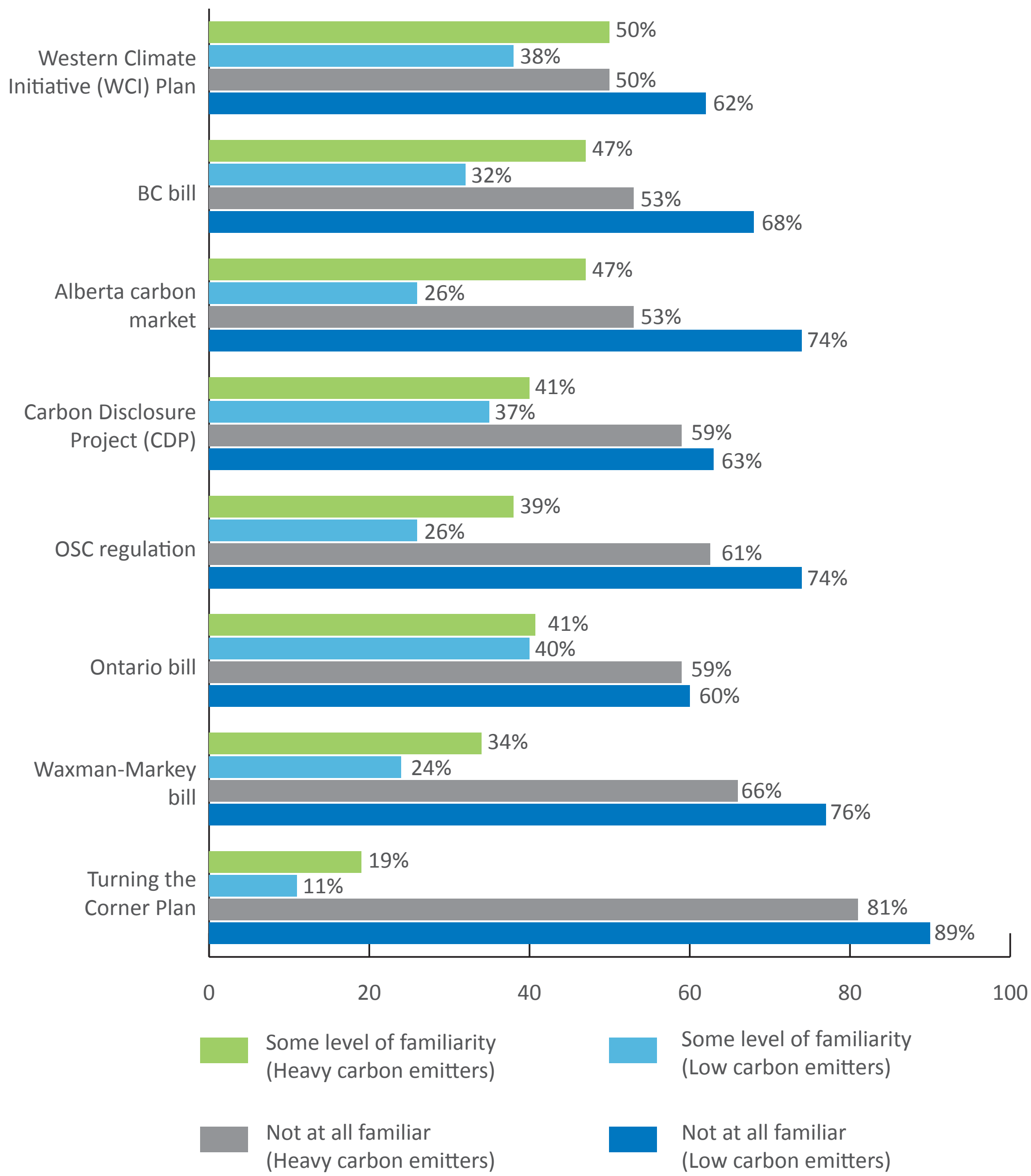
- The U.S. Securities and Exchange Commission has issued 29 pages of interpretive guidance to assist public companies preparing climate change related data with the interpretation of disclosure rules relating to climate-change risk. As a result, companies will more likely to examine their material climate-change risk, including the potential impact of any future cap-and-trade system.

- Canada's federal government introduced its *Turning the Corner Plan*, which established reduction targets and discussed the creation of a national carbon market. In the absence of firm federal guidance, several Canadian provinces have taken steps to regulate the reporting or the management of carbon.

    - British Columbia has introduced a carbon tax and the 2008 GHG Reduction Act.
    * Quebec has released a tax strictly on gasoline related to carbon emissions.
    - Ontario's Bill 181-55, also known as the Environmental Protection Amendment Act, lays the ground work for the carbon market (greenhouse gas emissions trading) by removing any roadblocks to it in the province.
    - The Ontario Securities Commission has introduced sustainability disclosure requirements that include the reporting of corporate emissions to the OSC.

Canadian financial executives in industries with low carbon output reported having the greatest awareness of the Ontario Bill (40% were somewhat familiar, familiar or very familiar with the plan). 50% of heavy-carbon emitters reported to be somewhat familiar, familiar or very familiar with the Western Climate Initiative (WCI).

PLEASE DESCRIBE YOUR LEVEL OF AWARENESS WITH THE FOLLOWING CARBON RELATED PROPOSED, PLANNED OR ENACTED LEGISLATION IN NORTH AMERICA



Executives at publicly-held companies were consistently more familiar with the various bills, regulations and proposals than were their counterparts at private companies. However, more than half (54%) were not at all familiar with the Ontario Securities Commission reporting regulations related to carbon emissions.

> With different approaches in multiple jurisdictions by national, state and local governments trying to take a lead on regulation in the absence of coordination amongst them, it's extremely confusing for a CFO. "As a company we've committed to following international guidelines for sustainability reporting and we collect and report information to meet that commitment; we also report our CO2 emissions to the Canadian government and they are posted on the government's website; so we are willing to report objective data. But it's a very confusing topic both for financial executives and investors and there is no leadership on this topic in Canada or the world that I can see.
>
> – Robert J. Dietrich, Executive Vice President, Finance and Chief Financial Officer, Timminco Ltd.

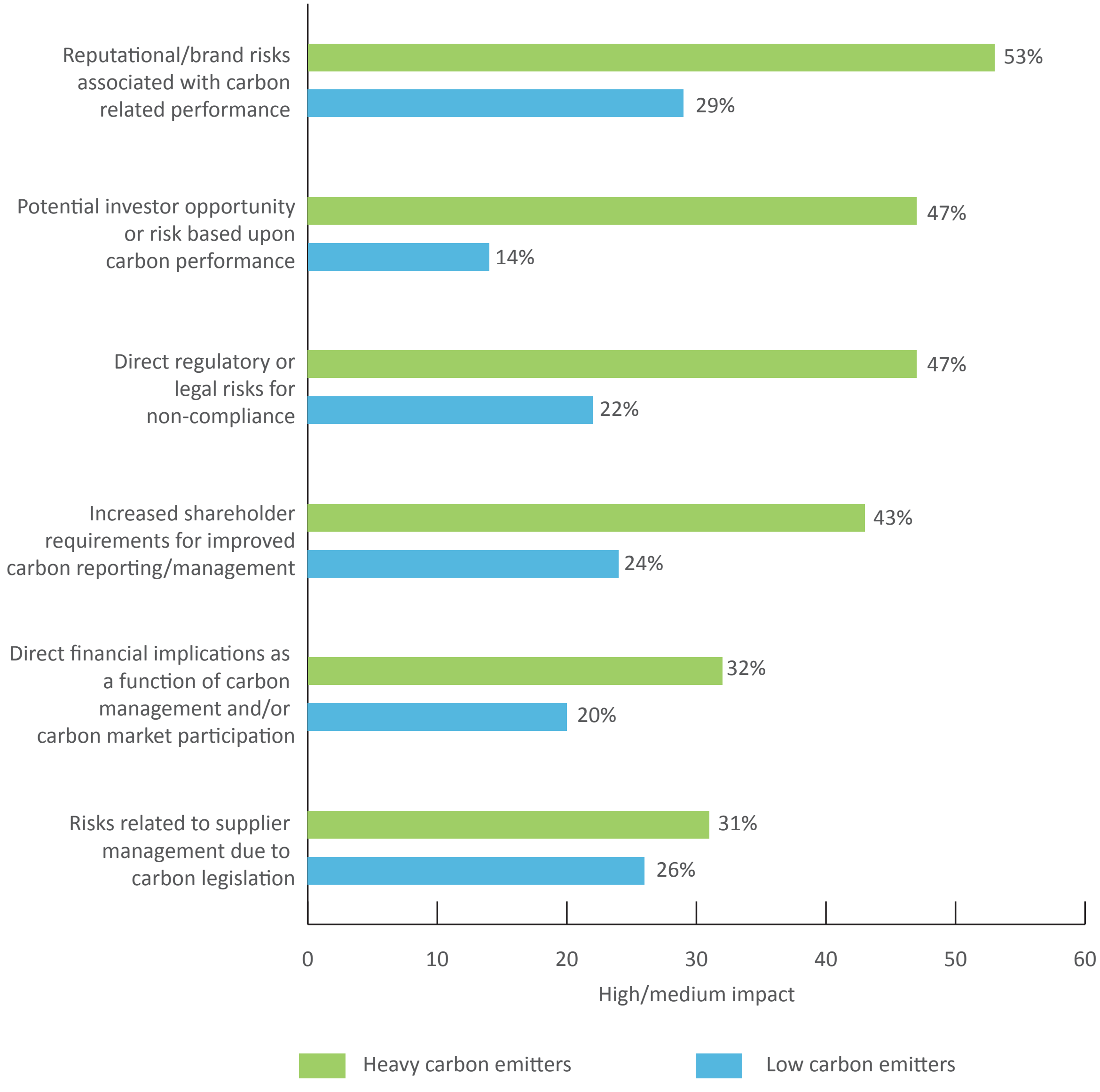
CARBON-RELATED RISKS

> Carbon management is clearly more of concern to high-emitting companies where the risks associated with non-compliance and overall carbon performance are significantly higher than for low emitters.

Financial executives were asked to rate the impacts of current and/or proposed carbon-related regulation on their firms, and results varied according to whether the company was a high or low emitter of carbon. For example, 47% of survey respondents that were heavy emitters indicated that they would experience risks associated with non-compliance in comparison to only 22% of low emitters. Similarly, 53% of heavy emitters felt that brand and reputational risk would be associated with carbon related performance compared to 29% of low emitters. Proposed legislation was also expected to influence shareholders demands for improved carbon reporting/management in 43% of high-emitting firms, versus 24% of low-carbon emitters. However, the most significant difference between heavy and low emitters related to the effects of carbon performance on investors' perceptions with 47% of heavy emitters indicating that it has a medium or high impact, compared to only 14% of low-carbon emitters.

While these results suggest that carbon management is predominantly an issue for heavy industry and high-carbon use firms like transportation, CFOs in low carbon emitting industries such as retail will still be required to understand their carbon footprint due to increased public scrutiny. For example, Sears Canada, although not a major direct emitter of carbon, began reporting to the Carbon Disclosure Project in 2008. According to Dr. James Gray-Donald, Sustainability Leader at Sears Canada Inc., "It's all really come about through internal and public interest. From our sales associates right through to our executives, we want to understand our carbon footprint and track our progress as we reduce it. The public recognizes Sears for energy efficient products and they want to know that our stores and company are energy efficient as well." Not being subject to regulation means when retailers such as Indigo Books and Music get proactive, they are fully in control of their own carbon reduction plan. Any efforts they make in the area of carbon management are voluntary and part of a larger CSR plan, says Michelle White, Director of Sustainability for Indigo Books & Music. "So right now if you were in energy production or pulp and paper or big scale manufacturing, there is some degree of regulation, but for us there's really nothing," White says. "Our carbon plan is more about being a good corporate citizen and doing our bit for the environment to reduce our operational impact and to be more operationally efficient from a financial perspective."

EXPECTED IMPACT OF CURRENT AND/OR PROPOSED CARBON RELATED LEGISLATION ON ORGANIZATIONS



RISKS TO BRAND REPUTATION

When managing brand and reputation risk, Holcim Ltd., a leading Swiss-based global concrete and aggregates company with a presence in 70 countries, decided to take a “best-in-class” approach to carbon management. As a major world player in its industry, Holcim aims to lead the industry in sustainable development, according to Kent Carson, VP of Finance for Holcim Canada. Holcim has committed to minimizing and mitigating its CO_2 emissions through a variety of approaches, Carson says, including improving CO_2 performance, product development and sustainable construction, improving thermal energy efficiency and process technology, optimizing fuel composition, including the use of waste as fuel. He says that the efforts are definitely paying off and Holcim achieved its voluntary CO_2 emissions reduction target ahead of schedule. Taking 1990 as reference year, Holcim’s original target was a 20% reduction in net CO_2 emissions per tonne of cement by the end of 2010. These emissions were already reduced by 21% by the end of 2009. Holcim has been a member of the Dow Jones Sustainability Index for seven consecutive years.

THE ROLE OF STAKEHOLDERS IN CARBON PLANNING ACTIVITIES

Finance executives in low-emitting industries reported that the stakeholders most interested in the carbon planning activities were their employees. For heavy emitters, it was investors and shareholders.

The carbon management and planning initiatives in industry are driven by the interests of various stakeholders, i.e. employees, shareholders and investors, customers, suppliers, NGOs and regulators. This level of interest clearly varies according to whether a company is a high or low-emitting firm (see Table 1). For example, more than half of high-emitting companies said that their shareholders were either very interested or interested in carbon management issues. This compares to 40% in low-emitting firms. However, the exact reverse is true with respect to employees. Fifty nine percent of low-emitting firms indicated that their employees were interested in their carbon management programs, compared to 40% in high-emitting firms. Very few high-emitting companies thought that their suppliers were concerned with their carbon management issues (3%), compared to 22% in low-emitting firms.

TABLE 1. STAKEHOLDER INTEREST IN CARBON MANAGEMENT ISSUES (VERY INTERESTED/INTERESTED)

	HIGH EMITTERS	LOW EMITTERS
Shareholders	59%	40%
Regulators	56%	27%
Investors	53%	25%
Employees	40%	59%
NGOs	35%	29%
Customers	34%	37%
Suppliers	3%	22%

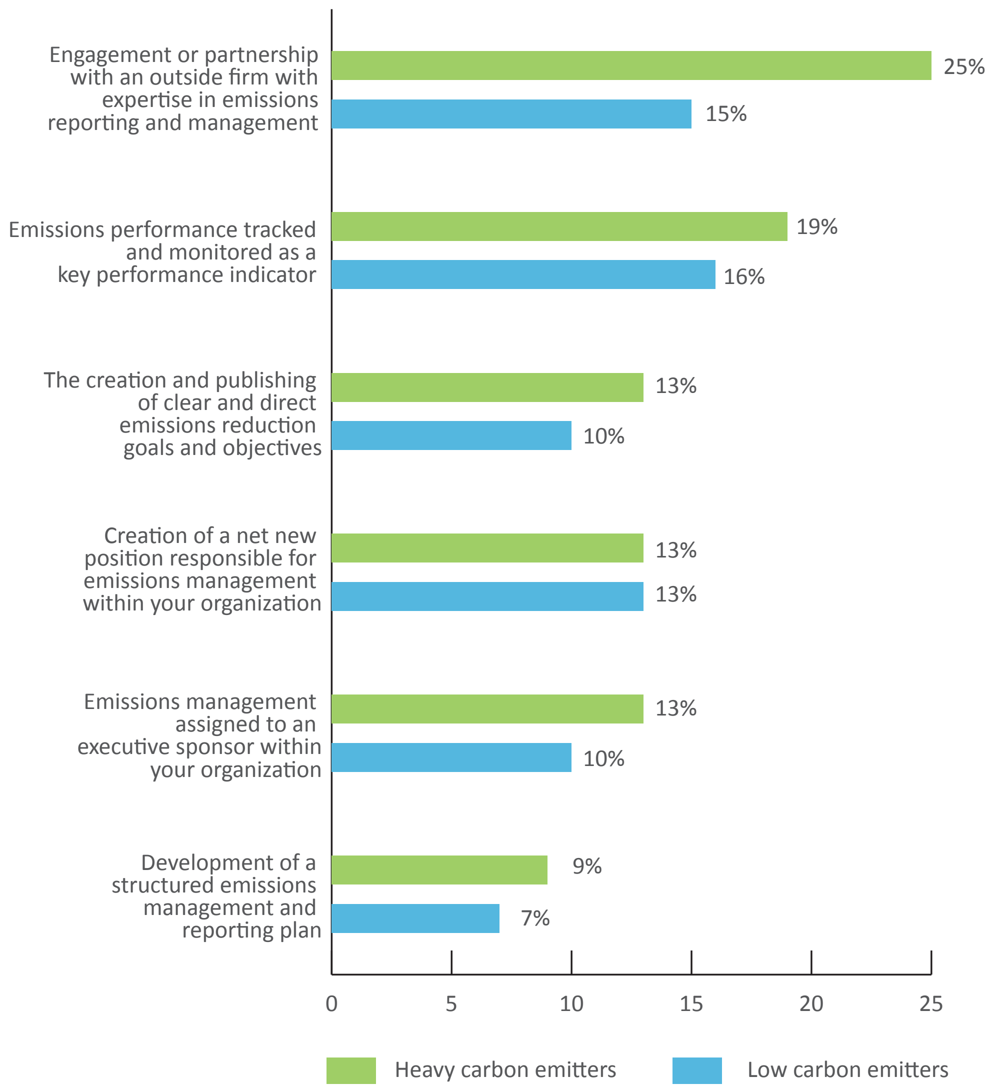
When assessing shareholder interest, according to Bill Ross, of Enbridge Gas Distribution, it's critical to remember that shareholders are primarily interested in the financial impact of carbon management initiatives. "Your shareholders are investing for a particular reason, and in our case, it's stability of earnings and growth," Ross says. Taking further action to reduce carbon that would have an impact on the bottom line is a financial risk that would have to be sold to shareholders if the financial benefits aren't immediately apparent. "The more difficulty you would have with shareholders explaining your position would be where you were doing something outside of your risk profile. And that is something that you probably would not be rewarded for, and as a company, you probably would not undertake ... So again, you'd have to do a good inventory of who your investors are. That would determine what you're going to do," he says.

For Cineplex Entertainment, taking stock of the corporation's GHG emissions was considered to be important for both customers and in attracting and retaining staff, primarily due to the age demographic of these two groups. Approximately ninety percent of Cineplex's employees are part-time and a significant percentage of customers are between the ages of 17 and 25. As Gord Nelson, the company's CFO explains, "Although Cineplex doesn't have a major carbon footprint, we decided to measure its carbon output because these two groups want to be associated with an environmentally responsible organization." Says Nelson, "It helped us attract our part-time workers, who are of the generation that are highly environmentally conscious."

BOARD INVOLVEMENT IN EMISSIONS REPORTING AND MANAGEMENT

Finance executives were fairly evenly divided on whether emissions reporting and management had achieved some priority and/or visibility at the board table. More than half (56%) of heavy-carbon emitters reported that their board was aware of their emissions management and reporting, compared to 35% of low-carbon emitters. The extent to which boards made an impact on a company's carbon management strategy also varied according to level of emissions. Our survey shows that in 47% of high-emitting companies, no specific action with respect to carbon management and reporting were taken as a result of board involvement. This compares to 68% of low-emitting companies. For those companies reporting that board involvement led to specific management initiatives, 25% of heavy-carbon emitters and 15% of low-carbon emitters said that board involvement led to the development of a structured emissions management and reporting plan. Another 19% of heavy-carbon emitters and 16% of low-carbon emitters said that board involvement caused emissions management to be assigned to an executive sponsor within their organization. Thirteen percent of all respondents said that board involvement allowed for the creation and publishing of clear and direct emissions reduction goals and objectives.

RESULT OF BOARD INVOLVEMENT IN EMISSIONS REPORTING AND MANAGEMENT



At Ontario Realty Corporation, the Board of Directors is closely involved, according to H.R. Goss, the CFO and Treasurer of Ontario Realty Corporation. “They’re engaged in reviewing and supporting sustainability efforts; such as our approach to CSR reporting. We’re regularly reporting Key performance indicators (KPIs),” says Goss, noting that soon, under the *Green Energy Act*, ORC will have a formal directive to achieve energy reduction and associated greenhouse gas/ carbon reduction targets. “Once that target is in place, progress in achieving the targets will be measured and monitored and regularly reported to the board and to the public.”

At Canadian Tire, carbon management and all other aspects of business sustainability fall under the auspices of the board and the audit committee, according to Brian Fiedler, Vice President of Finance and Administration. The company deals with business sustainability in a strategic manner and has dedicated resources to oversee and coordinate efforts in this area. This includes specific initiatives on packaging and energy consumption designed to reduce the company’s overall footprint.

At METRO Waste Paper Recovery Inc., the issue is becoming “high profile”, says CFO Bob Rollwagen. “Over the last five years, it’s gone from not even being mentioned to I’d say being maybe 20% of the conversation, around the board table,” he says, adding most of that stems from board members seeking to become better informed. Meanwhile, TELUS reports to its audit committee through an overall CSR update on a quarterly basis, according to Kasey Reese. The committee also undertakes an annual review of the company’s CSR, he says.

COMPLIANCE AND REPORTING

MEASUREMENT: PRACTICAL ISSUES

As executives prepare to manage carbon, they must first determine the best way to approach carbon measurement and management. Indeed, before one can reduce carbon output, one must measure it in order to track progress. Organizations must decide which standard to use to measure their emissions.

Given the potential for diversity and complexity in measuring a company's carbon footprint, a set of common standards for carbon measurement is critical. Consistency in measurement is particularly important for institutional investors, who have shown through initiatives such as the Carbon Disclosure Project that they are keen on being able to compare results at least across companies within the same industry. When one considers the difficulty in achieving true comparability in financial reporting alone, it highlights the need for companies to be clear on the assumptions they have used in reporting their carbon footprints. According to Bob Rollwagen, CFO of METRO Waste Paper Recovery Inc. "We've got to get stronger measurement standards in place…where we can start to cut out the duplications," Rollwagen says. "We measure volumes of many recovered commodities, we do two million tons of recovered material across Canada and the northern U.S. annually and we handle some of it several times in the process so it is critical that we do not double up in reporting. Everybody wants to take credit for a recovered tonne and each customer has their own Marketing reports on their 'Green Activity'." Says Rollwagen, "With no audited standards, even the most consistent, accurate measurement indicating a reduction in carbon output, does not automatically mean that the ideal environmental result is being produced."

When gathering data for measurement, specific sectors will find challenges in data gathering specific to their industry. For instance, the retail industry is dealing with complex ownership structures, notes Michelle White, director of sustainability for Indigo Books & Music. Indigo leases its stores, and where stores are located in malls, the landlord is responsible for the utility bills, which Indigo may not see for months. Says White: "It makes it really difficult within a retail environment to exact a lot of operational control." Similarly, Indigo has coffee shops located in its stores, creating another measurement issue.

When it comes to measurement, for Brian Fiedler, Vice President, Finance and Administration of Canadian Tire Corp., the company has designed specific KPIs to measure its performance and track continuous improvement against the goals established. "It is important when attempting to measure the total impact throughout the supply chain that the incremental aspects at each stage of the process are captured so as to avoid any potential double counting throughout the manufacturing, transportation and distribution cycle. That way interested parties can obtain a fair picture of the total carbon footprint embedded in a given product," Fiedler says.

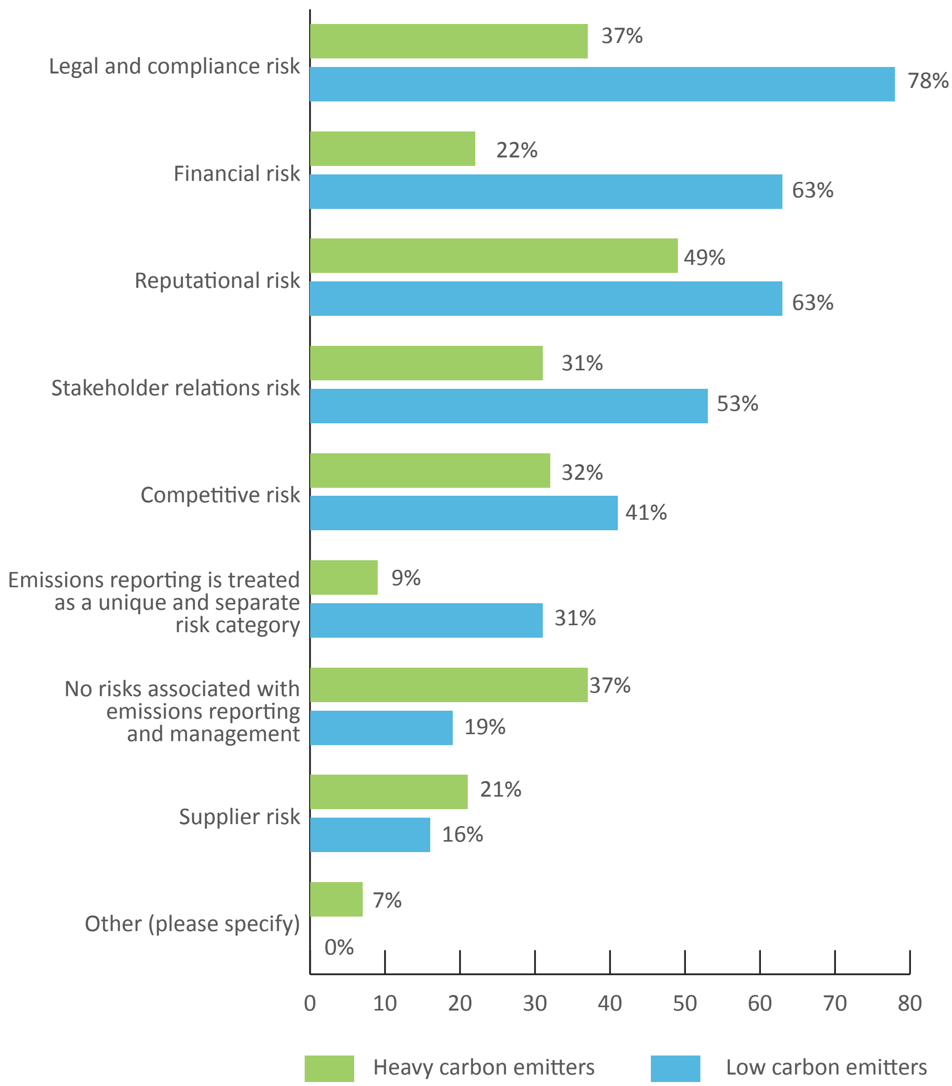
The problems with inconsistency within a sector are evident, for instance, when comparing how international airport authorities measure carbon, according to John Weerdenburg, Vice President and CFO of the Ottawa International Airport Authority. "We're part of an organization called Airports Council International. You've got the Europeans in ACI, who seem to be well advanced in this, and they've got manuals that could fill a room, in terms of how to measure the carbon footprint and they're all different. And so there really is no consistency," Weerdenburg says. "In comparison, the Americans have a 64-page manual on how to measure an airport's carbon footprint. One aspect all have in common, though, is the concern that they are not put at a disadvantage because in some other country they're doing it in a different way, he says.

RISKS RELATED TO EMISSIONS REPORTING AND MANAGEMENT

Survey results show that heavy-carbon emitters recognize many more operational risks associated with emissions reporting and management than low-carbon emitters.

Finance executives surveyed were asked to categorize the risks related to emissions reporting and management. For low-carbon emitters, the leading risk taken into account in relation to GHG emissions reporting and management was reputational risk, with 49% citing it as a risk their organization had taken into account in their business strategy and operational planning. By comparison, 78% of heavy emitters said the leading risks they faced were legal and compliance risks

OPERATIONAL RISKS WITHIN BUSINESS STRATEGY AND OPERATIONAL PLANNING ACTIVITIES RELATED TO EMISSIONS REPORTING AND MANAGEMENT



> Airports have a lot of land that can't otherwise be used and so, in Ottawa, we're about to have a solar farm built between our runways on a concession basis and so it will count for us in terms of a carbon credit. But that's not really the issue. … Because I think there's a real cost – and there's no way of measuring that cost … to your reputation – if you have the reputation of being a polluter. But if you have the reputation of somebody who is trying to do something about that or you're seen as being proactive, then I think it's good for your particular industry.
>
> – John Weerdenburg, VP and CFO, Ottawa International Airport Authority

FINANCIAL RISK

In Canada, as far as determining true financial risk associated with carbon reductions, it is necessary to understand what the new regulations would require in terms of pace and intensity of the reductions as well as the baseline, says Kent Carson of Holcim Inc. "Any and all improvements, whether voluntary or legislative, have financial implications that require process changes and a lot of investment. In any capital planning cycle, these investments need to be factored in, years in advance. As you may appreciate, a two percentage point reduction requires a very different investment profile than a four percentage reduction. In addition, the timeline to meet new reduction targets, and whether the horizon to do so is two years, five years or 10 years, also has financial consequences. Choosing what baseline year to start from impacts the outlook, as the baseline year could have been a strong or weak year for emissions results. Without a clear framework in place, it is difficult, if not impossible, to plan for the required capital expenditures. Further complicating matters, we also need to be forward thinking and consider the strategies or requirements our international trading partners are implementing related to carbon reductions. From a purely financial point of view, there is definitely a lot of uncertainty to try to understand before risk and investment planning can be properly conducted."

In the end it all comes down to the numbers. Bob Rollwagen, of METRO Waste Paper Recovery reminded that "The bottom line is all about measurement and that's what we do for a living, whether we're the CFO, CEO, CIO or the COO and I think the more we drive numbers to disclose our recovery efforts, whatever it is, then people can start looking at it, evaluating it and building a picture. The market will eventually move to the true numbers and over time… that will drive where we need to be going with the carbon issue."

FINANCIAL BENEFITS

Ultimately, the true financial impact will take years to determine, according to Bill Ross, of Enbridge Gas Distribution. “It’s going to be hard to say within 50 years whether burning carbon will be socially acceptable. Maybe it will not. As businesses, we sort of have to think about what it does longer term, so there are targets for five years, ten years and 50 years out,” Ross says.

When the longer term financial impact is considered over the longer term, the outlook looks more positive as opportunities for new revenue streams present themselves in a “green” economy. Climate change opportunities appear, moving some companies beyond merely looking at the costs of reducing a carbon footprint, according to consultant Julie Desjardins. “There may be a competitive opportunity to win market share because customers prefer to go to your company,” Desjardins says.

Companies may also find they can provide a valuable service in helping their customers reduce their carbon footprint. For instance, TELUS, as a telecom company, sees opportunities to help customers reduce energy use by supporting, for instance, remote work, distance learning, GPS to improve transportation efficiency, says Kasey Reese, TELUS Corporation’s VP Risk Management & Chief Internal Auditor. Similarly, for retailers, says Michelle White, Director of Sustainability at Indigo Books & Music, “there are a lot of positive financial implications through carbon management, because at the end of the day you are reducing your energy consumption. Anything you do to reduce that consumption goes to the bottom line, so there’s a lot of opportunity for cost savings.”

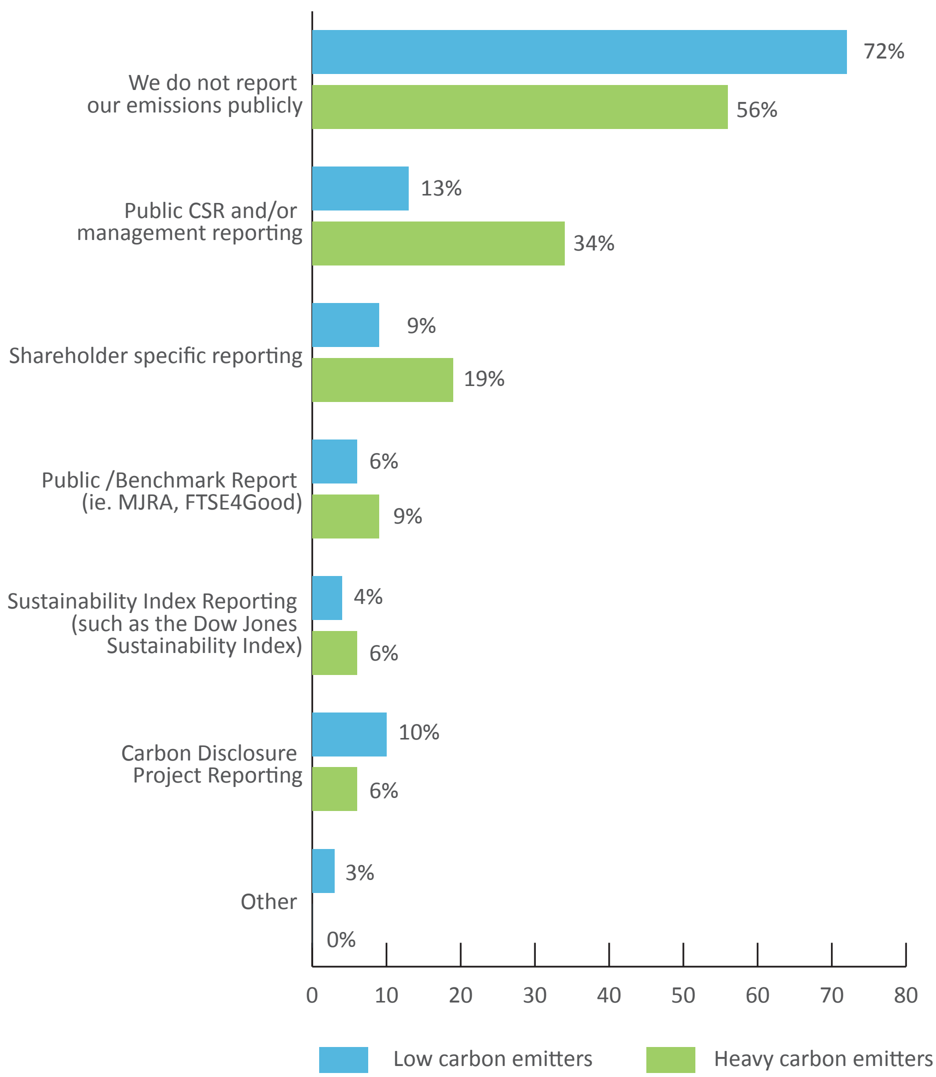
REPORTING ENTITIES

Emissions reporting is primarily a public company exercise.

Executives were asked to indicate to which entities and organizations they reported their emissions performance, either voluntarily or mandated. The majority of low-carbon emitters (72%) and more than half of heavy-carbon emitters (56%) said they did not report their emissions publicly.

The most popular form of public reporting for heavy emitters was Corporate Sustainability Reports (34%) versus 13% of low-carbon emitters said that they engaged in public CSR and/or management reporting; 19% of high-carbon emitters indicated that they reported specifically to shareholders compared to 9% of low-carbon emitters. Ten percent of low-carbon emitters were part of Carbon Disclosure Project Reporting, compared to 6% of heavy-carbon emitters.

WHERE ORGANIZATIONS REPORT PUBLICLY ON EMISSIONS PERFORMANCE



It's important to distinguish between voluntary reporting, such as the Carbon Disclosure Project, (CDP) and mandatory reporting such as disclosures required by securities regulators. According to Alan Willis, President of Alan Willis & Associates, "Because reporting to the CDP is voluntary, the primary consequence of not reporting to it is embarrassment, rather than say, fines or penalties from regulators. When reporting to regulators, particularly in multiple jurisdictions, it's particularly important to make sure that data is consistent." Says Julie Desjardins, President of Desjardins & Associates, "As a director, I would be asking whether there are appropriate processes in place to make sure that there's consistency amongst these securities filings and the voluntary reporting."

Corporate Sustainability Reporting at TELUS

At TELUS we define CSR in terms of our accountability and performance along the triple bottom line. This includes our performance along social and environmental dimensions of the business as well as the more traditional economic dimension. This helps us support the goal of long term sustainable development, not just at TELUS, but broadly within the communities within which we live work and serve. In regards to GHG emissions, TELUS and the telecommunications industry sector overall are not huge relative to certain other sectors. With that said, we recognize the impact which GHGs have on the environment and accordingly we've been voluntarily disclosing our emissions through the Carbon Disclosure Project, Dow Jones Sustainability Index (DJSI), amongst other disclosure channels, and for a number of years through our annual CSR reporting. For several years, we have had our GHG emission disclosures externally verified using one of the Big Four accounting firms which we have found very helpful. Understanding our carbon footprint is a key element of our approach to climate change, which of course is a significant component of the environmental pillar of our triple bottom line reporting. So it's very prominent in our definition for the full scope of CSR. We continue to monitor the various contemplated and evolving provincial, federal and international regulations and government actions although this is somewhat challenging because it appears that these aren't really aligned yet.

– Kasey Reese, Vice-President, Risk Management and Chief Internal Auditor, TELUS Corp.

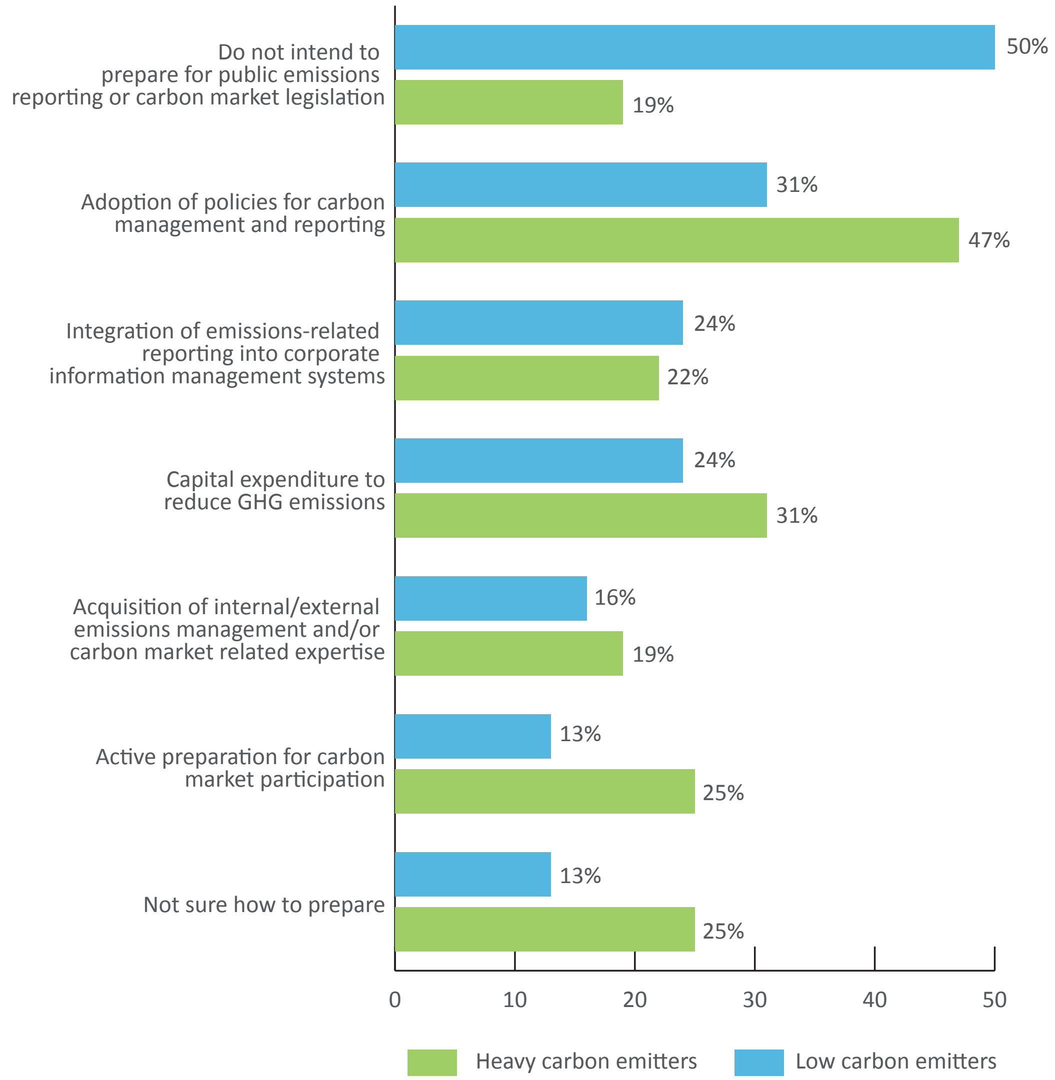
PREPARING FOR REGULATORY REPORTING

Almost half of heavy-carbon emitters are adopting policies for carbon management and reporting and one in four are actively preparing to participate in carbon markets

Forty-seven percent of heavy emitting companies and 31% of low-carbon emitters are now strategically planning their carbon management programs for the purposes of public reporting. Roughly one in three heavy emitters and one in four low emitters will be making investments in green house gas reduction.

Similarly, one in four heavy emitters and roughly one in five low emitters will be integrating emissions related reporting into corporate information management systems. However, relatively fewer companies will be increasing their internal emissions management teams or hiring external consultants.

HOW HAS (OR WILL) YOUR ORGANIZATION PREPARE FOR PUBLIC CARBON/EMISSIONS REGULATORY REPORTING?



Cineplex Entertainment found that reducing carbon output wasn't always a matter of spending more money. "Once we assembled the footprint," says Cineplex CFO Gord Nelson, "the goal was to prioritize our various initiatives in order to give us the biggest bang for our carbon reduction buck.

Often the initiatives didn't require financial capital, but just changing the processes or procedures in our 130 locations."

When preparing to report carbon emissions, it's important to remember to prepare not just for carbon management and disclosure but for a changing climate itself, notes Kasey Reese, Vice President of Risk Management and Chief Internal Auditor at TELUS. "Organizations need to be aware of, and prepare for, the impacts of climate change that we're already experiencing and which may become even more pronounced over time, such as increased flash flooding, severe weather events, and forest fires, all of which need to be cared for from a business continuity planning standpoint and by having adequate insurance coverage. TELUS is examining the opportunities it has to innovate as a result of climate change mitigation and adaptation. These opportunities, working with our customers and community partners, will be incorporated in our reporting and disclosure on climate change over time. "

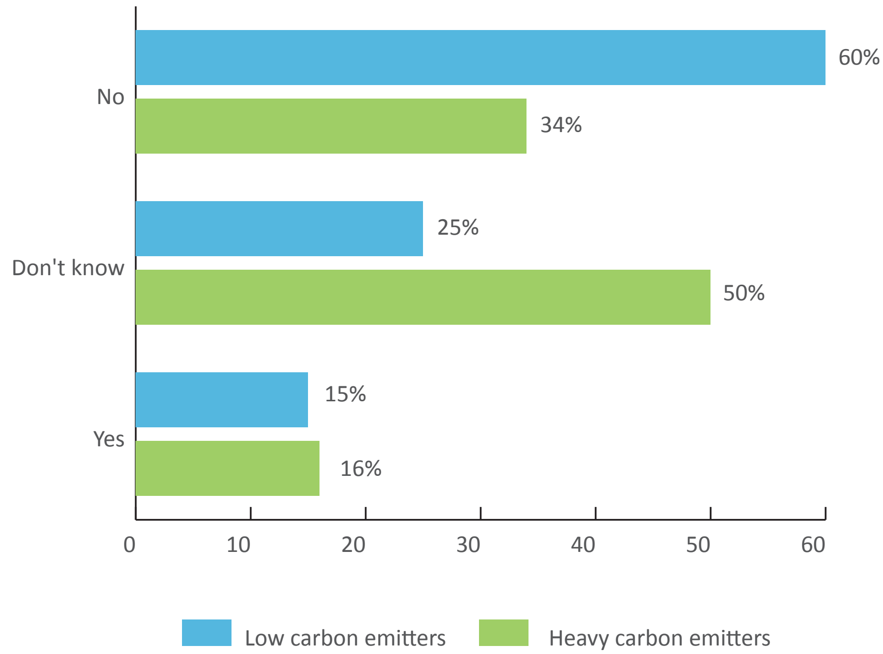
TARGET SETTING

One of the biggest challenges surrounding emissions reductions is determining what will be required by regulation. Our study shows that half of all heavy emitters didn't yet know if they would be implementing performance targets beyond the current legislated or industry requirements, compared to 16% that expected that they would. This compares with roughly one third who expected to be imposing standards beyond current targets.

For individual companies that are not subject to regulation, target setting is voluntary and therefore flexible. Nevertheless, some companies that fall into this category are still setting aggressive targets. For example, Indigo Books & Music is investigating the possibility of a 20% reduction in GHG emissions, using 2007 levels as a baseline. Says Michelle White, the company's director of sustainability, "We're trying to be a very metrics focused company. Even within our environmental paper policy, there's an internal 25% paper reduction use from 2007 by 2012."

One thing that's important to keep in mind when setting targets is to remember how long it will take to achieve them, according to H.R. Goss, of Ontario Realty Corporation: "The major initiative we have to reduce greenhouse gases involves restructuring the owned and leased real estate portfolio, including retrofitting buildings, to reduce the footprint per employee. That's at least a decade long plan. The goal is not only to run buildings more efficiently but also to use space more efficiently, but it takes a long time." Goss says. "That's because leases are generally at least five years in duration so implementing a leasing strategy to consolidate space takes years; for owned space, there is a need to relocate occupants so retrofit plans can proceed," he explains.

DOES YOUR ORGANIZATION INTEND TO IMPOSE PERFORMANCE TARGETS FOR GHGS EXCEEDING THOSE OF CURRENT LEGISLATED OR INDUSTRY REQUIREMENTS?



FACTOR IN PERFORMANCE REVIEW

Among those surveyed, carbon/energy use management is not yet being factored into the performance reviews of senior management, with the exception of Crown Corporations. However, some companies that do consider carbon reduction as a key management performance are using on-line reporting tools to allow employees across the country to gauge their performance on a frequent basis. As CFO Gord Nelson explains, Cineplex Entertainment has energy consumption incentive programs at the theatre management level. Says Nelson: “At the end of the day we know if someone’s leaving lights on and leaving systems running all night, that is easy stuff for us to try to fix. Our focus has been measuring this through monthly reporting tools that include online portals so managers can link in and see consumption on a monthly basis. We can then encourage, reward and compensate based on monthly consumption reduction. And that tool also is what we use to monitor any new projects and initiatives including the capital projects that the energy committee puts forward. So we have been rewarding and monitoring for a number of years.”

MANAGEMENT PRACTICES

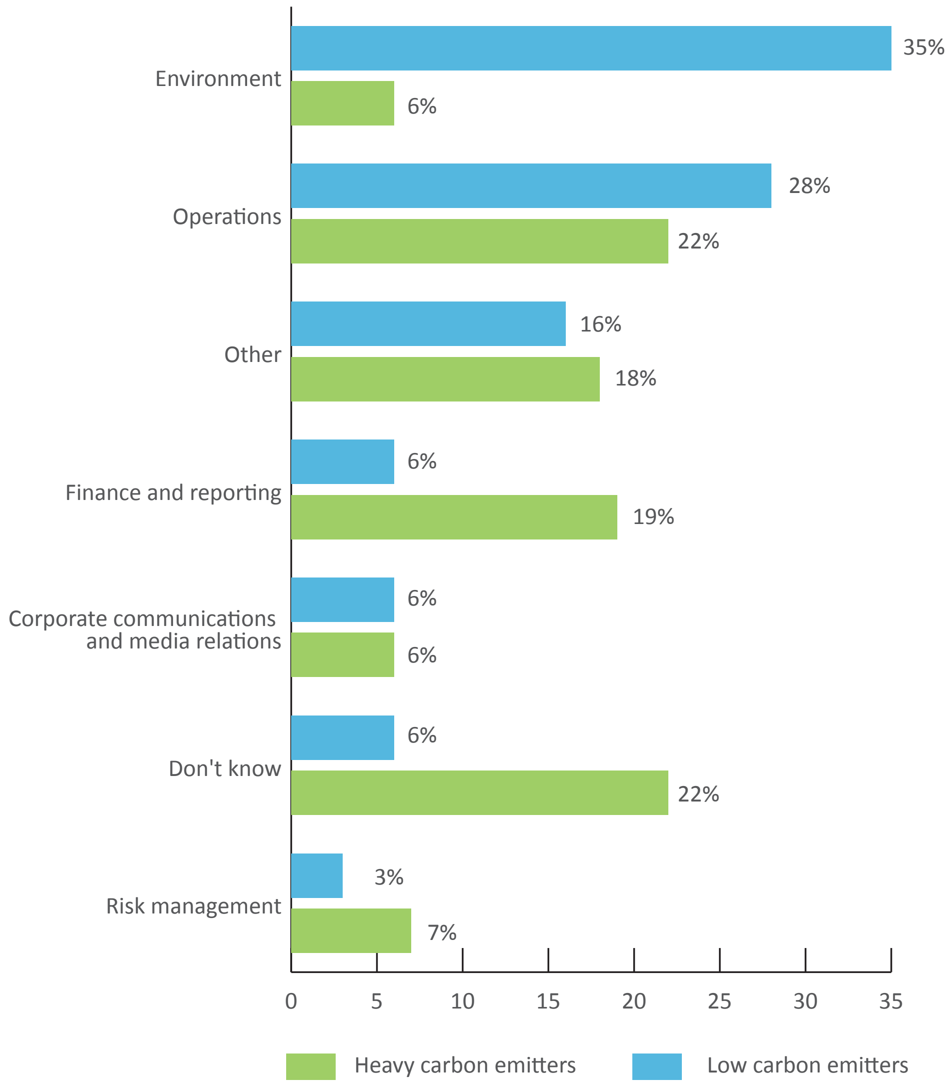
OWNERSHIP AND RESPONSIBILITY

Though finance executives are involved with carbon related reporting and performance programs, it is primarily the environmental and operations executives that are given the leading role.

A wide and diverse range of departments held responsibility for carbon management, executives reported. For heavy-carbon emitters, the environmental executives were the leading owners of carbon related reporting and performance programs. Low-carbon emitters reported that it was the operations executives who currently held ownership for carbon-related reporting and performance programs. Finance executives were more likely to be the owners of carbon initiatives in low carbon emitting organizations.

Cineplex Entertainment has found it convenient to outsource its utilities payments to a third-party firm since 2002, says CFO Gord Nelson. "Our focus was on tracking physical consumption as opposed to just the dollars; we've formed an energy committee a number of years ago which is comprised of operations, HR, facilities, finance: a cross disciplinary committee. Our goals and our targets have been focused on whether there are projects or installations including automation systems that we can put into reducing energy."

PRIMARY OWNERSHIP OF CARBON RELATED REPORTING AND PERFORMANCE PROGRAMS



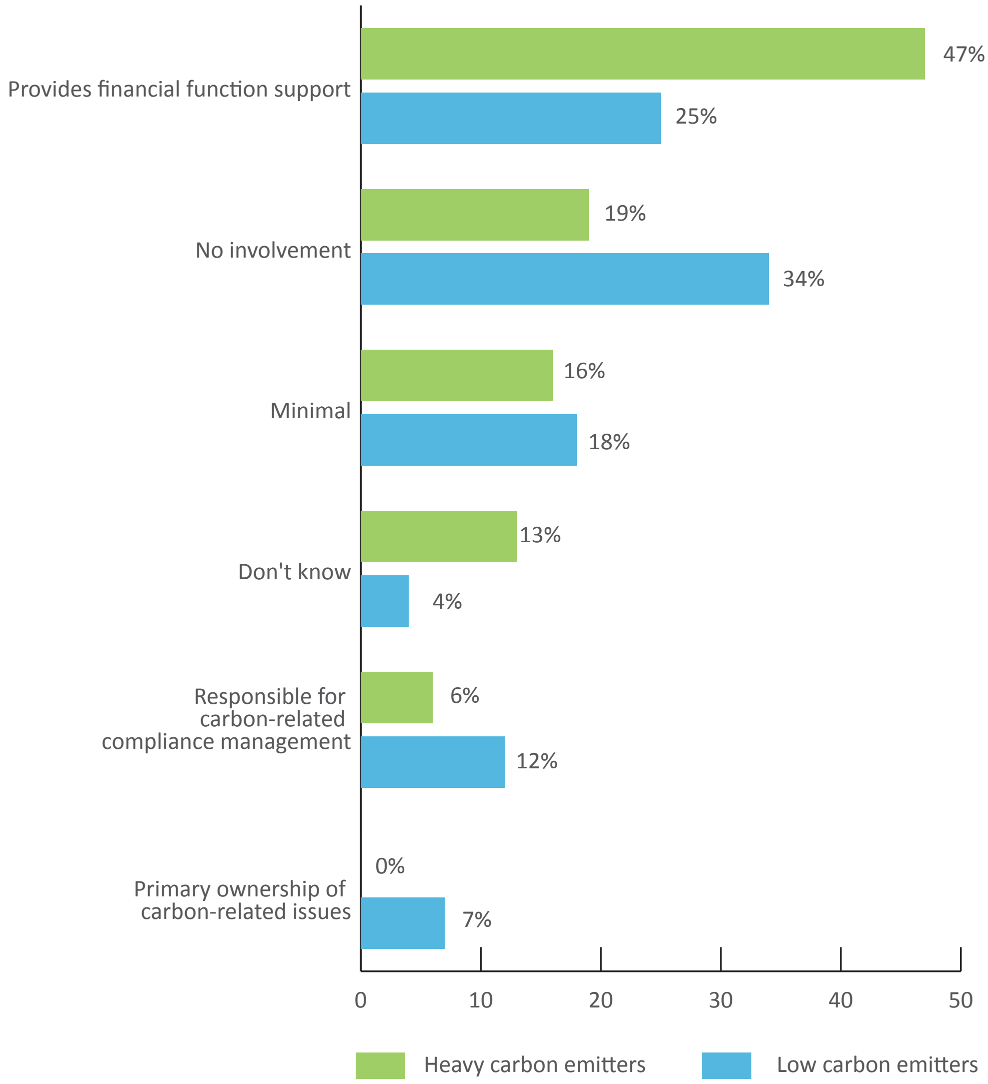
ROLE OF THE CFO

Though CFOs are not often the primary owner of carbon-related issues, they are critical in providing the financial analysis and support for carbon management initiatives.

Survey respondents were asked what role the CFO played in the development and management of carbon management programs. The largest group stated the CFO's office provided functional financial support (46% of heavy-carbon emitters/25% of low-carbon emitters). The CFO was the primary owner of carbon-related issues in seven percent of low carbon-emitting organizations, but not in any heavy emitting organizations.

However, for larger companies particularly, the role of the CFO is expanding to encompass an increasingly strategic role overall and in regards to CSR and environmental (and carbon) management and disclosure. At TELUS, Bob McFarlane, the Executive Vice President and CFO, in addition to having responsibility for traditional finance functions, also has responsibility for strategy, business development, risk management and CSR as well as government and regulatory affairs. To assist with this and to drive accountability for continuous CSR performance improvement across the Company, TELUS recently established a CSR leadership team of senior VPs responsible for areas that are key components of CSR.

ROLE OF THE CFO IN CARBON MANAGEMENT INITIATIVES



BUSINESS PERFORMANCE MEASUREMENT

GHG EMISSIONS IN BUSINESS VALUATION

Roughly one in five heavy emitters included GHG emissions performance as part of the business value of their companies and the importance of emission to the overall valuation will depend on the industry in question. According to Rob Dietrich of Timminco Ltd., since business valuations are based on the perception of what the future cash flows of a business are going to be, a participant in the solar market with a strong position may be valued higher today than a business relying on petroleum. Says Dietrich: "Certainly a company's industrial sector drives the multiple of the cash flow that people expect you're going to earn. As well, valuation is impacted if a company/industry is a large consumer of energy… value may well be impacted by the perception of the market of your source of energy and how you're going to sustain that source of energy or if that source of energy is going to disappear. For example, if you're a high consumer of electricity you are likely to be viewed more favourably if you're in a market with hydro-electricity than one that's generating electricity from coal because the perception of the investor is that you have an evergreen source of energy at a potentially lower cost. That's going to impact future cash flows, and therefore value." Business valuation will also be affected by legislation, says Bob Rollwagen of METRO Waste Paper Recovery. For instance, a company that once made incandescent light bulbs and once planned to expand, now faces near-extinction due to government regulation to ban their product and support energy efficient bulbs. "So, the investors are going to be looking for corporate management that reflects an awareness of the carbon environment and that illustrates a flexibility to react to the demands that exist in this kind of a world."

METHODS AND FREQUENCY OF TRACKING CARBON

Energy consumption (electricity, natural gas, steam, etc.) was the most commonly reported source of emissions reported by survey respondents, with 56% of heavy carbon emitters and 44% of low carbon emitters tracking GHG from energy use. This was following by process related consumption for heavy emitters (34%) and waste and transportation related emissions (25%).

For TELUS, looking at carbon is one part of its overall climate change strategy, according to Kasey Reese. The company understands that to move forward progressively on climate change it needs to go beyond mitigation activities; it needs to adapt and innovate as well. In addition to tracking and disclosing the company's carbon footprint and having that externally verified, Reese says, TELUS has for a number of years been tracking its eco-efficiency, which are emissions to revenue. It is also considering enhancing its eco-efficiency measures by tracking emissions to data, emissions to customer connections as well as seeking an absolute reduction target. "We look at this from a broader perspective in regards to climate change itself, and the impacts of climate change that we're already observing, in regards to our geographical footprint, not just in Canada, but where we have international operations as well," Reese says. "We are bolstering our business continuity planning readiness in regards to flash flooding, increased forest fires and other types of business continuity incidents associated with climate change."

Enbridge Gas Distribution has been tracking its emissions as part of a campaign to become carbon neutral, according to Bill Ross, the company's VP of Finance and IT. "The first stage is obviously measuring where all your greenhouse gas emissions come from. In our case, it's not just carbon dioxide, it's also methane gas, which is also a greenhouse gas. So there are numerous steps in place and stopping that and reducing that, but more significantly is the program to compensate whatever is being burned with creation of oxygen through all their mechanisms; either reforestation or introduction of solar panels in certain cases, and in other cases, where we have compression stations, generating electricity through wind. So there's a series of programs. There is an executive who is in charge of this and has the mandate to make it happen, and since it came from the CEO, it will happen."

Carbon Management at Indigo Books & Music

Indigo Books and Music analyzes emissions associated with office paper, packaging, printed materials, waste and is now working on energy data. The latter is challenging, because of the landlord-tenant relationship. Since landlords pay Indigo's utilities, the data is harder to obtain. Once the data is final, a financial analysis can begin. Two stores may have equal consumption, but different energy costs depending on location. Our plan is, once we get all the data and we've had an opportunity to normalize and rank store performance on other emissions or energy consumption then we'll see where our biggest expenditure is on an energy basis and we'll probably go after a lot of that low hanging fruit first through HVAC (heating, ventilation and air conditioning) upgrades, for instance, or other energy efficiency projects. After reduction, Indigo would consider renewable energy. We want to hit everything that we could possibly hit and then go for offsets.

– Michelle White, Director of Sustainability, Indigo Books & Music

A major challenge for companies now is trying to manage the complexity of the issue, especially for an international company operating in multiple jurisdictions. The devil is in the details and companies could face the prospect of having to maintain multiple records of inventories of greenhouse gas emissions calculated based on the regulations of the province/country in which the companies operate, which would be just dreadful. Also, it's not just GHG emissions reporting that need international standards, but also standards for the auditing of that data. Fortunately, the International Auditing and Assurance Standards Board is currently working on preparing such assurance standards.

– Julie Desjardins, President, Desjardins & Associates

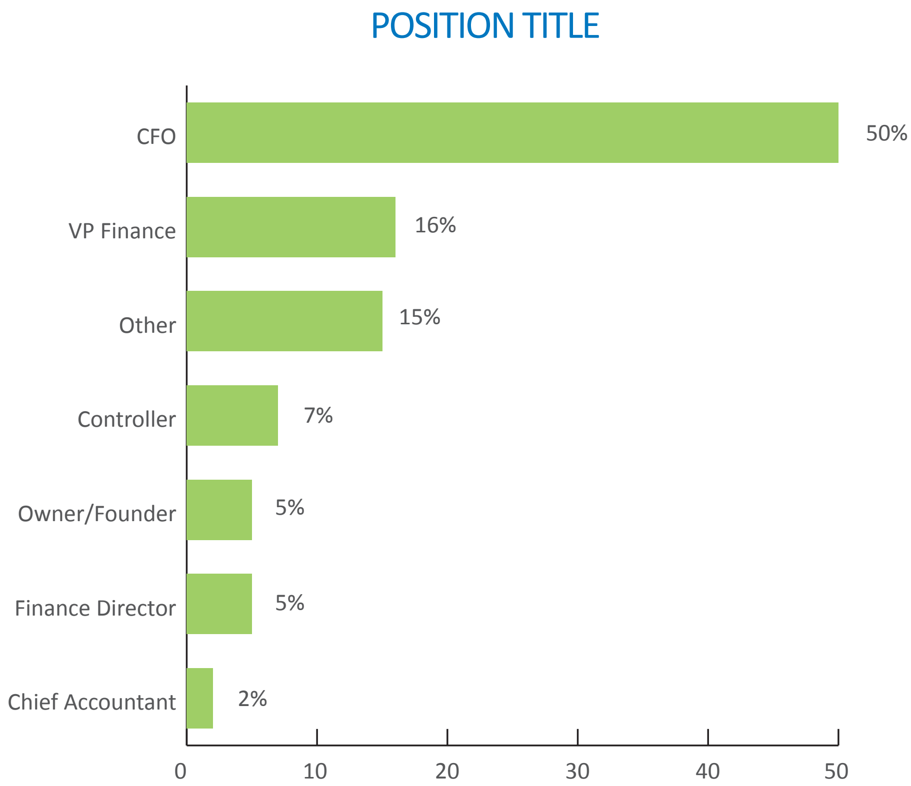
CONCLUSION

This study has revealed that many finance executives have some level of familiarity with the regulatory drivers behind carbon management in North America and that many of them, particularly those in high emitting industries, were aware of the risks associated with emerging regulations, non-compliance, and the impact of environmental performance on stakeholder perceptions.

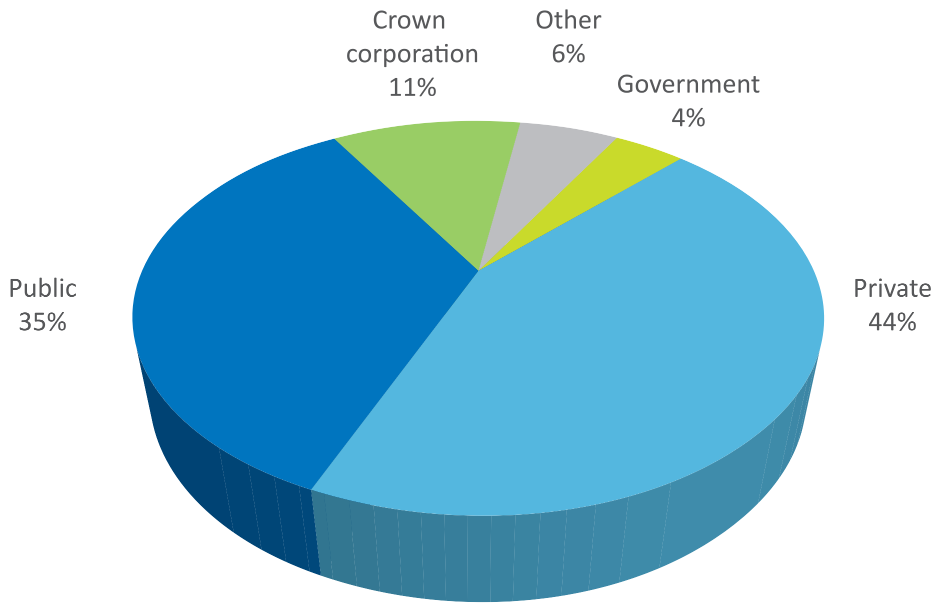
This study also showed that the stakeholders most interested in environmental performance varied by industry, with shareholders and employees being two of the more significant groups demanding responsible governance with respect to environmental related issues. Shareholders in higher emitting firms were more likely to play a predominant role than in low emitting firms, whereas employees in low emitting firms were more likely to take an interest in their carbon management agendas than those in high emitting firms. The role of the board also varied between these two groups where, as expected, emissions management had higher visibility at the board level of high emitting firms than low emitting firms.

In a growing number of companies, carbon management and strategy fell under the purview of the CFO. This was particularly true of smaller public and private companies that were not heavy emitters. For larger companies and heavy emitters, it was common to see well developed environmental management departments. However, regardless of company size, or whether or not the company is a heavy emitter, the CFO played a strategic role in developing and carrying out the carbon management strategy of the firm, as well as evaluating environmental management outcomes. Their role is to ensure that the metrics used to assess the companies environmental performance are accurately translated into financial values, and that these values are appropriately used in determining the ROI on new environmental information systems, investment in clean technologies, in the analysis of carbon trading and offsets, and understanding and communicating environmental risks to the CEO and the board. As the chief financial strategist of the firm, CFOs will also play an integral part in developing long term sustainability strategies that will achieve desired environmental results, subject to the financial constraints of the firm.

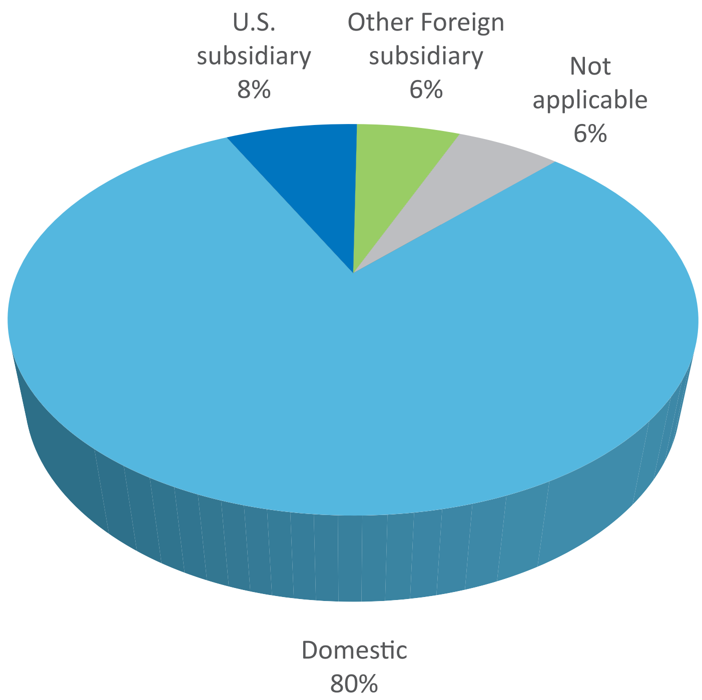
APPENDIX A – Survey demographics



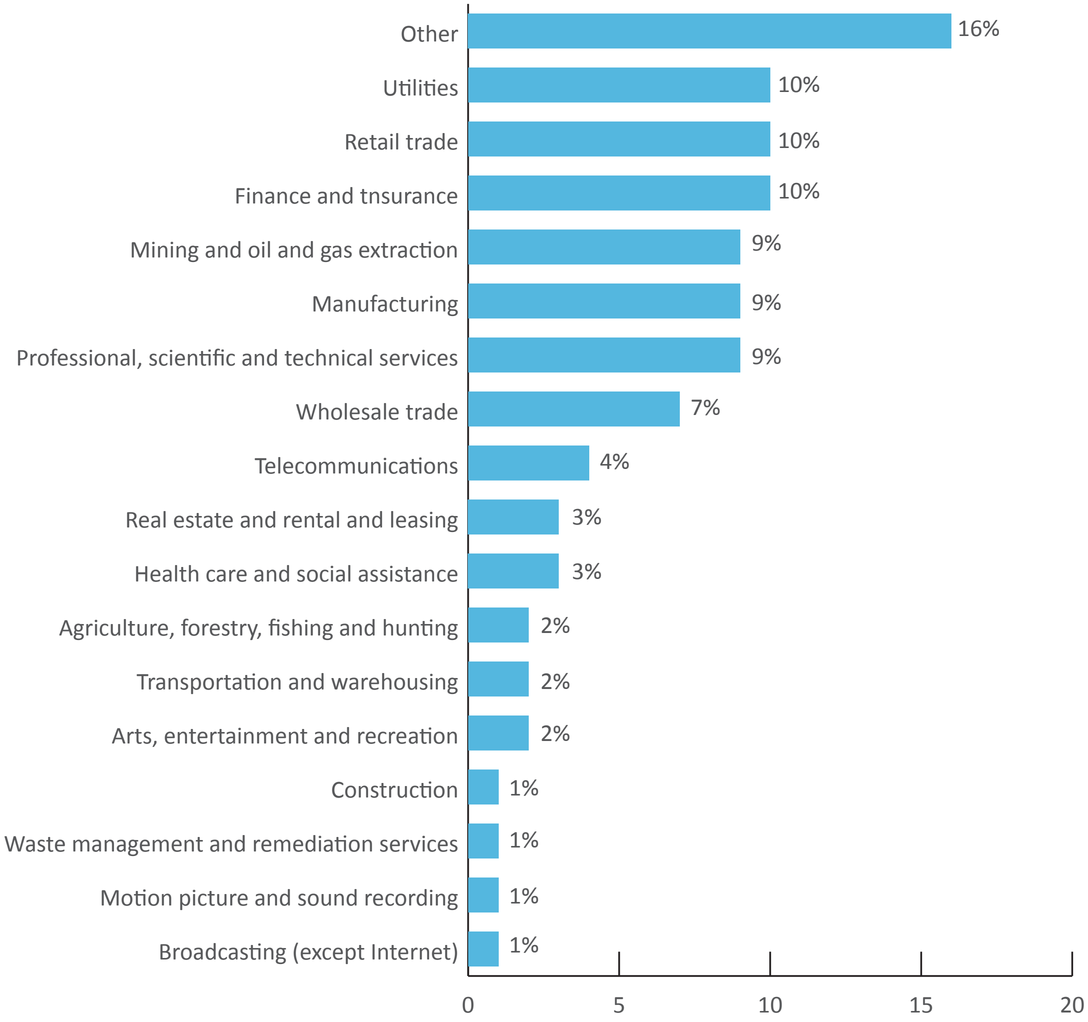
CORPORATE STRUCTURE



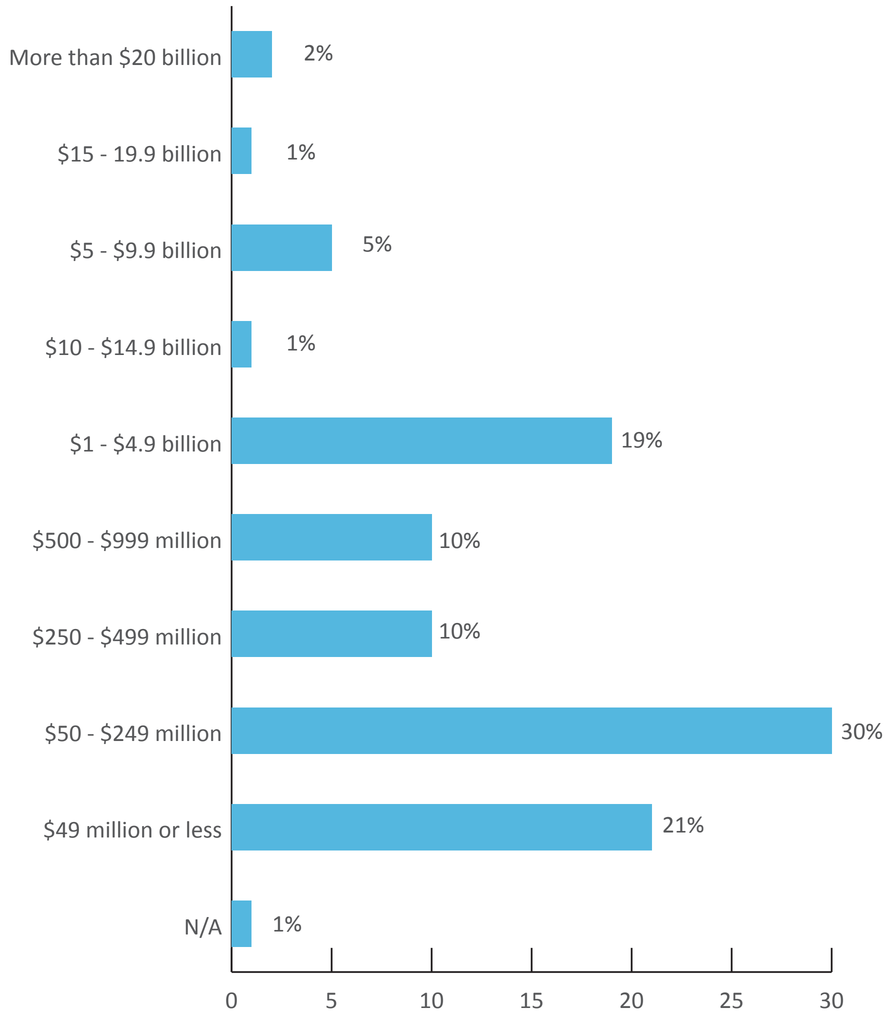
OWNERSHIP



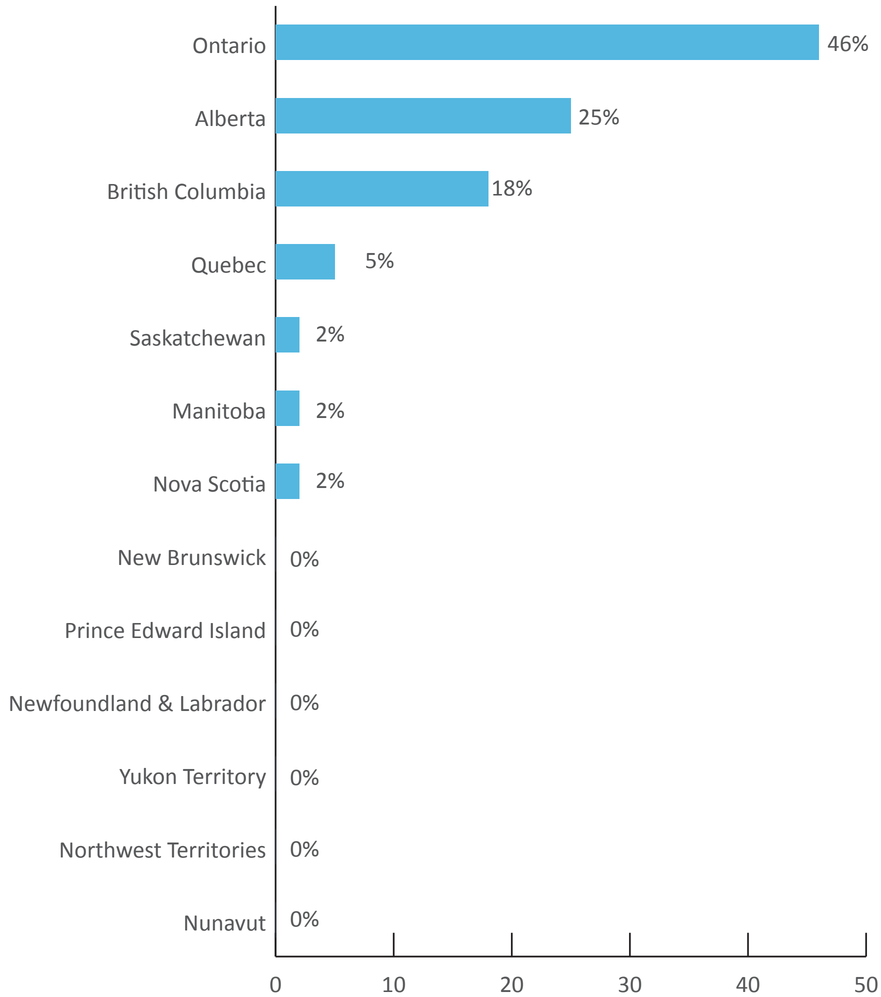
INDUSTRY CLASSIFICATION



REVENUE SIZE



LOCATION



Ontario
46%
Alberta
25%
British Columbia
18%
Quebec
5%
Saskatchewan
2%
Manitoba
2%
Nova Scotia
2%
New Brunswick
0%
Prince Edward Island
0%
Newfoundland & Labrador
0%
Yukon Territory
0%
Northwest Territories
0%
Nunavut
0%
0
10
20
30
40
50

APPENDIX B – Forum participants

Forum Chair:	Michael Conway, Chief Executive and National President, FEI Canada
Moderators:	Shane Pepin, Executive Director, Sustainability, Energy Advantage Ramona Dzinkowski, Executive Director, CFERF
Participants:	George Boire, Senior Vice President, Environmental, Marsh Canada Robert J. Dietrich, Executive Vice President, Finance and Chief Financial Officer, Timminco Ltd. Brian Fiedler, Vice President, CTC, Finance & Administration, Canadian Tire Corporation H.R. Goss, Chief Financial Officer & Treasurer, Ontario Realty Corporation Dr. James Gray-Donald, Sustainability Leader, Sears Canada Inc. Bob MacBean, Chief Financial Officer, Energy Advantage Theresa Mutlak, Director of Financial Reporting & Technology, Liquor Control Board of Ontario Gord Nelson, Chief Financial Officer, Cineplex Entertainment Kasey Reese, Vice President, Risk Management & Chief Internal Auditor, TELUS Corporation Bob Rollwagen, Chief Financial Officer, METRO Waste Paper Recovery Inc. Bill Ross, Vice President, Finance & Information Technology, Enbridge Gas Distribution Inc. John Weerdenburg, Vice President & Chief Financial Officer, Ottawa International Airport Authority Julie Desjardins, President, Desjardins & Associates Alan Willis, Founder & President, Alan Willis & Associates
Interviews:	Kent Carson, VP Finance, Holcim Canada Inc. Michelle White, Director, Sustainability, Indigo Books & Music Greg Scott, CFO, Maple Lodge Farms
FEI Canada:	Laura Bobak, Senior Writer, CFERF Darla Sycamore, Board of Trustees, CFERF

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