Module: Introduction

Page: Introduction

0.1

Introduction
Please give a general description and introduction to your organization

Established in 1817, BMO Financial Group is a highly diversified financial services provider based in North America. With total assets of $477 billion and 47,000 employees, BMO provides a broad range of retail banking, wealth management and investment banking products and services to more than 12 million customers. We serve more than seven million customers across Canada through our Canadian retail arm, BMO Bank of Montreal. We also serve customers through our wealth management businesses: BMO Nesbitt Burns, BMO InvestorLine, BMO Global Private Banking, BMO Global Asset Management and BMO Insurance. BMO Capital Markets, our North American investment and corporate banking division, provides a full suite of financial products and services to our North American and international clients. In the United States, BMO serves customers through BMO Harris Bank, an integrated financial services organization based in the U.S. Midwest with more than two million retail, small business and commercial customers. BMO Financial Group conducts business through three operating groups: Personal and Commercial Banking, Private Client Group and BMO Capital Markets.

For *Cautionary Statement Regarding Forward-Looking Information*, please see attachment entitled "CDP - FLI Statement.pdf".

0.2

Reporting Year
Please state the start and end date of the year for which you are reporting data.
The current reporting year is the latest/most recent 12-month period for which data is reported. Enter the dates of this year first.
We request data for more than one reporting period for some emission accounting questions. Please provide data for the three years prior to the current reporting year if you have not provided this information before, or if this is the first time you have answered a CDP information request. (This does not apply if you have been offered and selected the option of answering the shorter questionnaire). If you are going to provide additional years of data, please give the dates of those reporting periods here. Work backwards from the most recent reporting year.
Please enter dates in following format: day(DD)/month(MM)/year(YYYY) (i.e. 31/01/2001).

Enter Periods that will be disclosed
Mon 01 Nov 2010 - Mon 31 Oct 2011

0.3

Country list configuration

Please select the countries for which you will be supplying data. This selection will be carried forward to assist you in completing your response

Select country
Australia
Barbados
Brazil
Canada
China
France
India
Ireland
Luxembourg
Mexico
Singapore
Switzerland
United Arab Emirates
United Kingdom
United States of America

0.4

Currency selection

Please select the currency in which you would like to submit your response. All financial information contained in the response should be in this currency.

CAD ($)

0.5

Please select if you wish to complete a shorter information request

0.6

Modules
As part of the Investor CDP information request, electric utilities, companies with electric utility activities or assets, companies in the automobile or auto component manufacture sectors and companies in the oil and gas industry should complete supplementary questions in addition to the main questionnaire.
If you are in these sectors (according to the Global Industry Classification Standard (GICS)), the corresponding sector modules will be marked as default options to your information request. If you want to query your classification, please email respond@cdproject.net.
If you have not been presented with a sector module that you consider would be appropriate for your company to answer, please select the module below. If you wish to view the questions first, please see https://www.cdproject.net/en-US/Programmes/Pages/More-questionnaires.aspx.

Attachments

https://www.cdproject.net/Sites/2012/17/1417/Investor CDP 2012/Shared Documents/Attachments/InvestorCDP2012/Introduction/CDP - FLI Statement.pdf

Module: Management [Investor]

Page: 1. Governance

1.1

Where is the highest level of direct responsibility for climate change within your company?

Individual/Sub-set of the Board or other committee appointed by the Board

1.1a

Please identify the position of the individual or name of the committee with this responsibility

The Sustainability Council (SC), comprised of executives representing each of the business areas (i.e. Retail, Wealth, and Capital Markets) and Corporate areas, provides oversight and guidance in the execution our environmental strategy, the primary driver of which is climate change. The Chair of the SC is a member of the bank's Management Committee (MC) (comprised of the CEO's direct reports) and provides linkage to senior leadership on the progress and direction of the work. The SC meets quarterly. 90% of our carbon footprint is driven by emissions from the buildings that we occupy with the remainder coming from business travel by employees. This direct aspect of climate change is what we can best control and is managed within the Environmental Sustainability group, led by a Director, Environmental Sustainability responsible for measuring, evaluating and providing guidance and direction to manage our operational footprint. This individual reports to the Senior Vice President responsible for Corporate Real Estate, Procurement, and Strategic Sourcing. Indirect impacts (impact our business activities may have) of climate change are managed within the Corporate Sustainability group – led by a Director Corporate Sustainability who reports to the Senior Vice President , Deputy General Counsel, Corporate Affairs & Corporate Secretary. Both groups are represented as members of the SC. Any issues requiring escalation are brought to MC. Further escalation to the Board is at the discretion of the CEO and depends on materiality.

1.2

Do you provide incentives for the management of climate change issues, including the attainment of targets?

Yes

1.2a

Please complete the table

Who is entitled to benefit from these incentives?	The type of incentives	Incentivised performance indicator
Environment/sustainability managers	Monetary reward	Maintenance of enterprise-wide Carbon neutrality and ongoing participation/oversight for 5 year 10% absolute emissions target. Collaborate with business areas to identify ways to achieve this goal.

Who is entitled to benefit from these incentives?	The type of incentives	Incentivised performance indicator
Business unit managers	Monetary reward	Corporate real estate group has internalized the absolute emissions reduction target and how well this target is achieved is factored into their performance review and incentive payout.
Corporate executive team	Monetary reward	Reduction in expenses related to employee travel (commercial air) which also results in a reduction in GHG emissions.
Facility managers	Monetary reward	Contractual agreement with 3rd party facilities providers in Canada and the United States includes savings incentives.

Page: 2. Strategy

2.1

Please select the option that best describes your risk management procedures with regard to climate change risks and opportunities

Integrated into multi-disciplinary company wide risk management processes

2.1a

Please provide further details (see guidance)

From a risk management perspective, we consider the indirect impact of climate change; specifically the extent to which our clients' exposure may affect us. In 2011, we derived 62% of our revenues from our Personal & Commercial businesses and 19% from each of our Wealth and Capital Markets businesses. The focus on risk related to climate change is on those sectors in our Capital Markets businesses that are emissions intensive.
At the company level, the Corporate Sustainability group is responsible for identifying risks related to the effects of climate change. These risks are monitored as part of the regular sustainability issues monitoring that takes place on an ongoing basis. This is done by monitoring regulatory developments and their likelihood of occurrence through the review of literature (policy, legal opinion, research); participating in industry groups &/or conferences discussing the impacts of climate change; engaging with stakeholders to further understand their perspective on the business impacts of climate change and benchmarking ourselves against best practice organizations to get a sense of what actions they are taking in this regard. The information gathered is then distilled to determine the impact to our business and in collaboration with the potentially affected areas, a determination of materiality (against other issues and priorities) is made. To the extent that the identified risks are deemed material, a mitigation plan is put in place. Regardless of materiality, reporting on climate change issues is provided to the bank's Sustainability Council at the regularly scheduled meetings (quarterly).
At an asset level, risks associated with climate change fall within the category of credit and counterparty risk. BMO's credit risk management begins with our experienced professional lending and credit risk officers, who operate in a dual control structure to authorize lending transactions. When evaluating clients, we consider all risks in an integrated fashion as applicable; however, specific guidelines related to climate change are applied to transactions with clients operating in

emissions-intensive industry sectors. We seek to understand the borrower's climate change adaptation and mitigation strategies. We assess: - Whether the borrower monitors and reports their greenhouse gas emissions, as well as the extent and quality of such monitoring and reporting; - The extent of the borrower's overall greenhouse gas emissions; - Whether the borrower has a carbon mitigation plan, how it is being implemented and whether their Board of Directors was involved in its development; and - The borrower's preparedness to deal with any potential regulatory requirements regarding greenhouse gas emissions.
The output of our client evaluation/process is our credit risk profile which forms part of our overall risk reporting and quarterly disclosure directed at key stakeholders including the Board, Regulators, and the Investor Community.

2.2

Is climate change integrated into your business strategy?

Yes

2.2a

Please describe the process and outcomes (see guidance)

While BMO Financial Group (Bank of Montreal) does not operate in an emissions intensive industry, we understand our direct impact on climate change and are actively managing it. Our Guiding Principle is: "We aim to deliver top-tier shareholder return and balance our commitments to financial performance, our customers, our employees, the environment and the communities where we live and work."

Our strategic vision is "To be the bank that defines great customer experience" and our organization competes in a changing world. It's changing because people are reassessing their idea of value. They want the freedom to do their banking everywhere and they expect a higher standard of social responsibility from companies than ever before. Our message in this regard is consistently communicated both internally and externally through a variety of medium. Internally, we use regular communication from our CEO via intranet and targeted email communications, and business groups are measured based on performance targets. Externally, we disclose information about our strategic direction and ongoing results by way of regular press releases, on our website, and annually in Annual Reports and Corporate Responsibility Reports.

Climate change aspects influencing our strategy include both the rising costs of fuels for our own use and those borne by participants in our supply chain which may be passed on to us in the form of higher prices for their goods and services. We also see the opportunity to differentiate our organization, potentially resulting in additional brand recognition/profitability, by offering new products/business services relating to climate change and providing financing solutions to assist our customers in reducing their environmental impact. BMO has been very active in supporting our institutional clients' development of renewable energy - raising over $5.5bn for wind, hydro-electric and biomass projects since 2001. On the retail side, we provide opportunities for customers to do their banking from wherever they are (online, mobile) and with minimal impact on the environment (paperless statements). In addition to our sustainable mutual fund offerings, we have a mortgage product that rewards energy efficient characteristics of the home with a lower mortgage rate for the term of the mortgage.

The most important component of our short term strategy that has been influenced by climate change relates to our focus on carbon emissions reduction activities concerning own operations. We believe it is important to "walk the talk" and as such have been extremely focused on reducing our operational footprint as a starting

point. Emissions from the buildings that we occupy represent 90% of our footprint, with the balance attributed to business travel by employees. As the organization is currently targeting growth by acquisition, controlling operating costs is a critical element of this strategy. Energy consumption, the associated costs and reduced emissions are all key factors, particularly as we expect that energy costs will continue to increase and fossil fuel based resource availability comes under pressure.

Operationally we continue to focus on improving our practices. From a standards perspective, we have developed, documented and are now executing and governing retail and office build-outs to meet aggressive performance specifications. The revised office standards, which now include branding, functionality and sustainability elements have been communicated across the various business groups and are used to guide floor refresh activities. In addition to work we do on building standards, our membership in industry groups supports the voices seeking clarity around the need for coordinated progress and incentives on managing climate change. This is done particularly through the United Nations' Environment Program Finance Initiative.

The most important components of our long term strategy, influenced by climate change build on our short term goals. We intend to remain extremely focused on the rising energy costs resulting from the diminishing supply of fossil fuel based resources while at the same time continuing to look for opportunities, from both our own and our customers' perspective, in the area of alternative/renewable energy sources. We will also be monitoring the changes to the regulatory environment which may provide additional opportunities to enter new markets from a trading perspective.

BMO is well positioned with a clear strategy, and a brand promise common to every business. As we reach important milestones our aspirations remain ambitious. We take Corporate Governance seriously and are proud that BMO ranks among the top companies in Canada for governance. Our internal focus on the reduction of operating costs relating to energy consumption has contributed to both the bottom line and to BMO's reputation as an organization that considers climate change important.

2.2b

Please explain why not

2.3

Do you engage with policy makers to encourage further action on mitigation and/or adaptation?

Yes

2.3a

Please explain (i) the engagement process and (ii) actions you are advocating

BMO personnel participate on the (Standard Council of Canada's) Canadian Advisory Committee to the ISO Technical Committee responsible for developing energy management standards. Last year, ISO published a new global standard for energy management, ISO 50001:2011, Energy management systems – Requirements with guidance for use. This Standard provides benefits for organizations large and small, in both public and private sectors, in manufacturing and services, in all regions of the world. ISO 50001 establishes a framework to help organizations follow a systematic approach in achieving continual improvement of energy performance, including energy efficiency, energy use and consumption. Bank of Montreal supports this effort because, as an organization, we acknowledge that this initiative leads to greater environmental standardization and provides a larger value add to the environmental sustainability and energy management sector as a whole.

Page: 3. Targets and Initiatives

3.1

Did you have an emissions reduction target that was active (ongoing or reached completion) in the reporting year?

Absolute target

3.1a

Please provide details of your absolute target

ID	Scope	% of emissions in scope	% reduction from base year	Base year	Base year emissions (metric tonnes CO2e)	Target year	Comment
20111	Other: Maintain Carbon Neutrality	100%	100%	2011	201946.23	2011	Successfully maintained enterprise-wide carbon neutrality goal which was originally achieved in fiscal 2010. Note that for the purposes of this target, fiscal 2011 is quoted as the "base year" and "base year emissions" reflect total Scope 1+2+3 emissions.
20112	Scope 1+2+3	100%	10%	2010	157129.05	2015	In fiscal 2011, after having successfully achieved our initial absolute emissions reduction target, we established a new 5 year - 10% reduction target using fiscal 2010 as the new base year. During fiscal 2011 BMO Financial Group acquired a large U.S. Bank, a transaction that will require the restatement of baseline emissions for fiscal 2011. As such, we are likely to restate the target after normalizing for the impacts of the

ID	Scope	% of emissions in scope	% reduction from base year	Base year	Base year emissions (metric tonnes CO2e)	Target year	Comment
							acquisition and restating the baseline for 2011. The target will be a 5 year - 10% reduction versus the restated/normalized 2011 baseline.

3.1b

Please provide details of your intensity target

ID	Scope	% of emissions in scope	% reduction from base year	Metric	Base year	Normalized base year emissions	Target year	Comment

3.1c

Please also indicate what change in absolute emissions this intensity target reflects

ID	Direction of change anticipated in absolute Scope 1+2 emissions at target completion?	% change anticipated in absolute Scope 1+2 emissions	Direction of change anticipated in absolute Scope 3 emissions at target completion?	% change anticipated in absolute Scope 3 emissions	Comments

3.1d

Please provide details on your progress against this target made in the reporting year

ID	% complete (time)	% complete (emissions)	Comment
20111	100	100	Achieved/maintained. In August 2010 BMO publically announced that it had achieved its Carbon Neutrality goal, achieved through a combination of consumption reduction activities, the purchase of renewable electricity (Renewable Energy Certificates) and the purchase of high quality voluntary carbon offset credits. In fiscal 2011, we successfully maintained this ongoing goal.
20112	20	0	During fiscal 2011 BMO Financial Group acquired M&I Bank, a transaction that added significantly to the total Scope 1+2+3 emissions for the enterprise. While we did make progress in achieving emissions reductions (reductions identified per 3.3(b) below totalling 2,506 tCO2e), the impact of the acquisition nullified any reportable progress. As such, we will be restating the target after normalizing for the impacts of the acquisition and restating the baseline for 2011. The revised target will be a 5 year - 10% reduction versus the restated/normalized 2011 baseline.

3.1e

Please explain (i) why not; and (ii) forecast how your emissions will change over the next five years

3.2

Does the use of your goods and/or services directly enable GHG emissions to be avoided by a third party?

Yes

3.2a

Please provide details (see guidance)

BMO Financial Group offers electronic banking services which allow customers to consume fewer resources and reduce their carbon footprints. These services allow customers to complete banking transactions online, transfer funds electronically, view/pay bills and opt out of receiving paper statements (e.g. view statement details electronically).

i. How the emissions are/were avoided;

Our online services provide customers with electronic alternatives, thereby avoiding travel to BMO branch locations, facilitating reductions in their carbon footprint.

ii. An estimate of the amount of emissions that are/were avoided over time;
While quantifying customers' carbon emissions savings relative to travel avoided is difficult, we can estimate the impacts of paperless account statements. For those customers currently opting to view their account information electronically, we estimate the annual emissions reductions to be about 5 tonnes CO2e per year, versus the baseline established as fiscal 2008.

iii. The methodology, assumptions, emission factors and global warming potentials (if you have expressed your carbon saving figure in CO2e) used for your estimations;
Calculations have been completed using the Environmental Paper Network's online Paper Calculator v3.0, using the weight and delivery frequency of those paper statements avoided. The calculator has built into it the relative emissions factors and global warming potentials.

iv. Whether you are considering generating CERs or ERUs within the framework of CDM or JI (UNFCCC);
Not considered.

Green products - In order to promote energy efficiency and sustainable living, BMO introduced the BMO Eco Smart Mortgage. The mortgage is designed to encourage and reward Canadian homeowners looking to reduce their energy usage and save on household operating expenses. To qualify for the BMO Eco Smart Mortgage, a home must meet the requirements outlined in the BMO Eco Smart Mortgage checklist as confirmed by a third party appraiser (or energy auditor) arranged by BMO.

i. How the emissions are/were avoided;
BMO customers implement energy savings in their homes in order to qualify for the Eco Smart Mortgage. Examples include installation of Energy Star rated windows/doors, upgraded insulation, high efficiency heating/air conditioning systems etc., all aimed at reducing the consumption of utilities by the homeowner.

ii. An estimate of the amount of emissions that are/were avoided over time;
Not available.

iii. The methodology, assumptions, emission factors and global warming potentials (if you have expressed your carbon saving figure in CO2e) used for your estimations;
Not applicable – estimates not available.

iv. Whether you are considering generating CERs or ERUs within the framework of CDM or JI (UNFCCC);
Not applicable.

3.3

Did you have emissions reduction initiatives that were active within the reporting year (this can include those in the planning and/or implementation phases)

Yes

3.3a

Please identify the total number of projects at each stage of development, and for those in the implementation stages, estimated CO2e savings

Stage of development	Number of projects	Total estimated annual CO2e savings (only for rows marked *)
Under investigation	260	
To be implemented*	200	2750
Implementation commenced*	90	1300
Implemented*	198	2506
Not to be implemented	0	

3.3b

For those initiatives implemented in the reporting year, please provide details in the table below

Activity type	Description of activity	Estimated annual CO2e savings	Annual monetary savings (unit currency)	Investment required (unit currency)	Payback period
Energy efficiency: building services	Nature: This was part of a larger energy based infrastructure review focusing on mechanical infrastructure efficiencies (e.g., HVAC upgrades, installation of variable speed drives, higher efficiency motors, etc). Scope: This completed initiative resulted in reduced Scope 1 (natural gas) and Scope 2 (electricity) emissions and associated savings. Voluntary reduction effort Expected lifetime: This initiative is expected to accrue over the useful life of the various components affected.	221	38396	590122	>3 years

Activity type	Description of activity	Estimated annual CO2e savings	Annual monetary savings (unit currency)	Investment required (unit currency)	Payback period
	Paybacks range from under 1 year to in excess of 10 years, depending on the components addressed. We have recorded the more conservative payback for the “payback period”.				
Energy efficiency: building services	Nature: In 2011, BMO launched a program to upgrade lighting at all of our retail branch and office locations in the United States. We began with a lighting audit at 110 branches of BMO Harris Bank in the U.S. Of more than 21,000 fixtures examined, 67% did not meet our standards for energy efficiency. As a result, we initiated lighting retrofits at most branches. This retrofit initiative included installing daylight harvesting systems at locations that have good sources of natural light. The program is expected to save 2.4 million kwh per year, a 10% reduction from current levels. Scope: This completed initiative resulted in a reduction in energy consumption, carbon emissions (electricity - Scope 2 for owned facilities and Scope 3 for leased facilities), and maintenance costs. Voluntary reduction effort Expected lifetime: The savings will continue to accrue over the useful life of the upgraded fixtures/bulbs which we estimate to be 10 - 15 years.	798	339467	877292	1-3 years
Transportation: fleet	Nature: For the last several years, BMO has been refreshing its service fleet of vehicles with hybrids. Conventional gas powered vehicles are being replaced with hybrid sedans or SUVs, dependent on the business purpose. In fiscal 2011, BMO added 23 new hybrids to the service fleet. At the end of fiscal 2011, approximately 69% of our vehicle fleet has been converted to hybrids. Scope: This initiative reduces our Scope 1 emissions. Voluntary reduction effort Expected lifetime: Vehicles are continuously refreshed based on the lesser of 3 years in service or 90,000 km driven.	91			>3 years
Transportation: use	Nature: We have an ongoing focus on using available technology alternatives such as videoconferencing and teleconferencing in place of ground/air travel, particularly for internal meetings. Scope: This activity resulted in a reduction of Scope 3 emissions with the results being a decrease versus our fiscal 2010 results. Voluntary reduction effort Expected lifetime: This is an ongoing initiative.	1106			<1 year
Energy efficiency: building services	Nature: In fiscal 2011 BMO completed a pilot project where we implemented building monitoring/automation control systems in 10 retail branches in Canada. The system monitors/controls external signage (lighting), interior lighting, HVAC systems and supplementary heating equipment (baseboard heaters) controlled centrally via a web based application. In 2012, all new branches and major renovations will incorporate this technology. Scope: As the pilot focused on leased facilities, the resultant emissions reductions have been defined as Scope 3 (based on our Financial Control	93	63340	300000	>3 years

Activity type	Description of activity	Estimated annual CO2e savings	Annual monetary savings (unit currency)	Investment required (unit currency)	Payback period
	reporting boundary and treatment of leased assets. Voluntary reduction effort Expected lifetime: 10 - 15 years				
Energy efficiency: building services	Nature: In 2011, BMO continued to address opportunities, identified in previously conducted energy audits, to update lighting within retail branches across Canada. Retrofit activities were aligned with scheduled renovations at branch facilities completed during the fiscal year. Scope: This ongoing initiative resulted in a reduction in energy consumption, carbon emissions (electricity - Scope 2 for owned facilities and Scope 3 for leased facilities), and ongoing maintenance costs. Voluntary reduction effort Expected lifetime: The savings will continue to accrue over the useful life of the upgraded fixtures/bulbs which we estimate to be 10 - 15 years.	197	83803	216576	1-3 years

3.3c

What methods do you use to drive investment in emissions reduction activities?

Method	Comment
Dedicated budget for energy efficiency	Annually, we set aside a specified capital amount which is used to fund energy efficiency activities across the enterprise.
Dedicated budget for other emission reduction activities	As an organization committed to carbon neutrality (achieved in 2010), we recognize that achieving this goal annually is dependent on funding other emission reduction activities such as the purchase of offsets. BMO specifically budgets for these expenditures on an annual basis.
Employee engagement	Employee engagement continues to be a key element in our overall strategy to reduce emissions across the organization. Our Environmental Ambassadors (employee volunteers) act as champions in the field to promote our sustainability efforts. Our employees participate in driving down emissions by promoting behavioural change and also feed back ideas to the Sustainability Office for deployment consideration on a broader basis. BMO invests annually in internal communication support media (e.g. intranet, newsletters, etc.) to support employee engagement efforts.
Financial optimization calculations	As an organization (financial institution) with access to capital, we have the opportunity to move beyond normal capital restrictions where there is a positive impact from a "cash flow" perspective on the annual expense line. We regularly assess initiatives using this

Method	Comment
	cash flow basis or life-cycle approach which allows for extended ROI projects to be approved.
Internal price of carbon	Since 2008, BMO has been monetizing the value of carbon emissions savings (based on an internally established price of carbon) and including the benefits as part of every energy related business case.
Lower return on investment (ROI) specification	There are a variety of means by which we determine whether emissions reductions initiatives receive funding. While not the only reason, ROI specification is one of them. We do look at extended ROI for owned assets, particularly in the case of real estate assets where there is an expectation that we will occupy beyond the short term.
Marginal abatement cost curve	The typical marginal abatement cost curve (MACC) analysis methodology is another method we use to asses potential emissions reduction activities. We continue to move from left to right on the MACC as initiatives are completed.

3.3d

If you do not have any emissions reduction initiatives, please explain why not

Page: 4. Communication

4.1

Have you published information about your company's response to climate change and GHG emissions performance for this reporting year in other places than in your CDP response? If so, please attach the publication(s)

Publication	Page/Section Reference	Identify the attachment
In annual reports (complete)	MD&A page 93	BMO Financial Group 194th Annual Report 2011 (bmo_ar11_mda.pdf)
In voluntary communications (underway) – this is our first year	12-16: see comment box	Sustainability Report
In voluntary communications (underway) – previous year attached	CR Report pgs 17-21	Corporate Responsibility Report 2010 (BMO_CRPAS2010en.pdf)

Publication	Page/Section Reference	Identify the attachment
In voluntary communications (underway) – previous year attached	http://www.bmo.com/home/about/banking/corporate-responsibility/environment/environmental-performance	BMO ECO5 Report2010.fpf

Further Information

Our 2011 Sustainability Report has been developed in accordance with the Global Reporting Initiative Guidelines G3.1 and the Financial Services Sector Supplement. The document will be available on www.bmo.com/corporateresponsibility by the middle of June. The working page numbers for climate change and GHG performance information are: 12-16 (subject to change).

Attachments

https://www.cdproject.net/Sites/2012/17/1417/Investor CDP 2012/Shared Documents/Attachments/InvestorCDP2012/4.Communication/bmo_ar11_mda.pdf
https://www.cdproject.net/Sites/2012/17/1417/Investor CDP 2012/Shared Documents/Attachments/InvestorCDP2012/4.Communication/BMO_CRPAS2010en.pdf
https://www.cdproject.net/Sites/2012/17/1417/Investor CDP 2012/Shared Documents/Attachments/InvestorCDP2012/4.Communication/BMO ECO5 Report2010.pdf

Module: Risks and Opportunities [Investor]

Page: 2012-Investor-Risks&Opps-ClimateChangeRisks

5.1

Have you identified any climate change risks (current or future) that have potential to generate a substantive change in your business operations, revenue or expenditure? Tick all that apply

Risks driven by changes in regulation
Risks driven by changes in physical climate parameters
Risks driven by changes in other climate-related developments

5.1a

Please describe your risks driven by changes in regulation

ID	Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact
51a-1	Fuel/energy taxes and regulations	Rising costs for the use of electricity &/or natural gas as consumed in our real estate premises occupied.	Increased operational cost	1-5 years	Direct	Likely	Low
51a-2	Fuel/energy taxes and regulations	Rising costs for the use of electricity &/or natural gas borne by participants in our supply chain may be passed on to us in the form of higher prices for their goods and services.	Increased operational cost	1-5 years	Indirect (Supply chain)	More likely than not	Low
51a-3	Carbon taxes	In the event that regulation around emissions reductions in the form of carbon taxes for our clients operating in emissions intensive industries occurs; it may increase their operational cost which could put financial pressure on their ability to repay loans or meet other financial commitments they have with us.	Other: impact on credit risk profile	Unknown	Indirect (Client)	Unknown	Low
51a-4	Product efficiency regulations and standards	Building regulations concerning energy efficiency. While not currently regulated in North America, there is clearly a move towards a variety of voluntary rating systems such as LEED, BOMABest, Energy Star, etc. As a financial institution occupying office space, future regulation could be a factor.	Increased capital cost	1-5 years	Direct	More likely than not	Low

5.1b

Please describe (i) the potential financial implications of the risk before taking action; (ii) the methods you are using to manage this risk; and (iii) the costs associated with these actions

51a-1 – Fuel/energy taxes/regulations
(i) According to one source cited by the Canadian Broadcasting Corporation, energy prices may increase by over 50% by 2020 across Canada. Similar and varying predictions have been made for energy prices within the United States. Regulations aimed mainly at the consumption of fuel and/or other energy types would impact our operational costs, however as an office based financial institution, we would not expect the financial implications to be significant. BMO Financial Group's fiscal 2011 reported operating costs totalled approximately $8.6 billion, with less than $100 million relating to annual energy costs. While energy costs represent a small percentage (about 1%) of our total operating costs on an annual basis, BMO actively seeks to maximize cost savings wherever possible.
(ii) We currently manage escalating fuel/electricity costs as part of our annual budgeting process and have undertaken some very specific measures to hedge

against price escalations and/or measures to continually drive down consumption. For facilities, in specific areas of North America where opportunities exist, we have entered into bulk fuel/electricity purchase contracts at the wholesale level to insulate the organization against price increases. In addition, we continue to concentrate our efforts on consumption reduction efforts, focusing on retrofits to building envelope, HVAC systems and lighting, as a way of reducing our ongoing operating costs, as well as emissions. We continue to act on the energy audit reports (commissioned for approximately 33% of our retail facilities in Canada and the United States) and forecast energy consumption/cost savings of between 15% - 20% annually when all recommended actions are completed.
(iii) From a cost to manage perspective, these are not viewed to be significant either. Consumption reduction initiatives are business cased as normal, and the infrequency of the bulk energy/electricity contract purchases is not a drain on resources, either financially or from a personnel perspective. We believe that by focusing on both price (costs of fuels/electricity) and demand (consumption), the product of which is "expense", we will be in a good position to deal with any future regulatory/tax changes.
51a-2 – Fuel/energy taxes/regulations
(i) As a financial institution, with an approximate annual spend of $3.4 billion (CAD), for all goods and services, regulations aimed mainly at the consumption of fuel and/or other energy types which affect our suppliers would likely impact our operational costs. The financial magnitude of this increase is difficult to estimate as the determining factors would include the size of the increase and its pervasiveness across the geographic areas in which we operate.
(ii) To manage the escalating costs of goods and services provided by suppliers, whether due to regulatory/tax changes or other, we employ a very rigorous sourcing process. This process includes a formal competitive bid process for spend beyond threshold levels, back to market activities and regular communication with our supplier base. Contractual arrangements also exist to protect the organization against price variability, at least for the current term of the arrangement. Beyond the contract completion, BMO also works strategically with vendors to encourage ongoing supply chain related efficiencies and environmental benefits. One such example is the partnership established with our preferred office supplies vendor in Canada. After analysing the delivery data (frequency & volume) of office supplies for large office locations across the country, we mutually agreed to restrict deliveries to twice per week (previously daily). By consolidating orders and visiting our locations less frequently, our supplier has reduced the number of trucks on the road as well as the associated greenhouse gas emissions. GHG reductions are estimated to be approximately 34% as a result of this initiative. We have also worked with this same vendor to introduce a reusable tote for office supply deliveries to reduce recycling waste (currently cardboard boxes) within our facilities. By reducing the amount of resources consumed within our supply chain, we encourage the consistency of pricing offered by our vendors.
(iii) From a cost to manage perspective, there is little additional cost/effort required to keep abreast of the potential regulatory changes as this is a function of our current risk management process. Managing the impacts of increasing operational costs within our supply chain, whatever the reason, is also an existing process so again no expected additional costs.

51a-3 – Carbon Taxes
(i) In the absence of regulation and clear guidance right now, we have not isolated the potential financial implications associated with this risk.
(ii) The credit risk arising from potential carbon taxes imposed on our clients is captured within our enterprise wide risk management framework. Specific guidelines related to climate change are applied to transactions with clients operating in emissions-intensive industry sectors. In addition to other factors mentioned earlier, we assess: (a) whether the borrower monitors and reports its greenhouse gas emissions, as well as the extent and quality of such monitoring and reporting; (b) the extent of the borrower's overall greenhouse gas emissions; (c) whether the borrower has a carbon mitigation plan, how it is being implemented and whether its Board of Directors was involved in its development; and (d) the borrower's preparedness to deal with forthcoming regulatory requirements regarding greenhouse gas emissions.
(iii) There is no additional cost to manage this risk as it is within the context of our existing risk management framework.

51a-4 – Product efficiency regulations and standards
(i) As a financial institution with approximately 19.7 million square feet of occupancy (owned and leased) mainly in North America, the introduction of building regulations could result in additional capital costs for our organization. We view the move to making buildings more efficient as a positive step. Without knowledge of the specifics of any change, it is difficult to quantify the financial impacts but would result in upward pressures on our capital costs to build and downward pressures on our ongoing operating costs.
(ii) This risk would be managed as part of our normal construction/renovation activities and we would incorporate any new standards into the process as and when

they are introduced.
(iii) We would not expect the costs to be significant as any new regulation is likely to be forward looking with the current building stock to be addressed over time.

5.1c

Please describe your risks that are driven by change in physical climate parameters

ID	Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact
51c-1	Change in temperature extremes	Interrupted supply of energy, water, telecommunications and transportation resulting in increased costs to invoke alternate work arrangements (business continuity plans), lost productivity due to disruption to operations and workforce absenteeism. Approximately 99% of BMO's physical real estate occupied is located in North America.	Increased operational cost	6-10 years	Direct	Very likely	Low
51c-2	Change in precipitation pattern	Interrupted supply of energy, water, telecommunications and transportation resulting in increased costs to invoke alternate work arrangements (business continuity plans), lost productivity due to disruption to operations and workforce absenteeism. Approximately 99% of BMO's physical real estate occupied is located in North America.	Increased operational cost	>10 years	Direct	Likely	Low
51c-3	Change in precipitation extremes and droughts	Interrupted supply of energy, water, telecommunications and transportation resulting in increased costs to invoke alternate work arrangements (business continuity plans), lost productivity due to disruption to operations and workforce absenteeism. Approximately 99% of BMO's physical real estate occupied is located in North America.	Increased operational cost	6-10 years	Direct	Very likely	Low
51c-4	Tropical cyclones (hurricanes and typhoons)	Interrupted supply of energy, water, telecommunications and transportation resulting in increased costs to invoke alternate work arrangements (business continuity plans), lost productivity due to disruption to operations and workforce absenteeism. This risk would be most prominent for our facilities located in China, and those locations subject to hurricanes in the United States (e.g. Florida, Kansas).	Increased operational cost	>10 years	Direct	Likely	Low
51c-	Change in	Interrupted supply of energy, water, telecommunications	Increased operational	6-10 years	Direct	Very likely	Low

ID	Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact
5	mean (average) temperature	and transportation resulting in increased costs to invoke alternate work arrangements (business continuity plans), lost productivity due to disruption to operations and workforce absenteeism. Approximately 99% of BMO's physical real estate occupied is located in North America.	cost				
51c-6	Uncertainty of physical risks	Physical risks affecting our suppliers could ultimately impact not only our own operations but our provision of products or services to our customers as well, depending on the circumstances. We view the range of impacts as follows: (a) minor delay in service or delivery (e.g. if paper supplies are impacted, internal processes and perhaps paper based deliverables to customers could be delayed); (b) supply chain issues resulting in need to switch to alternate supplier which may result in delayed delivery, process workarounds, increased costs and differences in quality of materials (better or worse) and; (c) complete cessation of service or delivery in the short to medium term.	Reduction/disruption in production capacity	1-5 years	Indirect (Supply chain)	More likely than not	Low

5.1d

Please describe (i) the potential financial implications of the risk before taking action; (ii) the methods you are using to manage this risk; and (iii) the costs associated with these actions

51c-1 – Change in Temperature Extremes
(i) We have not modelled the financial implications of this risk but based on current experience, we do not expect them to be material to our financial condition. Financial implications could vary greatly based on geographic locations; cost of energy, as well as the state of our physical infrastructure, including technology.
(ii) To manage the risks, all units develop business continuity plans appropriate to the time sensitivity of the activity being performed (e.g. employees working from home, split operations).
(iii) The costs associated with these actions are part of our ongoing business continuity planning and are not considered to be incremental.
51c-2 – Change in Precipitation Patterns
(i) We have not modelled the financial implications of this risk but based on current experience, we do not expect them to be material to our financial condition. Financial implications could vary greatly based on geographic locations of facilities occupied.

(ii) Our Business Continuity Management (BCM) team manages this risk by monitoring the trends for precipitation patterns in the potentially affected regions. In the event that our facilities are unable to operate, we rely on our wide distribution network as well as alternate delivery channels (online banking, telephone banking) to provide service to our customers. In order to manage the risks at the local level, all business units develop business continuity plans appropriate to the time sensitivity of the activity being performed (e.g. employees working from home, split operations)
(iii) Flood remediation costs could range from $50k-$100k per unit depending on the severity of the damage and could escalate if not addressed right away as mould or decay could be an issue in the future. From a business continuity oversight perspective, there are no additional costs foreseen as this is part of our existing cost structure.
51c-3 – Change in Precipitation extremes and droughts
(i) We have not modelled the financial implications of this risk but based on current experience, we do not expect it to be material to our financial condition. Modelling the financial implications would seem difficult and inaccurate since changes to precipitation extremes and droughts could vary greatly across the geographies in which our facilities are located.
(ii) Our Business Continuity Management (BCM) team manages this risk by monitoring the trends for precipitation extremes in the potentially affected regions. In the event that our facilities are unable to operate, we rely on our wide distribution network as well as alternate delivery channels (online banking, telephone banking) to provide service to our customers. In order to manage the risks at the local level, all business units develop business continuity plans appropriate to the time sensitivity of the activity being performed (e.g. employees working from home, split operations).
(iii) Flood remediation costs could range from $50k-$100k per unit depending on the severity of the damage and could escalate if not addressed right away as mould or decay could be an issue in the future. As a financial institution, our operations are not heavily dependent on water. From a business continuity oversight perspective, there are no additional costs foreseen as this is part of our existing cost structure.
51c-4 – Tropical cyclones (hurricanes and typhoons)
(i) We have not modelled the financial implications of this risk but based on current experience, we do not expect it to be material to our financial condition. We believe we have limited direct exposure to this risk as facilities currently located in areas subject to these conditions are minimal.
(ii) Our Business Continuity Management (BCM) team manages this risk by monitoring the trends for extreme weather events in the potentially affected regions. In the event that our facilities are unable to operate, we rely on our wide distribution network as well as alternate delivery channels (online banking, telephone banking) to provide service to our customers. In order to manage the risks at the local level, all business units develop business continuity plans appropriate to the time sensitivity of the activity being performed (e.g. employees working from home, split operations).
(iii) Flood remediation costs could range from $50k-$100k and/or additional costs per unit depending on the severity/type of the damage and could escalate if not addressed right away as mould or decay could be an issue in the future. From a business continuity oversight perspective, there are no additional costs foreseen as this is part of our existing cost structure.
51c-5 – Change in mean (average) temperatures
(i) We have not modelled the financial implications of this risk but based on current experience, we do not expect it to be material to our financial condition. Modelling the financial implications would seem difficult and inaccurate since average temperature fluctuations could vary across the geographies in which our facilities are located.
(ii) Our Business Continuity Management (BCM) team manages this risk by monitoring the trends for changes to weather temperatures across the regions where our facilities are located. In the event that our facilities are unable to operate, we rely on our wide distribution network as well as alternate delivery channels (online banking, telephone banking) to provide service to our customers. In order to manage the risks at the local level, all business units develop business continuity plans appropriate to the time sensitivity of the activity being performed (e.g. employees working from home, split operations).
(iii) This is part of our ongoing business continuity planning and does not represent additional cost to the organization.
51c-6 – Uncertainty of physical risks
(i) We have not modelled the financial implications of this risk.
(ii) With a relatively diverse supply base we would anticipate the ability to move to an alternate provider with relative ease and at cost competitive pricing. For more significant suppliers/partner relationships, where there is perhaps more risk associated with the failure to perform, we classify and manage these vendors as "high risk". We require the existence and regular testing of supplier’s business contingency plans and also request confirmation of annual testing of the BCP plans as part of our annual attestation exercise. In addition, we also ensure that there are plans in place to deal with disruption of service in the event that the supplier or partner

encounters issues.
(iii) This is part of our ongoing business continuity planning and does not represent additional cost to the organization.

5.1e

Please describe your risks that are driven by changes in other climate-related developments

ID	Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact
51e-1	Reputation	Reputation risk based on our financial relationships with customers in emissions intensive industries.	Other: customer impact, reduced market valuation	Unknown	Direct	Unlikely	Unknown

5.1f

Please describe (i) the potential financial implications of the risk before taking action; (ii) the methods you are using to manage this risk; (iii) the costs associated with these actions

51e-1 - Reputation
(i) It is difficult to accurately quantify the financial impact of reputation risk however we do value our reputation and strive to protect it in all we do. Our operations are predominantly in North America where cohesive regulations related to climate change do not currently exist. The potential impact to reputation is our association with customers in industries that are emissions-intensive.
(ii) To manage this risk, specific guidelines related to climate change are applied to transactions with clients operating in emissions-intensive industry sectors. In addition to other integrated risk factors, we assess: (a) whether the borrower monitors and reports its greenhouse gas emissions, as well as the extent and quality of such monitoring and reporting; (b) the extent of the borrower's overall greenhouse gas emissions; (c) whether the borrower has a carbon mitigation plan, how it is being implemented and whether its Board of Directors was involved in its development; and (d) the borrower's preparedness to deal with forthcoming regulatory requirements regarding greenhouse gas emissions. We also monitor the regulatory landscape to ensure that should change occur, we are ready to incorporate the effects into our business.
(iii) These activities performed by the Corporate Responsibility and Sustainability / Risk Management teams are within existing infrastructure and work plans so do not represent additional costs to the organization. We also actively work towards promoting our brand and protecting our reputation by demonstrating environmental leadership. Our achievement of Carbon Neutrality in 2010 comes with a cost. In addition to the annual capital costs related to ongoing conservation efforts, we spend just under $3 million annually on the purchases of renewable energy credits (RECs) and high quality voluntary carbon offset credits.

5.1g

Please explain why you do not consider your company to be exposed to risks driven by changes in regulation that have the potential to generate a substantive change in your business operations, revenue or expenditure

5.1h

Please explain why you do not consider your company to be exposed to risks driven by physical climate parameters that have the potential to generate a substantive change in your business operations, revenue or expenditure

5.1i

Please explain why you do not consider your company to be exposed to risks driven by changes in other climate-related developments that have the potential to generate a substantive change in your business operations, revenue or expenditure

Page: 2012-Investor-Risks&Opps-ClimateChangeOpp

6.1

Have you identified any climate change opportunities (current or future) that have the potential to generate a substantive change in your business operations, revenue or expenditure? Tick all that apply

Opportunities driven by changes in regulation
Opportunities driven by changes in physical climate parameters
Opportunities driven by changes in other climate-related developments

6.1a

Please describe your opportunities that are driven by changes in regulation

ID	Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact
61a-1	Product labeling regulations and standards	The ongoing enhancement to product labelling regulations and standards facilitates better purchasing decisions. Standards such as Energy Star and LEED or BOMA provide us with the opportunity to make more informed choices when comparing energy efficient equipment, or real estate facilities for occupancy. Standards provide us with the assurance of quality and those related to energy, and the products assist us in reducing energy consumption and the resultant GHG emissions. Our procurement practices have incorporated the use of product labelling and standards as part of the overall assessment criteria. For example, our requirements when procuring paper products are that they be sourced from sustainably managed forest operations (e.g. FSC). We have similar requirements for purchases of technology equipment (e.g. Energy Star).	Reduced operational costs	Current	Direct	Virtually certain	Low
61a-2	Voluntary agreements	BMO voluntarily participates in the independent, internationally recognized ISO14001:2004 for Environmental Management Systems. Adoption of this standard for a number of our facilities provides evidence of our leadership in taking voluntary action with both employees and external stakeholders. Our carbon emissions footprint is verified annually by an accredited 3rd party and our carbon neutral commitment/achievement is also voluntary. We believe these actions have a positive impact on our reputation with employees and stakeholders.	Other: Increased employee engagement and positive reputational impact	Current	Direct	Very likely	Low-medium
61a-3	Cap and trade schemes	BMO Financial Group is a North American based organization with a presence in the global capital markets. Introduction of legislation may present opportunities for participation in new emission trading markets. To date there has been limited	New products/business services	Unknown	Direct	Unknown	Unknown

ID	Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact
		opportunities in North America as legislation is unclear and existing markets are very thin.					
61a-4	Product efficiency regulations and standards	Standards such as Energy Star and LEED or BOMA provide us with the opportunity to make more informed choices when comparing energy efficiencies and other sustainability elements relative to real estate facilities being considered for occupancy.	Reduced operational costs	Current	Direct	Virtually certain	Low

6.1b

Please describe (i) the potential financial implications of the opportunity; (ii) the methods you are using to manage this opportunity; (iii) the costs associated with these actions

61a-1 – Product labelling regulations and standards
(i) Our ability to rely on the rigours behind quality product labelling and standards provides us with assurance of performance for energy related products and is one of the ways in which we can reduce our energy consumption and resultant GHG emissions. This leads to both annual operating cost savings (more efficient products) from reduced energy consumption and supports our strategy to shift the costs away from carbon offsets purchases. There may be incremental “first costs” when specifying purchases of specific standards however our analysis suggests that the total life cycle costs will be lower. Energy reductions will contribute to cost savings against this element of our operating budget which represents approximately 1% of our total operating expenses.

(ii) BMO manages this through robust procurement standards which, depending on the product being sourced, will call for specific standards to be met. Examples include Energy Star for technology equipment and FSC for paper purchases.

(iii) There is no additional annual cost associated with our procurement practices as the incorporation of standards based purchasing (where available) is part of our normal operating practice.

61a-2 – Voluntary agreements
(i) There is a direct financial cost associated with the certification of our facilities to ISO 14001:2004 EMS, relating to the 3rd party certification (once every 3 years) and annual surveillance activities. Additionally there are internal employee costs incurred with managing this effort (creating/updating procedures, internal audits, etc.). Annual costs are estimated to be approximately $50k for both elements. The implementation of the EMS at facilities also derives value as reduction targets are established, monitored and met, contributing to our 10% absolute enterprise emissions reduction goal. There are also annual costs associated with our annual emissions verification however the assurance benefits far outweigh the expense.

(ii) BMO's Environmental Sustainability group oversees the strategic implementation of the ISO 14001:2004 certified EMS at our facilities. This group also coordinates the calculation of enterprise carbon emissions, annual verification and carbon neutrality strategy. Annual reporting related to these elements is aligned with our fiscal period in order to align with other external reporting at the enterprise level.

(iii) Total costs associated with our ISO 14001:2004 EMS certification and carbon emissions 3rd party verification are minimal, totalling less than $75k annually.

61a-3 – Cap and trade schemes
(i) The introduction of legislation that could drive economic incentives or lead to the creation of robust new markets can be viewed as an opportunity by BMO Financial Group. This could result in additional revenues for BMO although to date there has been limited opportunities in North America as legislation is unclear and existing markets are very thin.

(ii) Our current position is to monitor the evolution of cap and trade legislation, primarily in North America, and assess the opportunities for participation in new emission trading markets when there is more certainty.

(iii) As a global trading organization, there would be costs associated with developing carbon trading capabilities (resources, systems, etc.) however the magnitude of these costs has not been defined at this point. The financial benefits associated have also not been defined at this point. Responsibility for managing this would lie with our Trading Products group.

61a-4 – Product efficiency regulations and standards
(i) Evolving product efficiency standards such as LEED or BOMA as well as updates to national building codes facilitates the more effective procurement (lease transactions) of energy efficient office space. As standards become more common place the financial implications are as follows; (a) the lease premiums once commanded by landlords for locating in these facilities are reduced as there is more supply (lessees have more options) and (b) the ongoing operating costs (lease/utilities costs) over the life of the lease would be lower. These buildings also tend to perform better from an occupant comfort perspective which may contribute to employee productivity, although this has not yet been measured.

(ii) BMO manages the procurement of additional building stock through a formal process which incorporates specific focus on quality standards such as LEED Gold (where appropriate). BMO also participates in a Commercial Building Energy Initiative in the greater Toronto area (BMO's head of real estate is co-chair) which brings together landlords and tenants for the purposes of improving energy efficiency and standards form a part of this ongoing initiative. We have also updated our internal design and construction standards to include performance specifications for the build out of office space in order to achieve additional energy reductions (e.g. 1 watt per square foot for lighting). These measures are expected to contribute to our 10% absolute emissions reduction goal.

(iii) There is no additional annual cost associated with our procurement practices as the incorporation of standards based procurement for leased or owned facilities is now embedded in our operating practices. We see the lease premiums once paid for occupancy of LEED or BOMA certified facilities decreasing as the supply expands and benefit from reduced operating expenses from energy efficiencies at the building infrastructure level. The energy efficiencies derived contribute to our absolute emissions reduction target and help to minimize our annual operating costs (approximately 1% of total operating costs associated with energy costs).

6.1c

Please describe the opportunities that are driven by changes in physical climate parameters

ID	Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact
61c-1	Other physical climate opportunities	As an organization that occupies mainly office space or smaller scale retail space, we are constantly looking for ways to take advantage of changes in physical climate parameters for our buildings. As we construct and retrofit facilities across the enterprise portfolio we attempt to take advantage of opportunities related to changes in natural weather elements. A specific example would include retrofitting our buildings to take advantage of "free cooling". Specifically we bring lower temperature outside air into the facility to relieve the electricity demand to cool indoor air (via base building chillers) and reduce operating costs. We also see more conventional building retrofits as ongoing opportunities to take advantage of changing conditions.	Reduced operational costs	Current	Direct	Likely	Low

6.1d

Please describe (i) the potential financial implications of the opportunity; (ii) the methods you are using to manage this opportunity; (iii) the costs associated with these actions

61c-1 – Other physical climate drivers
(i) We currently outsource facilities management activities in both Canada and the United States to third party professionals, the costs of which are not for public disclosure. A key aspect of these relationships is environmental sustainability management across the facilities managed. Energy performance for these facilities has been benchmarked (consumption intensity/m2) and 5 year capital improvement plans are in place to deal with specific actions and initiatives we can undertake to leverage ongoing energy related operating cost reduction opportunities. Annually we implement upgrades to building envelope (roof, windows, etc.), HVAC systems (unit replacements, heating/cooling zoning) and lighting retrofits (T12 to T8/T5 or LED). We expect the results of these activities to contribute to our annual emissions reductions targets.
(ii) In our office towers and other critical facilities (operations centres) we continue to actively assess building infrastructure for opportunities to upgrade equipment, retrofit for improved efficiency and refine operating processes to reduce our costs and overall emissions impacts. “Free cooling” is a practice that we have implemented in a number of our facilities across the network. In certain geographic areas, we have also completed bulk energy purchases, at the wholesale level, to proactively manage our costs in the face of rising fuel costs.
The costs associated with these actions are part of our ongoing business continuity planning and are not considered to be incremental.
(iii) Costs associated with these energy upgrade opportunities can amount to significant dollars (e.g. $2 - $4 million annually), dependent on the scope and volume of projects. We typically observe utility savings in the range of 15% - 20%, again dependent on the scope of the specific initiative. As we are continually focused on reducing ongoing operating costs, these activities form part of our existing infrastructure so no significant additional costs are required.

6.1e

Please describe the opportunities that are driven by changes in other climate-related developments

ID	Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact
61e-1	Changing consumer behaviour	As our retail customers seek ways to limit their impact on the environment, providing them with financial products that can assist in that way creates opportunities for us in the North American market. For example: - in Fiscal 2011, BMO introduced the Eco Smart Mortgage, a 5-year fixed closed mortgage at a market leading reduced rate, to reward customers for making smart choices for their home and the environment. We also offer our customers the option of full capability online banking eliminating the need for paper statements or hard copies of cheques.	New products/business services	Current	Direct	Virtually certain	Low
61e-2	Reputation	BMO attempts to maximize shareholder return and balance our commitments to financial performance, our customers, our employees, the environment and the communities where we live and work. We believe that our efforts to lead by example in measuring, managing, setting reductions to reduce our carbon impacts as well as being transparent about our climate change policies and practices, has positive impact on our reputation with customers and broader stakeholders.	Increased stock price (market valuation)	Current	Direct	Likely	Low
61e-3	Other drivers	BMO's action relative to climate change and its ongoing commitment to absolute carbon footprint reductions and carbon neutrality has had a positive impact on employee engagement. Our ongoing focus on energy efficiency initiatives (consumption reduction), investment in renewable energy and purchase of carbon offset credits is the underlying strategy supporting our carbon neutral achievement. We believe that our actions in this regard contribute to attracting new employees to the organization and retention of existing employees	Other: Increased employee engagement, attraction and retention	Current	Direct	Likely	Low-medium

6.1f

Please describe (i) the potential financial implications of the opportunity; (ii) the methods you are using to manage this opportunity; (iii) the costs associated with these actions

61e-1 - Changing consumer behaviour
(i) BMO recently introduced the BMO Eco Smart Mortgage, a 5-year fixed closed mortgage at a market leading reduced rate, to reward customers for making smart choices for their home and the environment. To qualify for the BMO Eco Smart Mortgage, the home must meet requirements outlined in the BMO Eco Smart Mortgage checklist as confirmed by a third party appraiser (or energy auditor) arranged by BMO. Facilitating behaviour changes by introducing new products incenting consumers to take action to reduce their own carbon footprint provides BMO with new revenue sources. BMO also offers two sustainable mutual funds, the BMO Sustainable Climate Class and the BMO Sustainable Opportunities Class. They provide exposure to climate and environmentally conscious technologies, products and services, as well as other sustainable themes, including healthy living, alternative energy and natural resources generating revenues for our Wealth Management Group.
(ii) The Eco Smart mortgage is managed by our retail mortgage products group as part of their regular activities. The sustainable mutual funds are managed within the Mutual Funds group normal activities and as such do not result in any additional cost to the organization.
(iii) No incremental costs for managing these activities. The financial impacts of this opportunity are proprietary information which we do not disclose.

61e-2 - Reputation
(i) It is difficult to quantify the financial impacts of our climate change and carbon management activities from a reputational perspective as there are clearly other factors that impact our share price. If our actions resonate with stakeholders and customers, this positive reputational impact could result in new customer attraction and contribute to increased revenues.

(ii) We transparently report our progress internally to personnel and externally to customers, shareholders and other stakeholders via medium such as CDP, our Annual Report, Sustainability Performance Report, Corporate Responsibility Report, external website and regular news releases as appropriate.

(iii) There are costs associated with our climate change activities and carbon management strategy however the marginal costs of these activities are not considered significant and now form part of our annual operating budget.

61e-3 – Other drivers
(i) BMO's actions with respect to climate change and our carbon neutrality commitment help foster and employee engagement and contributes to the retention of existing employees and attraction of new employees. Our HR group has provided feedback that new recruits are increasingly looking at the sustainability values of organizations when investigating their employment options. While a direct correlation to retention is not quantifiable, our ability to retain employees provides benefits to the organization which may include intellectual capital retention and hiring/training cost avoidance.
(ii) BMO has introduced a number of programs to raise awareness amongst employees and engage them in climate change activities, including but not limited to:
- Corporate intranet site specifically focused on BMO's environmental sustainability activities
- Environmental ambassadors program where employees volunteer to assist the environmental sustainability group to roll out tactical initiatives and provide feedback from the field
- BMO's participation in Earth Hour event annually as well as local initiatives across the corporation for Earth Day/Week
- Introduction of electronic pay advices for employees allowing them to opt out of paper statements

- Public transit pass program in select cities which provide for reduced cost of passes for employees and encourage the avoidance of transportation emissions (approximately 4,300 employees participate monthly)
- Quarterly “Clear Blue Skies Initiative” newsletter to employees focusing on current topics and applicability to employees
- Gradual conversion of our service vehicle fleet from conventional gas power to hybrids – currently 69% of our fleet is comprised of hybrids
- Climate change information contained within our Annual Report, Sustainability Report, Corporate Responsibility Report and external website

Carbon Neutrality has been achieved through a primary focus on consumption reduction activities, investments in renewable energy and the purchase of high quality carbon offset credits to fill the remaining gap. The Environmental Sustainability group within BMO has oversight for this program.

(iii) The annual operating budget for the Environmental Sustainability group includes the costs associated with activities to raise employee awareness and the management of our carbon neutrality commitment. One full time resource supports our employee engagement activities and another 1+ FTE manages the carbon emissions activities underpinning our carbon neutral achievement. The costs of purchasing renewable energy and carbon offsets annually range from $2 - $3 million annually. Environmental Ambassadors are volunteers and there are no additional costs for their efforts.

6.1g

Please explain why you do not consider your company to be exposed to opportunities driven by changes in regulation that have the potential to generate a substantive change in your business operations, revenue or expenditure

6.1h

Please explain why you do not consider your company to be exposed to opportunities driven by physical climate parameters that have the potential to generate a substantive change in your business operations, revenue or expenditure

6.1i

Please explain why you do not consider your company to be exposed to opportunities driven by changes in other climate-related developments that have the potential to generate a substantive change in your business operations, revenue or expenditure

Module: GHG Emissions Accounting, Energy and Fuel Use, and Trading [Investor]

Page: 7. Emissions Methodology

7.1

Please provide your base year and base year emissions (Scopes 1 and 2)

Base year	Scope 1 Base year emissions (metric tonnes CO2e)	Scope 2 Base year emissions (metric tonnes CO2e)
Mon 01 Jan 2007 - Mon 31 Dec 2007	25380.03	48236.88

7.2

Please give the name of the standard, protocol or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions

Please select the published methodologies that you use
The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)
ISO 14064-1

7.2a

If you have selected "Other", please provide details below

7.3

Please give the source for the global warming potentials you have used

Gas	Reference
CO2	IPCC Second Assessment Report (SAR - 100 year)
CH4	IPCC Second Assessment Report (SAR - 100 year)
N2O	IPCC Second Assessment Report (SAR - 100 year)
HFCs	IPCC Second Assessment Report (SAR - 100 year)

7.4

Please give the emissions factors you have applied and their origin; alternatively, please attach an Excel spreadsheet with this data

Fuel/Material/Energy	Emission Factor	Unit	Reference
Natural gas	50.61	Other: kg Co2e per GJ	GHG Protocol - Facilities - 2000
Distillate fuel oil No 2	73.91	Other: kg Co2e per GJ	GHG Protocol - Facilities - 2000
Motor gasoline	2382.20	Other: kg CO2 per m3	GHG Protocol - Mobile - 2000
Jet kerosene	2552.00	Other: kg CO2 per m3	GHG Protocol - Mobile - 2000
Other: Steam	.15	metric tonnes CO2e per metric tonne	CANMET Energy Diversification Laboratory - 2000
Distillate fuel oil No 2	70.77	Other: kg Co2e per GJ	GHG Protocol - Facilities - 2000
Other: Purchased Electricity - Australia	245.36	Other: kg Co2e per GJ	International Energy Agency (2010) - 2008
Other: Purchased Electricity - Barbados	201.20	Other: kg Co2e per GJ	GHG Protocol - Electricity - 2006
Other: Purchased Electricity - Brazil	24.68	Other: kg Co2e per GJ	International Energy Agency (2010) - 2008
Other: Purchased Electricity - China	206.93	Other: kg Co2e per GJ	International Energy Agency (2010) - 2008
Other: Purchased Electricity - France	22.98	Other: kg Co2e per GJ	International Energy Agency (2010) - 2008
Other: Purchased Electricity - India	268.95	Other: kg Co2e per GJ	International Energy Agency (2010) - 2008
Other: Purchased Electricity - Ireland	135.06	Other: kg Co2e per GJ	International Energy Agency (2010) - 2008

Fuel/Material/Energy	Emission Factor	Unit	Reference
Other: Purchased Electricity - Luxembourg	87.44	Other: kg Co2e per GJ	International Energy Agency (2010) - 2008
Other: Purchased Electricity - Mexico	122.21	Other: kg Co2e per GJ	International Energy Agency (2010) - 2008
Other: Purchased Electricity - Singapore	147.51	Other: kg Co2e per GJ	International Energy Agency (2010) - 2008
Other: Purchased Electricity - Switzerland	7.61	Other: kg Co2e per GJ	International Energy Agency (2010) - 2008
Other: Purchased Electricity - United Arab Emirates	233.90	Other: kg Co2e per GJ	International Energy Agency (2010) - 2008
Other: Purchased Electricity - United Kingdom	135.26	Other: kg Co2e per GJ	International Energy Agency (2010) - 2008
Other: Purchased Electricity - Alberta, Canada	235.23	Other: kg Co2e per GJ	Environment Canada (2012) - 2010
Other: Purchased Electricity - British Columbia, Canada	8.15	Other: kg Co2e per GJ	Environment Canada (2012) - 2010
Other: Purchased Electricity - Manitoba, Canada	0.84	Other: kg Co2e per GJ	Environment Canada (2012) - 2010
Other: Purchased Electricity - New Brunswick, Canada	141.33	Other: kg Co2e per GJ	Environment Canada (2012) - 2010
Other: Purchased Electricity - Newfoundland, Canada	5.58	Other: kg Co2e per GJ	Environment Canada (2012) - 2010
Other: Purchased Electricity - Northwest Territories, Canada	106.39	Other: kg Co2e per GJ	Environment Canada (2012) - 2010
Other: Purchased Electricity - Nova Scotia, Canada	223.30	Other: kg Co2e per GJ	Environment Canada (2012) - 2010
Other: Purchased Electricity - Ontario, Canada	36.43	Other: kg Co2e per GJ	Environment Canada (2012) - 2010
Other: Purchased Electricity - Prince Edward Island, Canada	0.83	Other: kg Co2e per GJ	Environment Canada (2012) - 2010
Other: Purchased Electricity - Quebec, Canada	0.57	Other: kg Co2e per GJ	Environment Canada (2012) - 2010
Other: Purchased Electricity - Saskatchewan, Canada	213.07	Other: kg Co2e per GJ	Environment Canada (2012) - 2010
Other: Purchased Electricity - Yukon, Canada	13.10	Other: kg Co2e per GJ	Environment Canada (2012) - 2010
Other: Purchased Electricity - Arizona, United States	149.18	Other: kg Co2e per GJ	US EPA (2010) - 2007
Other: Purchased Electricity - California, United States	71.54	Other: kg Co2e per GJ	US EPA (2010) - 2007

Fuel/Material/Energy	Emission Factor	Unit	Reference
Other: Purchased Electricity - Colorado, United States	228.79	Other: kg Co2e per GJ	US EPA (2010) - 2007
Other: Purchased Electricity - Connecticut, United States	87.66	Other: kg Co2e per GJ	US EPA (2010) - 2007
Other: Purchased Electricity - Florida, United States	159.16	Other: kg Co2e per GJ	US EPA (2010) - 2007
Other: Purchased Electricity - Georgia, United States	177.69	Other: kg Co2e per GJ	US EPA (2010) - 2007
Other: Purchased Electricity - Illinois, United States	140.18	Other: kg Co2e per GJ	US EPA (2010) - 2007
Other: Purchased Electricity - Indiana, United States	259.87	Other: kg Co2e per GJ	US EPA (2010) - 2007
Other: Purchased Electricity - Iowa, United States	225.62	Other: kg Co2e per GJ	US EPA (2010) - 2007
Other: Purchased Electricity - Kansas, United States	217.99	Other: kg Co2e per GJ	US EPA (2010) - 2007
Other: Purchased Electricity - Maryland, United States	169.53	Other: kg Co2e per GJ	US EPA (2010) - 2007
Other: Purchased Electricity - Massachusetts, United States	151.89	Other: kg Co2e per GJ	US EPA (2010) - 2007
Other: Purchased Electricity - Michigan, United States	179.53	Other: kg Co2e per GJ	US EPA (2010) - 2007
Other: Purchased Electricity - Minnesota, United States	192.95	Other: kg Co2e per GJ	US EPA (2010) - 2007
Other: Purchased Electricity - Missouri, United States	225.84	Other: kg Co2e per GJ	US EPA (2010) - 2007
Other: Purchased Electricity - Nevada, United States	146.86	Other: kg Co2e per GJ	US EPA (2010) - 2007
Other: Purchased Electricity - New Hampshire, United States	84.26	Other: kg Co2e per GJ	US EPA (2010) - 2007
Other: Purchased Electricity - New Jersey, United States	88.61	Other: kg Co2e per GJ	US EPA (2010) - 2007
Other: Purchased Electricity - New York, United States	95.09	Other: kg Co2e per GJ	US EPA (2010) - 2007
Other: Purchased Electricity - North Carolina, United States	156.47	Other: kg Co2e per GJ	US EPA (2010) - 2007

Fuel/Material/Energy	Emission Factor	Unit	Reference
Other: Purchased Electricity - Ohio, United States	229.00	Other: kg Co2e per GJ	US EPA (2010) - 2007
Other: Purchased Electricity - Pennsylvania, United States	153.05	Other: kg Co2e per GJ	US EPA (2010) - 2007
Other: Purchased Electricity - Texas, United States	165.35	Other: kg Co2e per GJ	US EPA (2010) - 2007
Other: Purchased Electricity - Utah, United States	245.14	Other: kg Co2e per GJ	US EPA (2010) - 2007
Other: Purchased Electricity - Virginia, United States	144.25	Other: kg Co2e per GJ	US EPA (2010) - 2007
Other: Purchased Electricity - Washington, United States	32.85	Other: kg Co2e per GJ	US EPA (2010) - 2007
Other: Purchased Electricity - Wisconsin, United States	201.66	Other: kg Co2e per GJ	US EPA (2010) - 2007
Other: HFC-134A	1300	metric tonnes CO2e per metric tonne	IPCC - 2000
Other: R-410A	1725	metric tonnes CO2e per metric tonne	IPCC - 2000

Page: 8. Emissions Data - (1 Nov 2010 - 31 Oct 2011)

8.1

Please select the boundary you are using for your Scope 1 and 2 greenhouse gas inventory

Financial control

8.2a

Please provide your gross global Scope 1 emissions figure in metric tonnes CO2e

21150.52

8.2b

Please provide your gross global Scope 1 emissions figures in metric tonnes CO2e - Part 1 breakdown

Boundary	Gross global Scope 1 emissions (metric tonnes CO2e)	Comment

8.2c

Please provide your gross global Scope 1 emissions figures in metric tonnes CO2e - Part 1 Total

Gross global Scope 1 emissions (metric tonnes CO2e) – Part 1 Total	Comment

8.2d

Please provide your gross global Scope 1 emissions figures in metric tonnes CO2e - Part 2

Boundary	Gross global Scope 1 emissions (metric tonnes CO2e)	Comment

8.3a

Please provide your gross global Scope 2 emissions figure in metric tonnes CO2e

65602.89

8.3b

Please provide your gross global Scope 2 emissions figures in metric tonnes CO2e - Part 1 breakdown

Boundary	Gross global Scope 2 emissions (metric tonnes CO2e)	Comment

8.3c

Please provide your gross global Scope 2 emissions figures in metric tonnes CO2e - Part 1 Total

Gross global Scope 2 emissions (metric tonnes CO2e) - Total Part 1	Comment

8.3d

Please provide your gross global Scope 2 emissions figures in metric tonnes CO2e - Part 2

Boundary	Gross global Scope 2 emissions (metric tonnes CO2e) - Other operationally controlled entities, activities or facilities	Comment

8.4

Are there are any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions which are not included in your disclosure?

8.4a

Please complete the table

Reporting Entity	Source	Scope	Explain why the source is excluded

8.4

Are there are any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions which are not included in your disclosure?

No

8.4a

Please complete the table

Source	Scope	Explain why the source is excluded

8.5

Please estimate the level of uncertainty of the total gross global Scope 1 and Scope 2 figures that you have supplied and specify the sources of uncertainty in your data gathering, handling, and calculations

Scope 1 emissions: Uncertainty range	Scope 1 emissions: Main sources of uncertainty	Scope 1 emissions: Please expand on the uncertainty in your data	Scope 2 emissions: Uncertainty range	Scope 2 emissions: Main sources of uncertainty	Scope 2 emissions: Please expand on the uncertainty in your data
More than 2% but less than	Data Gaps Metering/	We consider the main sources of uncertainty with respect to our data as follows: Data	More than 2% but less than	Data Gaps Metering/	We consider the main sources of uncertainty with respect to our data as follows: Data

Scope 1 emissions: Uncertainty range	Scope 1 emissions: Main sources of uncertainty	Scope 1 emissions: Please expand on the uncertainty in your data	Scope 2 emissions: Uncertainty range	Scope 2 emissions: Main sources of uncertainty	Scope 2 emissions: Please expand on the uncertainty in your data
or equal to 5%	Measurement Constraints Data Management	gathering/management: 1) Completeness – we still estimate a percentage of our Scope 1 emissions due to the lack of available data (data gaps & metering/measurement constraints). Consumption data for Scope 1 facilities/transportation equipment emissions is gathered internally by BMO personnel or via facilities managers (for facilities). 2) Accuracy - there is a degree of risk that data provided by 3rd party providers (facilities managers) is not completely accurate. We rely on the internal controls implemented by our facilities managers and periodically audit their processes to provide a reasonable level of assurance regarding their activities. Data handling: 1) Collection and transposition of data from original utility invoices to energy recording systems and/or consolidation spreadsheets also introduces the risk of error. For internally gathered information, we task one individual to gather and consolidate the monthly data to a spreadsheet record with verification checks performed by separate individuals on a spot check basis. We focus the spot checks on those facilities with the largest consumption in order to mitigate any significant misstatements. We request the same processes be followed for information provided by our facilities managers (e.g. where they have responsibility for utility bill handling for our owned facilities). We attempt to mitigate transposition risk when uploading to the GHG:ID Tool by using automated methods to perform the data loading activities and use	or equal to 5%	Measurement Constraints Data Management	gathering/management: 1) Completeness – we still estimate a percentage of our Scope 2 emissions due to the lack of available data (data gaps & metering/measurement constraints). Consumption data for Scope 2 facilities emissions is gathered internally by BMO personnel or via facilities managers. 2) Accuracy - there is a degree of risk that data provided by 3rd party providers (facilities managers) is not completely accurate. We rely on the internal controls implemented by our facilities managers and periodically audit their processes to provide a reasonable level of assurance regarding their activities. Data handling: 1) Collection and transposition of data from original utility invoices to energy recording systems and/or consolidation spreadsheets also introduces the risk of error. For internally gathered information, we task one individual to gather and consolidate the monthly data to a spreadsheet record with verification checks performed by separate individuals on a spot check basis. We focus the spot checks on those facilities with the largest consumption in order to mitigate any significant misstatements. We request the same processes be followed for information provided by our facilities managers (e.g. where they have responsibility for utility bill handling for our owned facilities). We attempt to mitigate transposition risk when uploading to the GHG:ID Tool by using automated methods to perform the data loading activities and use check totals, comparing before and after.

Scope 1 emissions: Uncertainty range	Scope 1 emissions: Main sources of uncertainty	Scope 1 emissions: Please expand on the uncertainty in your data	Scope 2 emissions: Uncertainty range	Scope 2 emissions: Main sources of uncertainty	Scope 2 emissions: Please expand on the uncertainty in your data
		check totals, comparing before and after. Data collected from across the enterprise and from 3rd party providers is populated in a data collection template. Any gaps requiring estimation are identified during this process. The populated data collection template is then loaded into the GHG:ID Tool where data integrity checks are completed (facility counts, record counts and consumption total checks) to ensure that the data has been loaded consistently from one program to another. For internally developed spreadsheet driven calculations, we mitigate these risks by segregating the responsibilities for creation and verification between separate individuals.			Data collected from across the enterprise and from 3rd party providers is populated in a data collection template. Any gaps requiring estimation are identified during this process. The populated data collection template is then loaded into the GHG:ID Tool where data integrity checks are completed (facility counts, record counts and consumption total checks) to ensure that the data has been loaded consistently from one program to another. For internally developed spreadsheet driven calculations, we mitigate these risks by segregating the responsibilities for creation and verification between separate individuals.

8.6

Please indicate the verification/assurance status that applies to your Scope 1 emissions

Verification or assurance complete

8.6a

Please indicate the proportion of your Scope 1 emissions that are verified/assured

More than 90% but less than or equal to 100%

8.6b

Please provide further details of the verification/assurance undertaken, and attach the relevant statements

Level of verification or assurance	Relevant verification standard	Relevant statement attached
Reasonable assurance	ISO14064-3	Verification statement attached - BMO Emissions Verification Fiscal 2011 (Morrison Hershfield).pdf Please note that the verification covers our fiscal year November 1, 2010 through October 31, 2011.

8.7

Please indicate the verification/assurance status that applies to your Scope 2 emissions

Verification or assurance complete

8.7a

Please indicate the proportion of your Scope 2 emissions that are verified/assured

More than 90% but less than or equal to 100%

8.7b

Please provide further details of the verification/assurance undertaken, and attach the relevant statements

Level of verification or assurance	Relevant verification standard	Relevant statement attached
Reasonable assurance	ISO14064-3	Verification statement attached - BMO Emissions Verification Fiscal 2011 (Morrison Hershfield).pdf Please note that the verification covers our fiscal year November 1, 2010 through October 31, 2011.

8.8

Are carbon dioxide emissions from the combustion of biologically sequestered carbon (i.e. carbon dioxide emissions from burning biomass/biofuels) relevant to your company?

No

8.8a

Please provide the emissions in metric tonnes CO2e

Attachments

https://www.cdproject.net/Sites/2012/17/1417/Investor CDP 2012/Shared Documents/Attachments/InvestorCDP2012/8.EmissionsData(1Nov2010-31Oct2011)/BMO Emissions Verification Fiscal 2011 (Morrison Hershfield).pdf

Page: 9. Scope 1 Emissions Breakdown - (1 Nov 2010 - 31 Oct 2011)

9.1

Do you have Scope 1 emissions sources in more than one country or region (if covered by emissions regulation at a regional level)?

Yes

9.1a

Please complete the table below

Country	Scope 1 metric tonnes CO2e
Canada	12928.42
United States of America	8222.10

9.2

Please indicate which other Scope 1 emissions breakdowns you are able to provide (tick all that apply)

By business division
By facility
By GHG type
By activity

9.2a

Please break down your total gross global Scope 1 emissions by business division

Business Division	Scope 1 metric tonnes CO2e
Bank of Montreal	13024.51
Harris NA	8126.01

9.2b

Please break down your total gross global Scope 1 emissions by facility

Facility	Scope 1 metric tonnes CO2e
Retail Facilities (Branches, ABMs)	12333.35
Office Facilities	3611.73
Special Purpose Facilities (Operations Centres, Data Centres, Learning Centres)	3539.39
Transportation Equipment	1666.05

9.2c

Please break down your total gross global Scope 1 emissions by GHG type

GHG type	Scope 1 metric tonnes CO2e
CH4	38.38
N2O	19.34
CO2	20873.17
HFCs	219.63

9.2d

Please break down your total gross global Scope 1 emissions by activity

Activity	Scope 1 metric tonnes CO2e
Stationary combustion (facilities)	19264.84
Mobile combustion (transport)	1666.05
Fugitive emissions (HFCs - facilities)	219.63

Page: 10. Scope 2 Emissions Breakdown - (1 Nov 2010 - 31 Oct 2011)

10.1

Do you have Scope 2 emissions sources in more than one country or region (if covered by emissions regulation at a regional level)?

Yes

10.1a

Please complete the table below

Country	Scope 2 metric tonnes CO2e
Canada	20811.55
United States of America	44791.34

10.2

Please indicate which other Scope 2 emissions breakdowns you are able to provide (tick all that apply)

By business division
By facility
By activity

10.2a

Please break down your total gross global Scope 2 emissions by business division

Business division	Scope 2 metric tonnes CO2e
Bank of Montreal	20811.55
Harris NA	44791.34

10.2b

Please break down your total gross global Scope 2 emissions by facility

Facility	Scope 2 metric tonnes CO2e
Retail Facilities (Branches, ABMs)	49356.24
Office Facilities	4998.75
Special Purpose Facilities (Operations Centres, Data Centres, Learning Centres)	11247.90

10.2c

Please break down your total gross global Scope 2 emissions by activity

Activity	Scope 2 metric tonnes CO2e
Stationary combustion (facilities)	65602.89

Page: 11. Emissions Scope 2 Contractual

11.1

Do you consider that the grid average factors used to report Scope 2 emissions in Question 8.3 reflect the contractual arrangements you have with electricity suppliers?

Yes

11.1a

You may report a total contractual Scope 2 figure in response to this question. Please provide your total global contractual Scope 2 GHG emissions figure in metric tonnes CO2e

11.1b

Explain the basis of the alternative figure (see guidance)

11.2

Has your organization retired any certificates, e.g. Renewable Energy Certificates, associated with zero or low carbon electricity within the reporting year or has this been done on your behalf?

Yes

11.2a

Please provide details including the number and type of certificates

Type of certificate	Number of certificates	Comments
Renewable Energy Certificates	115213	For the reporting period, BMO Financial Group has purchased a cumulative total of 23,812,740 kwh of renewable electricity (23,813 RECs) in Canada from energy retailer - Bullfrog Power Inc. The RECs represent power from EcoLogo-certified wind and low-impact hydro generators. BMO has thus far deployed this renewable energy in retail branches in the provinces of Ontario, British Columbia, Alberta, Nova Scotia, New Brunswick and Prince Edward Island. The Renewable Energy Certificates associated with these purchases have been retired as per the legal contract between BMO Financial Group (legal entity Bank of Montreal) and Bullfrog Power Inc. The current contract runs for a 3 year term and provides assurance that RECs will only be retired and will not be sold or transferred by Bullfrog Power Inc. to any party. In the USA, BMO Financial Group (Harris N.A subsidiary) has purchased a cumulative total of 91,400,000 kwh of renewable electricity (91,400 RECs) from NextEra Energy Power Marketing. The RECs represent power generated from wind turbines. The Renewable Energy Certificates associated with these purchases have been retired as per the legal contract between BMO Financial Group (legal entity Harris N.A.) and NextEra Energy Power Marketing. The current contract runs for a 3 year term and provides assurance that RECs will only be retired and will not be sold or transferred by NextEra to any party.

Page: 12. Energy

12.1

What percentage of your total operational spend in the reporting year was on energy?

More than 0% but less than or equal to 5%

12.2

Please state how much fuel, electricity, heat, steam, and cooling in MWh your organization has consumed during the reporting year

Energy type	MWh
Fuel	109045.45
Electricity	207578.26
Heat	0.00
Steam	983.36
Cooling	0.00

12.3

Please complete the table by breaking down the total "Fuel" figure entered above by fuel type

Fuels	MWh
Natural gas	94934.18
Distillate fuel oil No 2	7633.93
Jet kerosene	3373.27
Motor gasoline	3104.07

Page: 13. Emissions Performance

13.1

How do your absolute emissions (Scope 1 and 2 combined) for the reporting year compare to the previous year?

Increased

13.1a

Please complete the table

Reason	Emissions value (percentage)	Direction of change	Comment
Emissions reduction activities	3.76	Decrease	The majority of the decrease (approximately 89%) is attributed to Scope 1 & Scope 2 emissions reduction activities relative to energy consumed within real estate facilities. Real estate related emissions reduction activities focused primarily on lighting retrofits, building envelope upgrades and HVAC equipment retrofits/upgrades. The balance of the decrease was the result of lower Scope 1 transportation assets emissions relating to our service fleet operations (more hybrid vehicles).
Acquisitions	81.14	Increase	In July, 2011 we completed the M&I Bank acquisition in the United States which increased our real estate footprint significantly. Approximately 3.5 million square feet of “owned” facilities were acquired and while part of our inventory for only 4 months, the impact on absolute emissions is significant. In last year’s report we recorded the acquisition of AMCORE Bank in the United States by BMO Financial Group. The acquisition was effective April 23, 2010. With approximately 6 months emissions recorded in 2010, and the full year’s impact recorded in 2011, we have captured the difference as part of our explanation of the change for this year’s report.
Change in output	.17	Decrease	The net decrease reported reflects the impacts of owned facilities open for the full year in 2010 and closed in 2011, as well as those owned facilities that were not in our inventory in 2010 and opened in 2011.
Other: Change in Emissions Factors	4.47	Increase	CDP 2011 submission (fiscal 2010 data) referenced the 2008 published subregional (Provincial) electricity emissions factors for Canada. This year’s submission (fiscal 2011 data) references the 2010 published subregional (Provincial) electricity emissions factors for Canada. We have isolated the impacts of the change in emissions factors as a contributing factor for the overall change in Scope 2 emissions. CDP 2011 submission (fiscal 2010 data) referenced US-EPA 2007 published subregional (State) electricity emissions factors for the United States. This year’s submission (fiscal 2011 data) references eGRID 2010 Version 1.1 electricity factors for the United States (based on electricity generation data from 2007) . We have switched to eGRID factors based on published guidance from the World Resources Institute/Greenhouse Gas Protocol. We have isolated the impacts of the change in emissions factors as a contributing factor for the overall change in Scope 2 emissions.
Other: Data Corrections	4.41	Increase	The improvement in our processes and data capture is an ongoing activity. For those Scope 1 or Scope 2 emissions where we have identified corrections necessary to previously reported data, these have been incorporated. In some instances, we may have estimated data in the prior year and now have the actual consumption data available for the current year – thereby contributing to a portion of this reported change. The

Reason	Emissions value (percentage)	Direction of change	Comment
			increase shown is a net amount for all updates captured.
Other: Weather	13.90	Increase	While our GHG Emissions calculation tool does not offer the ability to calculate weather specific impacts, we attribute the remaining difference (net change) to the weather related impacts on our Scope 1 & Scope 2 emissions.

13.2

Please describe your gross combined Scope 1 and 2 emissions for the reporting year in metric tonnes CO2e per unit currency total revenue

Intensity figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Reason for Change
0.0000063241	metric tonnes CO2e	unit total revenue	18.96	Increase	Revenues increased 12.35% in 2011 versus 2010 as BMO continues to grow its business. Absolute emissions (tCO2e - Scope 1 & Scope 2) increased by 33.66% over the same period, largely due to the July, 2011 M&I Bank acquisition by BMO in the United States. While emissions relative to the existing BMO inventory of facilities (excluding acquired facilities) showed a decrease, the added emissions from the M&I Bank acquisition are the prime reason for the increase in the intensity figure. While this information has been provided, as requested, we don't believe that this is the most relevant indicator. We consider the relativity measures of tCO2e per employee and tCO2e per m2 of premises occupied (see Q13.3 and Q13.4 below) as more meaningful.

13.3

Please describe your gross combined Scope 1 and 2 emissions for the reporting year in metric tonnes CO2e per full time equivalent (FTE) employee

Intensity figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Reason for Change
1.8388	metric tonnes CO2e	FTE Employee	7.50	Increase	Number of employees increased by 9,233 or 24.3% (2011 vs. 2010) with acquisitional growth being the primary reason. Absolute emissions (tCO2e - Scope 1 & Scope 2) increased by 21,846 or 33.7% over the same period, again largely due to the M&I Bank acquisition. We are just beginning to investigate the opportunities associated with reducing emissions for the real estate facilities acquired as well as synergies related to personnel added via the M&I Bank acquisition.

13.4

Please provide an additional intensity (normalized) metric that is appropriate to your business operations

Intensity figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Reason for Change
.1014	metric tonnes CO2e	square meter	2.68	Decrease	Intensity measure relates to Scope 1+2+3 real estate based emissions per square meter of real estate occupied. Scope 3 real estate based emissions relate to our occupancy of leasehold premises as defined by our "Financial Control" reporting boundary.
.3232		Other: FTE Employee	19.41	Decrease	Intensity measure relates to tCO2e Scope 1+3 transportation for business purposes (air/ground) emissions per FTE employee. Number of employees increased by 9,233 or 24.3% (2011 vs. 2010) with acquisitional growth being the primary reason. Transportation for business purposes emissions (tCO2e) remained flat for 2011 versus 2010, notwithstanding the inclusion of the acquisitional impacts.

Page: 14. Emissions Trading

14.1

Do you participate in any emission trading schemes?

No, and we do not currently anticipate doing so in the next two years

14.1a

Please complete the following table for each of the emission trading schemes in which you participate

Scheme name	Period for which data is supplied	Allowances allocated	Allowances purchased	Verified emissions in metric tonnes CO2e	Details of ownership

14.1b

What is your strategy for complying with the schemes in which you participate or anticipate participating?

14.2

Has your company originated any project-based carbon credits or purchased any within the reporting period?

Yes

14.2a

Please complete the following table

Credit origination or credit purchase	Project type	Project identification	Verified to which standard	Number of credits (metric tonnes of CO2e)	Number of credits (metric tonnes CO2e): Risk adjusted volume	Credits retired	Purpose e.g. compliance
Credit Purchase	Landfill gas	Greening Canada Fund - City of Guelph (COG)	Other: ISO 14064-2	31922	31922	Yes	Voluntary Offsetting
Credit Purchase	Methane avoidance	Greening Canada Fund - St. Felicien (SF)	Other: ISO 14064-2	28307	28307	Yes	Voluntary Offsetting
Credit Purchase	Biomass energy	Greening Canada Fund - Merom Farms Ltd. (MRM)	Other: ISO 14064-2	11538	11538	Yes	Voluntary Offsetting
Credit Purchase	Energy efficiency: industry	Greening Canada Fund - Commission Scolaire Marguerite-Bourgeoys (CSMB)	Other: ISO 14064-2	2261	2261	Yes	Voluntary Offsetting
Credit Purchase	Energy efficiency: industry	Greening Canada Fund - Toronto District School Board (TDSB)	Other: ISO 14064-2	30999	30999	Yes	Voluntary Offsetting
Credit Purchase	Energy efficiency: industry	Greening Canada Fund - University of Alberta (UOA)	Other: ISO 14064-2	19530	19530	Yes	Voluntary Offsetting
Credit Purchase	Energy efficiency: industry	Greening Canada Fund - Les Soeurs de l'Assomption de Sainte-Vierge (SASV)	Other: ISO 14064-2	2810	2810	Yes	Voluntary Offsetting
Credit Purchase	Energy efficiency: industry	Greening Canada Fund - Commission Scolaire Pointe-de-l'Ile (CSPI)	Other: ISO 14064-2	3361	3361	Yes	Voluntary Offsetting

Page: 2012-Investor-Scope 3 Emissions

15.1

Please provide data on sources of Scope 3 emissions that are relevant to your organization

Sources of Scope 3 emissions	metric tonnes CO2e	Methodology	If you cannot provide a figure for emissions, please describe them

Sources of Scope 3 emissions	metric tonnes CO2e	Methodology	If you cannot provide a figure for emissions, please describe them
Fuel- and energy-related activities (not included in Scopes 1 or 2)	100960.07	Based on our reporting boundary (Financial Control) and contractual obligations per leased facilities (per GHG Protocol Standard), emissions from leased premises have been classified as Scope 3. The emissions relating to fuel combusted and purchased electricity used in our leased facilities (Scope 1 & Scope 2 emissions of the lessor), form a significant portion of our total Scope 3 emissions reported. For the past five years BMO has used a customized version of ICF International's GHG:ID Tool for the calculation of greenhouse gas emissions. The ICF International GHG:ID Tool for BMO is fully compliant with both: "The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)" developed by the World Resources Institute and the World Business Council for Sustainable Development ("the GHG Protocol") and; ISO 14064 Part 1: Greenhouse gases — Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals. At our request, consumption data is provided annually by the landlord/facilities managers for the facilities occupied by BMO Financial Group. In those instances where check meters are installed, actual consumption information for fuels/electricity is used to reflect our actual consumption. In the absence of this specific level of information, we receive consumption information for the entire facility and based on the area occupied by BMO Financial Group, we determine our prorated portion for each of the fuels/electricity consumed. We also ask for confirmation from our landlords that the information provided accurately reflects the consumption figures provided and for a number of facilities, we receive the actual source utility data. We retain a detailed calculation worksheet for each of the leased properties where information has been gathered in this manner. The consumption data provided is routinely reviewed for intensity (consumption/square foot) to identify any obvious anomalies for further investigation. Finally, the	

Sources of Scope 3 emissions	metric tonnes CO2e	Methodology	If you cannot provide a figure for emissions, please describe them
		consumption information is then input to the ICF International GHG:ID tool to calculate the relevant emissions.	
Business travel	13583.48	As a financial institution, our most significant Scope 3 emissions relating to employee business travel include the following: commercial air, ground travel (incl. employees' occasional use of personal vehicles for business, rental vehicles, and rail). For the past five years BMO has used a customized version of ICF International's GHG:ID Tool for the calculation of greenhouse gas emissions. The ICF International GHG:ID Tool for BMO is fully compliant with both: "The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)" developed by the World Resources Institute and the World Business Council for Sustainable Development ("the GHG Protocol") and; "ISO 14064 Part 1: Greenhouse gases — Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals". For transportation data, we utilize the following data collection methodology: Commercial Air Travel data for business purposes is provided by our preferred travel supplier on an annual basis. The data provided consists of one-way flight segment distances and the number of instances of each segment travelled. This information is used to calculate the relevant emissions within the ICF International GHG:ID Tool for short haul, medium haul and long haul flights. Ground Travel 1) Employee travel for business purposes using personal vehicles – all data is captured via our internal expense reimbursement system as claims are submitted. Annually we extract this data and use kilometres travelled and a proxy for vehicle type (mid-sized automobile efficiency) within the ICF International GHG:ID Tool for calculation of emissions. 2) Rail travel data for business purposes is provided directly by our rail service suppliers on an annual basis. The data provided consists of one-	

Sources of Scope 3 emissions	metric tonnes CO2e	Methodology	If you cannot provide a figure for emissions, please describe them
		way rail segment distances and the number of instances of each segment travelled. This information is used to calculate the relevant emissions within the ICF International GHG:ID Tool. 3) Rental vehicles – data is provided by our two preferred suppliers on an annual basis. The data consists of vehicle type and total distance travelled. The data combined with a proxy for vehicle type (mid-sized automobile efficiency) is used within the ICF International GHG:ID Tool for calculation of the relevant emissions. Emissions are reported as tCO2e.	
Waste generated in operations	649.27	BMO Financial Group is indirectly responsible for the emissions created by the solid waste generated from our operations. In 2011, we measured and reporting the emissions resulting from solid waste generated from 10 of our owned office buildings. These buildings represent 3.9 million square feet of real estate. In future years, we expect to expand the scope of our review. To gather the raw waste data, we contracted third party providers to conduct waste audits at selected owned facilities (as required by regulation in Ontario) and also secured prorated data from landlords for our tenancy in leased facilities. The content of the waste audit reports and landlord provided data allowed to detail the break-down of waste to landfill/recycling. The waste to landfill data was annualized and input to the ICF International GHG:ID Tool to calculate the resulting emissions. The emission factor used by the GHG:ID Tool is specifically calibrated for corporate GHG inventories, based on the EPA published WaRM tool. The mixed Municipal Solid Waste factor incorporates all emissions associated with transporting the waste, dumping it in a landfill, degrading and releasing methane as it decomposes in anaerobic conditions, and finally the residual biogenic carbon "credit" for the biogenic carbon that gets stored in the landfill long term. The factor accounts for not only methane, but also CO2 as well (all converted and	

Sources of Scope 3 emissions	metric tonnes CO2e	Methodology	If you cannot provide a figure for emissions, please describe them
		expressed as the CO2 equivalent factor).	
Downstream transportation and distribution			BMO Financial Group is indirectly responsible for the emissions created by the distribution of our product information to customers. This includes; transportation emissions relating to the delivery of paper statements, Annual Reports, Corporate Responsibility Reports and other paper correspondence with customers. The lack of readily available information is the prime reason we do not currently report on emissions from this source.
Purchased goods & services			BMO Financial Group's direct supplier emissions result from our purchase of goods and services including: - technology/telecommunications equipment (personal computers, servers, copiers, printers, routers, switches, etc.), - office supplies (e.g. pens, paper, etc.), - furniture and fixtures for premises (desks, chairs, lighting, building materials, etc.), - consulting services as provided by third parties and, - marketing and advertising materials. The primary reason BMO Financial Group has not focused on the specific measurement of emissions related to its supply chain is due to the lack of available source data. Since early 2008 we have employed a Sustainable Procurement questionnaire as part our competitive bid process (supply chain focus) and have scored the results to these questions as part of overall decision process. While this process does not provide results that would allow us to quantitatively answer this question, it has proved beneficial in affecting supplier behaviour for a number of our key relationships.
Employee commuting			BMO Financial Group is indirectly responsible for the emissions created by employees commuting to and from our offices. The lack of readily available information about their commuting modes and travel distances is the prime reason we do not currently report on emissions from this source.

15.2

Please indicate the verification/assurance status that applies to your Scope 3 emissions

Verification or assurance complete

15.2a

Please indicate the proportion of your Scope 3 emissions that are verified/assured

More than 90% but less than or equal to 100%

15.2b

Please provide further details of the verification/assurance undertaken, and attach the relevant statements

Level of verification or assurance	Relevant verification standard	Relevant statement attached
Reasonable assurance	ISO14064-3	Verification statement attached - BMO Emissions Verification Fiscal 2011 (Morrison Hershfield).pdf Please note that the verification covers our fiscal year November 1, 2010 through October 31, 2011.

15.3

Are you able to compare your Scope 3 emissions for the reporting year with those for the previous year for any sources?

Yes

15.3a

Please complete the table

Sources of Scope 3 emissions	Reason for change	Emissions value (percentage)	Direction of change	Comment
Fuel- and energy-related activities (not included in Scopes 1 or 2)	Emissions reduction activities	2.52	Decrease	The decrease is attributed to fuel and energy related reductions in our leased real estate facilities (Scope 1 & Scope 2 emissions of the lessor). Reduction activities focused primarily on lighting retrofits, building envelope upgrades, HVAC equipment retrofits/upgrades and a building automation pilot.
Business travel	Emissions reduction activities	4.82	Decrease	Ongoing focus on utilizing technologies such as video conferencing and teleconferencing to avoid physical travel via ground/air for business purposes.
Fuel- and energy-related activities (not included in Scopes 1 or 2)	Acquisitions	41.52	Increase	In July, 2011 BMO completed the M&I Bank acquisition in the United States which increased our real estate footprint significantly. Approximately 1.5 million square feet of “leased” facilities were acquired and while part of our inventory for only four months, the impact on absolute emissions is significant. Also included as part of the net increase are emissions related to business travel which were identified as specific to the acquisition.
Fuel- and energy-related activities (not included in Scopes 1 or 2)	Other: Changes in emissions factors	48.28	Increase	For leasehold facilities - CDP 2011 submission (fiscal 2010 data) referenced the 2008 published subregional (Provincial) electricity emissions factors for Canada. This year’s submission (fiscal 2011 data) references the 2010 published subregional (Provincial) electricity emissions factors for Canada. We have isolated the impacts of the change in emissions factors as a contributing factor for the overall change in Scope 3 emissions (included in scope 3 for leasehold facilities). For leasehold facilities - CDP 2011 submission (fiscal 2010 data) referenced US-EPA 2007 published subregional (State) electricity emissions factors for the United States. This year’s submission (fiscal 2011 data) references eGRID 2010 Version 1.1 electricity factors for the United States (based on electricity generation data from 2007) . We have switched to eGRID factors based on published guidance from the World Resources Institute/Greenhouse Gas Protocol. We have isolated the impacts of the change in emissions factors as a contributing factor for the overall change in Scope 3 emissions (included in scope 3 for leasehold facilities).
Fuel- and energy-related activities (not included in Scopes 1 or 2)	Change in output	4.58	Increase	The net increase reported reflects the impacts of leasehold facilities occupied for the full year in 2010 and vacated in 2011, as well as those leasehold facilities that were not in our inventory in 2010 and occupied in 2011.
Fuel- and energy-related activities (not included in Scopes 1	Other: Data Corrections	7.95	Increase	The improvement in our processes and data capture is an ongoing activity. For those Scope 3 emissions (for Leasehold facilities) where we have identified corrections necessary to previously reported data, these have been incorporated. In some instances,

Sources of Scope 3 emissions	Reason for change	Emissions value (percentage)	Direction of change	Comment
or 2)				we may have estimated data in the prior year and now have the actual consumption data available for the current year – thereby contributing to a portion of this reported change. The increase shown is a net amount for all updates captured.
Fuel- and energy-related activities (not included in Scopes 1 or 2)	Other: Weather related impacts	5.01	Increase	For leasehold facilities - While our GHG Emissions calculation tool does not offer the ability to calculate weather specific impacts, we attribute the remaining difference (net change) to the weather related impacts on our Fuel and energy related activities (not included in Scope 1 or 2) emissions.

Attachments

https://www.cdproject.net/Sites/2012/17/1417/Investor CDP 2012/Shared Documents/Attachments/InvestorCDP2012/15.Scope3Emissions/BMO Emissions Verification Fiscal 2011 (Morrison Hershfield).pdf

Module: Sign Off

Page: Sign Off

Please enter the name of the individual that has signed off (approved) the response and their job title

Jim Johnston
Director, Environmental Sustainability & Compliance