

# 2011 Carbon Disclosure Project

RBC Response



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## Module: Introduction

### Introduction

#### 0.1 Introduction

Please give a general description and introduction to your organization.

RBC provides personal and commercial banking, wealth management services, insurance, corporate and investment banking and transaction processing services on a global basis. RBC employs approximately 79,000 full and part-time employees who serve more than 18 million personal, business, public sector and institutional clients through offices in Canada, the U.S. and 56 other countries. RBC holds strong market positions in its five business segments: Canadian Banking; Wealth Management; International Banking; Capital Markets; and Insurance.

#### 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
Wed 01 Nov 2006 - Thu 01 Nov 2007
Thu 01 Nov 2007 - Sat 01 Nov 2008
Sat 01 Nov 2008 - Sun 01 Nov 2009
Sun 01 Nov 2009 - Mon 01 Nov 2010

#### 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
Canada
United States of America
United Kingdom
Jersey
Guernsey

#### 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 (\$)

## Module: Introduction

### 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](mailto: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>.

### Further Information

For convenience, we have included references to seven publicly available sources of information that we consider to be our keystone environmental reports and communication mechanisms. Five of these documents are available in pdf version and have been attached.

- RBC and the Environment website: <http://www.rbc.com/environment/index.html>
- RBC Environmental Blueprint (includes our Environmental Policy, priority environmental issues & objectives and 44 environmental commitments): <http://www.rbc.com/environment/pdf/RBC-Environmental-Blueprint.pdf>
- 2010 Environmental Blueprint Report Card (tracks progress against the 44 commitments made in the RBC Environmental Blueprint): <http://www.rbc.com/environment/pdf/2010-RBC-Blueprint-Report-Card.pdf>
- 2010 Corporate Responsibility Report and Public Accountability Statement (environment section on pages 66-79): <http://www.rbc.com/responsibility/pdf/RBC-CRR-Report-2010-e.pdf>
- 2010 SOFT Footprint Report (Sourcing, Operations, Facilities and Travel) that tracks over 40 environmental performance indicators): <http://www.rbc.com/environment/pdf/2010-SOFT-Footprint-Report.pdf>
- 2010 Annual Report to Shareholders (environmental risk disclosure on pages 49): [http://www.rbc.com/investorrelations/pdf/ar\\_2010\\_e.pdf](http://www.rbc.com/investorrelations/pdf/ar_2010_e.pdf)
- [green@rbc](mailto:green@rbc), our environmental newsletter: <http://www.rbc.com/environment/green-rbc-newsltr.html>

## Module: : Management [Investor]

### Governance

#### 1.1

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

Senior Manager/Officer

#### 1.1a

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

Director, Corporate Environmental Affairs.

#### 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	Management of environmental related issues, including climate change and energy, is a component of the performance goals of staff in Corporate Environmental Affairs, Corporate Real Estate and Wealth Management's Environmental Officer. RBC's performance based compensation program links employee performance to annual incentives.
Business unit managers	Monetary reward	Management of environmental related issues, including climate change and energy, is a component of the performance goals of Global Asset Management ESG Manager and staff working in the Capital Markets carbon trading desk. RBC's performance based compensation program links employee performance to annual incentives.

## Module: : Management [Investor]

### Strategy

#### 2.1

Please provide further details (see guidance).

#### RBC RISK MANAGEMENT

RBC's management of risk is supported by sound risk management practices and effective enterprise risk management frameworks. The cornerstone of these frameworks is a strong risk management culture, supported by an enterprise-wide set of policies and procedures which involve our risk management professionals, business segments and other functional teams. This partnership is designed to ensure the ongoing alignment of business strategies and activities within our risk appetite. Below we have presented how we identify risk related to the risk categories CDP has assigned: regulatory, physical and other.

#### REGULATORY RISK IDENTIFICATION

RBC defines **regulatory risk** as the risk of negative impact to business activities, earnings or capital, regulatory relationships or reputation as a result of a failure to comply with or a failure to adapt to current and changing regulation, law, industry codes or rules, regulatory expectations or ethical standards. RBC's strategy for identifying and managing the regulatory risks associated with climate change is to evaluate the impact of climate change regulations on the elements of our risk pyramid. The pyramid illustrates that climate change regulation gives rise to three risks: credit, market and operational risk.

RBC defines **credit risk** as the risk of loss associated with a counterparty's inability or unwillingness to fulfill its payment obligations. Credit risk may be direct (e.g. issuer, debtor, borrower or policyholder), or indirect to a secondary obligor (e.g. guarantor, reinsurance) and contingent on the default of the primary party.

To assess credit risk we contracted a third party consultant in 2008 to analyze the exposure of borrowers in our loan and investment portfolio to climate change risks and regulations. The analysis was conducted on approximately 100 of RBC's largest single name clients and included the review of borrowers in 12 industrial sectors. The analysis included the review of historic carbon emissions by company and sector, production growth projections by sector, current and projected compliance costs, availability and price of carbon offsets, regulatory frameworks and other parameters. The report identified risks and opportunities for each sector under three future carbon pricing scenarios and over two separate time periods. Results showed that our largest clients would continue to be profitable even when carbon is priced at \$100 / tonne and the impact on most companies will represent less than 5% loss of net income (profit).

RBC defines **operational risk** as the risk of loss or harm resulting from inadequate or failed internal processes, people and systems or from external events. Impending carbon regulations may create operational risks in the form of higher energy costs. RBC Corporate Real Estate (CRE) and our property management services company have well established systems in place to track utility bills for electricity and fuels used across our property portfolio of branches and major premises. Utility spends are analysed for trends and outliers on an annual basis. We also use utility bills and direct energy metering to track and report key environmental metrics (energy consumption, GHG emissions, etc) and present this information publicly in the RBC Sourcing, Operations, Facilities and Travel (SOFT) Footprint. Please see 2010 SOFT Footprint Report attached to this question.

RBC defines **market risk** as the risk of loss resulting from changes in market factors such as interest rates, foreign exchange rates, equity or commodity prices, or in the volatility of these factors. Market risk can be exacerbated by thinly-traded or illiquid markets. Identification of market and commodity trading risks is the responsibility of Group Risk Management (GRM) – Market and Trading Credit Risk, which includes major units in Toronto, London, New York and Sydney. Carbon is now traded on many exchanges across the globe as a commodity. Commodity trading risk is the potential for adverse impact on our earnings and economic value due to commodities price movements and volatilities. The RBC Capital Markets Carbon Trading desk also helps identify market risk through their understanding of carbon credits, exchanges and carbon forecasting on numerous carbon exchanges.

## Module: : Management [Investor]

### PHYSICAL RISK IDENTIFICATION

Using our risk management framework, we assessed that physical impacts of climate change may increase credit and operational risk. Credit risk in the form of our client's inability to fulfill payment of debt obligations due to climate related impacts on their operations and facilities. Operational risk in the form of impacts to RBC's global network of facilities that may be affected by meteorological events (i.e. impacts to our branch and major property network in regions like the Caribbean and south-eastern United States where climate modeling suggests increasing frequency and severity of tropical storms / hurricanes and some minor to moderate levels of sea level rise.)

RBC completed a study examining the physical risks of climate change to sectors and regions in which we do business. Results of the study were disseminated internally to affected industry and company analysts. Physical risks associated with climate change are primarily a function of the geographic location, the adequacy of municipal infrastructure to protect property from extreme weather events such as flooding, and the regional availability of resources such as water. Our understating of physical risks of climate change and timescales is primarily informed by the latest scientific information published by the Intergovernmental Panel on Climate Change (IPCC) and other scientific bodies. These reports unanimously state that weather related natural disasters such as floods, droughts and hurricanes will increase in frequency and intensity in almost all regions of the world over the next three to five decades.

### OTHER RISK IDENTIFICATION

Our risk management framework also identified the potential for climate change to increase in reputational and competitive risk. RBC defines reputational risk as the risk that an activity of RBC or its representatives will impair RBC's image in the community or public confidence, and that this will result in the loss of business and/or legal action or additional regulatory oversight.

RBC defines **competitive risk** as the inability to build or maintain sustainable competitive advantage in a given market or markets. Reputational risk, competitive risk and aspects of regulatory and physical risks are identified through market research and benchmarking studies, stakeholder engagement with NGOs and clients, and maintaining membership in multiple professional associations.

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## 2.2

### Is climate change integrated into your business strategy?

Yes

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## 2.2a

### Please describe the process and outcomes (see guidance)

The RBC Environmental Blueprint (see attached) outlines enterprise-wide commitments for climate change mitigation and adaptation, embedding climate change considerations into corporate policies, and integrating environmental sustainability and climate change into products, services and client advice, where possible.

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## Module: : Management [Investor]

### MITIGATION

Our primary mitigation commitment is to reduce the intensity of our direct and indirect energy use and employee travel activities – our two major sources of greenhouse gas emissions. We believe that improving our operational efficiency and reducing the greenhouse gas emissions associated with our activities will lead to positive environmental and economic results. Recent mitigation strategies include:

**Energy Efficiency:** Launched a multi-year Energy Management Plan across our retail branch network in Canada, which included over 200 lighting retrofits and nearly 80 heating, ventilation and air conditioning (HVAC) efficiency assessments.

**Purchasing Green Power:** Currently have a total of 124 RBC branches were powered by over 11,200 MWh of EcoLogo-certified green power, an almost 40% increase in green power purchases compared to 2009.

**Leasing and Building Green:** Leased over 150,000 m<sup>2</sup> of office space certified to LEED standard, representing nearly 20% of our global floor area in major leased properties. These buildings have been designed with numerous features that reduce energy use. We also began construction of a 400,000 square foot back office support facility in Ontario designed to achieve LEED Silver certification or better.

**Greening Logistics:** Project One Stop is an RBC initiative aimed at reducing the number and frequency of supplier deliveries at our properties in Canada in an effort to generate cost savings and reduce greenhouse gases and other harmful emissions associated with transportation. The first phase of the project was a baseline assessment that calculated over 700,000 annual deliveries to RBC Canadian properties with associated carbon dioxide equivalent (CO<sub>2</sub>e) emissions of 120,000 tonnes. The project then identified a number of opportunities including third party logistics, adjustments to delivery scheduling, shipment consolidations and warehousing, that will result in cost savings and environmental benefits.

Other initiatives aimed at responding to climate change are presented in the RBC Environment Blueprint Report Card that is attached to this question and on our internet website at: <http://www.rbc.com/environment/initiatives.html>

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### ADAPTATION

Depending on the region in which the RBC office is located, we anticipate that the physical effects of climate change may manifest through a general rise in temperature, an increase in volatile weather events, flooding and seasonal cycle changes, permafrost deterioration, pests, water quality issues and effects on human health. We anticipate the physical effects of climate change may result in the following operational risks to RBC:

- Business interruptions in costal regions where we operate (SE United States, Caribbean, Eastern Canada and the Channel Islands)
- Changes to heating and cooling costs
- Higher insurance costs for our properties
- Disruption to our supply chain that may impact our ability to operate our business from time to time

RBC has an enterprise-wide group focusing on management of business disruption risks, including disruptions from weather-related incidents. RBC uses a best-in-class Business Continuity Management program to ensure that our businesses are adequately prepared to deal with any disruption of service to clients. Risk assessments of all areas are conducted annually and further supported with contingency plans and periodic testing.

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## Module: : Management [Investor]

### CLIMATE CHANGE IN POLICY

In 2010 and 2011 we launched and implemented three new environmental and social policies that include climate change considerations:

- Enterprise-wide Policy on Environmental and Social Risk Management that requires all units within RBC to consider and manage environmental and social risks in all organizational decisions. Requires evaluations of environmental risk issues, including climate change, land and biodiversity, and water into relevant policies and decision-making processes.
- Policy on Environmental and Social Risk Management for Capital Markets includes as assessment of corporate clients on 10 environmental and social criteria, one being as assessment of the impacts of future environmental and climate change regulations. <http://www.rbc.com/environment/lending-equator-principles.html>
- Responsible Procurement Policy that requires all procurement engagements to include screening for environmental and social considerations, For certain material procurement engagements a review of environmental benefits and lifecycle impacts of a product, by evaluating the product's environmental impacts associated with the extraction of raw materials, manufacturing process, packaging, transportation, product longevity and end-of-life disposal. <http://www.rbc.com/environment/initiatives-procurement.html>

### BUSINESS OPPORTUNITIES

RBC has identified a number of business opportunities for financing / investing in opportunities related to climate change and is involved in the following:

- Capital Markets Power and Utilities group with expertise in clean energy investment banking (<http://www.rbc.com/environment/climate-change-solutions.html>)
- Capital Markets carbon trading desk (<https://www.rbccm.com/carbontrading/>)
- Canadian Banking Green Strategy for commercial and small business clients that identifies three areas of opportunity for financing: green buildings, small and medium renewable energy projects and cleantech in knowledge based industries (<http://www.rbcroyalbank.com/commercial/advice/greening-your-business/index.html>)
- Canadian Banking Cleantech group within Knowledge Based Industries <http://www.rbcroyalbank.com/RBC:TdKORawWAAsANSAsI18/kbi/index.html>
- Canadian Banking Home Equity Strategies that include a focus on mortgage and loan products that enable clients to improve the energy efficiency of their home (<http://www.rbcroyalbank.com/products/mortgages/energy-saver-mortgage.html>)

### 2.2b

Please explain why not

### 2.3

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

Yes

## Module: : Management [Investor]

### 2.3a

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

#### i) ENGAGEMENT PROCESS

RBC executives, Corporate Environmental Affairs and RBC Emissions Trading group have been actively involved in discussions with elected public servants, policy makers, companies and other stakeholders on climate change. Examples include:

- June 2010, presented to the Canadian Senate's Standing Committee on Energy and Environment on climate change/cap and trade legislation in the US and lessons for Canada
- Ongoing participation in Shell-Pembina dialogue on a "no regrets" climate policy for Canada
- Discussions with Alberta government, NGOs, academics, Aboriginal leaders, industry associations and corporate clients regarding the environmental impacts of Alberta oil sands
- Formal discussions with the Canadian Association of Petroleum Producers National Oil Sands Dialogue and the federal government on Canada's Position and Go Forward Plan, on the design of a federal carbon cap and trade system
- Consultation meetings with the Ontario Minister of the Environment and Climate Change Secretariat on design of future cap and trade legislation and integrating climate change policy across all govt sectors, programs

#### ii) ACTIONS WE ARE ADVOCATING

##### Lower Energy Use and GHG Emissions

Energy production and consumption account for an estimated 80% of global anthropogenic greenhouse gas emissions. Reducing greenhouse gas emissions is a significant challenge given the global dependence on fossil fuels. Protecting ecosystems and human health from some of the significant predicted impacts of climate change will require a transformation of the world's energy systems.

Transforming the world's energy systems will require billions of dollars in investments over the next several decades. The development of low emission energy sources and technologies present immediate and long-term opportunities for many of our stakeholders, including our business clients. We believe our role is to understand the full scope of risks and opportunities facing both renewable and fossil fuel-based energy development, so we can continue to take a balanced, long-term view when providing financial services and advice.

##### Design Sustainable Cities

Over half the world's population lives in cities and that number is rising. As urbanization continues, there will be a need to expand and renew infrastructure. Buildings must be designed for a lower carbon future where energy may be more costly and where they may be subject to different weather patterns due to climate change. Effective growth management, land-use planning, energy mapping and transportation strategies are required for thriving, sustainable urban centres of the future.

A paradigm shift will be needed to create truly sustainable cities that meet the challenges of the future. We are encouraged by the recent growth in green buildings and the robust dialogue on integrated community energy planning and other smart infrastructure renewal. We believe our role is to encourage this shift by promoting research and dialogue on sustainable cities, and by continuing to lend to green buildings, renewable energy initiatives and other smart infrastructure projects.

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### **Recognise the Importance of Water**

Water shortages and lack of access to clean, fresh water are considered to be two of the largest threats to human health and economic development around the world. Climate change means that water is not always where we want it, when we want it, and historical water patterns are becoming less relevant. Competing demands for clean water mean that policies need to consider how to allocate water fairly among users, while still leaving enough for nature. As a bank, it is our role to understand the risks and opportunities facing our clients. Sectors that depend on water for their operations could face financial and operational risks if they do not have access to water in the volumes and quality required to run their operations. Water quality and quantity issues will also present opportunities for our business clients who are developing and commercializing innovations in water supply, efficiency, treatment and automated control.

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## Module: : Management [Investor]

### Targets and initiatives

#### 3.1

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

No

#### 3.1e

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

i) We do not currently have an emissions reduction target; however, RBC Corporate Environmental Affairs is developing an energy and/or GHG emission reduction target with a number of internal stakeholder groups including: Corporate Real Estate, Technology & Operations, Physical Network Distribution with input from RBC business units that use environmental sustainability as a platform to sell banking products and services. We plan to announce an energy and/or GHG emission reduction target in 2012.

ii) We are currently forecasting that our emissions will remain relatively constant or decrease slightly over the next five years. Forecasting our emissions is primarily a reflection of the size of our property portfolio, the energy efficiency of our property portfolio, and the need for employee business travel. See further discussion on these forecasting influencers below.

#### **Size of Property Portfolio**

Since the acquisition of RBTT in 2007, the size of our global property portfolio has remained relatively constant and the GHG emissions associated with energy consumption (Scope 1 and 2) has also remained relatively constant during this period (see 2010 SOFT Footprint attached). Anticipated areas of business growth for RBC in the next five years focuses on the international expansion of RBC's Capital Markets and Wealth Management services; however, these types of operations only require small amounts of office space when compared to our retail operations in Canada, United States and Caribbean, so the anticipated increase in emissions is considered negligible. There is a possibility of a significant reduction in our property portfolio and hence total GHG emissions if RBC divests of our current retail banking operations in the United States.

#### **Energy Efficiency of Property Portfolio**

A positive trend we are observing is the general decrease in the energy intensity of our property portfolio (see 2010 SOFT Footprint attached). This trend is a reflection of the initiatives underway to improve energy efficiency in our properties such as lighting retrofits, HVAC efficiency assessments, after hours lighting shutdown programs and new office design and configurations. Another real estate strategy that is making a difference is choosing to lease or build green office space, specifically office space built and certified to LEED standards. LEED stands for Leadership in Energy and Environmental Design and is the predominant standard for green buildings in North America. These building have been designed with numerous features that reduce energy use. We currently lease over 150,000 m2 of office space certified to the LEED standard, representing nearly 20% of our global office tower space. In 2010, we began construction of a 37,000 m2 back office support facility designed to achieve LEED Silver certification or better, which will have state-of-the-art energy efficiencies built into the building design.

#### **Employee Business Travel**

Employee business travel by all modes of transportation was up in 2010 as travel patterns return to levels seen prior to the economic downturn in 2009; however, travel levels are still well below the previously recorded maximum of 227 million kilometres of total staff travel reported in 2007 (see 2010 SOFT Footprint attached), primarily due to cost containment measures and by promoting alternatives to travel including audio, web and video conferencing. We anticipate that travel levels we remain relatively constant or increase slightly over the next five years. An increase will likely be associated with the need for greater international travel as RBC Capital Markets and Wealth Management expand in Global markets.

## Module: : Management [Investor]

### 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)**

##### RETAIL / COMMERCIAL / WHOLESALE BANKING

RBC Energy Saver Mortgage: \$300 rebate on a home energy audit in Canada

[http://www.rbcroyalbank.com/products/mortgages/energy\\_saver.html](http://www.rbcroyalbank.com/products/mortgages/energy_saver.html)

RBC Energy Saver Loan: 1% discount or \$100 energy audit rebate on loans over \$5,000 for qualified environmentally-friendly purchases in Canada

<http://www.rbcroyalbank.com/products/personalloans/energy-saver-loan.html>

RBC developed lending policies for solar PV projects in Canada and offers tailored financing solutions for households, small businesses and commercial enterprises

<http://www.rbcroyalbank.com/commercial/financing/solar-panel-financing.html>

Through its Tax Credit Equity Group, RBC either invests directly or syndicates investments in affordable housing projects in the United States. Most projects have green elements and many are certified under LEED or other green building rating systems

<https://www.rbccm.com/tceg/>

RBC partnered with Canada Mortgage and Housing Corporation to create a Grow an Energy Efficiency Home advice centre.

Shows homeowners what they can do to reduce energy use

<http://www.rbcroyalbank.com/renovating/eco-reno-tips.html>

The RBC Greening Your Business Advice Centre offers businesses free resources to help them transition to a more sustainable business model:

- 44-pg Greening Your Business Guide containing information on environmental sustainability, why it matters, the business case for going green, and how companies can create their own green plan
- Articles & videos on sustainability topics: Managing Carbon, Conserving Water, Greening your Supply Chain, Energy Efficiency, Brownfield Development, Waste Mgmt
- Sector sustainability reports
- Webinars on energy retrofits, investing in innovation

<http://www.rbcroyalbank.com/commercial/advice/greening-your-business>

##### INVESTMENT BANKING

RBC offers renewable energy investment banking services through RBC Capital Markets' Toronto, Canada, and London, UK, Power & Utilities teams and provides support for our IB activities within the renewables sector for wind farm, small hydro and biomass companies.

RBC Carbon Emissions Trading offers global carbon trading services in all major markets. Since inception in 2008, the group has traded 280 million tonnes of carbon credits.

<https://www.rbccm.com/carbontrading>

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RBC's due diligence process for debt and equity offerings includes the assessment of material environmental issues. In all cases where climate change regulation or physical impacts are expected to be material to the investments, the associated risks or opportunities will be disclosed.

All RBC's project finance activities are done in accordance with the Equator Principles and RBC's Policy on Social and Environmental Review in Project Finance. They include requirements for performing EIAs which look at the impacts of climate change regulations and physical impacts. RBC has a specialized cleantech lending team within its Knowledge Based Industries group. This team has experts across Canada who advise and lend to clients that develop products or offer services related to clean technology, including climate change mitigation.

### ASSET MANAGEMENT

RBC Global Asset Management offers Canadian clients seven SRI products utilizing SRI research and environmental, social and governance screens developed by Jantzi-Sustainalytics. The screening process includes the review of climate change related performance for carbon intensive sectors.

<http://funds.rbcgam.com/investment-solutions/socially-responsible-investments/index.html>

To support the growth in socially responsible investing among high net-worth individuals, foundations, unions, and pension funds, RBC's SRI Wealth Management Group provides SRI expertise to clients across the United States.

<http://www.rbcwmfa.com/sri/>

Access Capital Community Investment Fund offers institutional investors the ability to invest in underserved communities across the U.S. by giving investors the opportunity to include funds in their portfolios that support their social values.

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### 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

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## Module: : Management [Investor]

### 3.3a

Please provide details in the table below

Activity type	Description of activity
Behavioral change	<p><b>STAFF ENGAGEMENT</b></p> <ul style="list-style-type: none"> <li>• Earth Hour employee engagement included 4,350 employees committing to observing Earth Hour.</li> <li>• green@rbc, our environmental e-newsletter that is sent via email to over 3,000 internal and external contacts every two months that includes climate change content.</li> <li>• Our intranet site has a climate change section</li> <li>• Posted 7 news stories that included climate change content on rbc.net in the first half of 2011.</li> <li>• 2011 Earth Day environmental fairs across the organization and included climate change awareness.</li> </ul> <p><b>RESEARCH AND THOUGHT LEADERSHIP</b></p> <ul style="list-style-type: none"> <li>• Partnered with Pollution Probe and released the Primer on Energy Systems in Canada, a comprehensive overview of the resources, challenges and opportunities related to energy and climate change in Canada.</li> <li>• Partnered with Canadian Manufacturers and Exporters and developed a report on greening the manufacturing sector that includes a section on climate change</li> <li>• Participated on Advisory Group to University of Waterloo study on climate change adaptation needs of industry sectors in Canada.</li> <li>• Sponsored the Climate Prosperity Initiative to help Canadians understand the physical impacts of climate change.</li> </ul> <p><b>TRAINING</b></p> <ul style="list-style-type: none"> <li>• Supporting our Canadian Banking Green Business Strategy through a client webinar on energy retrofits and staff training solar energy financing.</li> <li>• Trained over 250 Capital Markets and Group Risk Management staff on our new Policy on environmental and social risk management for corporate lending and investment banking. The policy requires the review of a client's performance on ten key areas including the impact of current and future regulations to mitigate climate change.</li> <li>• Trained over 60 procurement staff on the new Responsible Procurement Policy that requires all procurement engagements to include screening for environmental and social considerations, including a review of a supplier's greenhouse gas abatement programs.</li> <li>• Developed an environmental e-learning module available to all staff globally that includes training on climate change science and what RBC is doing to reduce our carbon footprint. E-learning module is set to launch summer 2011.</li> </ul>
Energy efficiency: building services	<p>Recent energy related initiatives include:</p> <ul style="list-style-type: none"> <li>• Launched a multi-year Energy Management Plan across our retail branch network in Canada. This included over 200 lighting retrofits and nearly 80 heating, ventilation and air conditioning (HVAC) efficiency assessments.</li> <li>• Leased over 150,000 m2 of office space certified to LEED standard, representing nearly 20% of our global floor area in major leased properties. These buildings have been designed with numerous features that reduce energy use.</li> <li>• Expanded Project Reflection, a new office design that reflects a more mobile and customized way of working, within Calgary and Toronto. To date, Project Reflection has reduced our office space requirements by approximately 4,650 m2, resulting in annual energy savings of over 1,900 MWh, about the equivalent energy use of 160 Canadian homes.</li> <li>• Piloted an after hours energy initiative in a major property that involved minimizing lighting in the evening and on weekends / holidays. The pilot demonstrated a 43% reduction in lighting energy load and a 27% reduction in the total energy load. We plan to expand the pilot to other locations in 2011.</li> </ul>
Low carbon energy purchase	<p>Opened 28 new green-powered branches in Canada in fiscal 2010. As of October 31, 2010, a total of 124 RBC branches were powered by over 11,200 MWh of EcoLogo-certified green power, an almost 40% increase compared to 2009.</p>
Low carbon energy installation	<p>Piloting rooftop solar at 5 retail branches in Ontario</p>
Other	<p>Green IT initiatives include:</p> <ul style="list-style-type: none"> <li>• Began construction of a 400,000 square foot back office support facility in Ontario designed to achieve LEED Silver certification or better.</li> <li>• Reduced energy use in RBC's data centres through server virtualization, which stores multiple applications on one physical server. Since the inception of the program, we have eliminated the need for an estimated 6,200 servers representing a 42 percent reduction in servers.</li> <li>• Reduced the ratio of employees to printers from 3:1 to 9:1, lowering energy requirements for our print network.</li> </ul>

## Module: : Management [Investor]

### 3.3b

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

Method	Comment
Dedicated budget for energy efficiency	Budget for Energy Management Plan (lighting retrofits and HVAC systems assessments) set annually in budgeting process. Business case established on a number of premises including: cost savings, consistent with environmental strategy and publicly made commitments to reducing energy and GHG emissions, alignment with RBC business units that are promoting environmental sustainability as a strong business platform to clients, positive environmental benefits and positive reputational benefits.
Dedicated budget for other emission reduction activities	Budget for purchasing green power, carbon offsets for events and the production and distribution of major reports set annually in budgeting process. Business case established on a number of premises including: consistent with environmental strategy and publicly made commitments to reduce GHG emissions associated with energy use in our properties, support for renewable energy sector and the greening of Canada's electricity grid, good marketing opportunities, and positive environmental and reputational benefits.
Employee engagement	Business case established on a number of premises including: positive employee experience that helps to retain and attract top talent, cost savings, and positive environmental and reputational benefits.
Dedicated budget for other emission reduction activities	Greening our back office business processes and logistics infrastructure is emerging as a powerful tool for reducing our environmental footprint. In 2008, RBC Technology and Operations established the Green IT Committee to initiate, manage and track IT related green solutions. We know that we can reduce our impact on the environment by developing back office processes that use less energy and paper and require less transportation and storage of documents. One example of a technology enabled green solution is e-courier, a program where Canadian branches can electronically submit documents to central processing offices. The E-courier program dramatically reduces the need for paper documentation as well as the need to transport these documents.

### 3.3c

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

## Module: : Management [Investor]

### 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 other regulatory filings (complete)	64-77	2010 Corporate Responsibility Report and Public Accountability Statement
In voluntary communications (complete)	Primarily page 2, but embedded throughout document	2010 RBC Blueprint Report Card
In voluntary communications (complete)	All	2010 SOFT Footprint
In annual reports (complete)	51	2010 Annual Report
In voluntary communications (complete)	All	Website: <a href="http://www.rbc.com/environment/index.html">http://www.rbc.com/environment/index.html</a>

## Module: : Management [Investor]

### Climate Change Risks

#### 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?)**

No

#### 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**

The majority of RBC's business activities are focused in North America. Current climate change regulations in states and provinces within North America do not pose a significant risk to RBC. Our studies show that anticipated carbon regulations in Canada and the United States may have a small indirect impact on RBC, but will not generate a substantive change in your business operations, revenue or expenditure. Below we have outlined how climate change regulations will affect RBC based on credit, market and operational risk as presented in our response to Question 2.1a.

#### **CREDIT RISK**

Some of our commercial and corporate clients may, at some point, be regulated under GHG mitigation rules in Canada, the US, and internationally. This may give rise to credit risk for RBC as clients face new regulatory, reputational, competitive, operational, and market risk. Clients that do not identify and manage these risks appropriately may experience diminished financial performance and a possible deterioration in credit quality. However, RBC has a diversified portfolio and the majority of our clients will not be impacted by future climate change regulations.

Approximately 70% of our outstanding loans are associated with personal banking clients, small business and commercial clients that will not be directly subjected to anticipated climate change regulations in Canada and the United States. The remaining 30% of our outstanding loans are associated with large and corporate clients (wholesale). Our lending to carbon intensive sectors (energy, utilities, metals & mining, transportation, industrial products and forest products) represents approximately 12% of our outstanding loans. Many, but not all, of these clients will be directly subjected to climate change regulation. The analysis conducted in 2009 on climate change related risks to our loan and investment portfolio showed that all of our largest clients would continue to be profitable even when carbon is priced at \$100 / tonne and the impact on most companies will represent less than 5% loss of net income (profit).

#### **ADDRESSING CREDIT RISK**

**Environmental Policies:** See details in response to Question 2.1a.

**Environmental Risk Ratings:** Industry sectors are categorised by RBC according to the level of inherent environmental risk. Sectors classified as Environmental Risk Category 0 are low risk and consist mainly of professional services firms, while Environmental Risk Category III sectors include high impact sectors like mining, energy, pulp and paper, etc. We require enhanced environmental and social due diligence for clients operating in Environmental Risk Category II and III sectors (considered to be medium and high environmental risk sectors respectively), which includes an evaluation of climate change issues.

**Credit Risk Management:** Our enterprise credit risk management framework ensures that sectors, borrowers and transactions are carefully evaluated and credit risk assessed. This process is extensively described in our 2010 Annual Report (page 39) that is attached to this question.

**Carbon Risk Assessment of Portfolio:** As described above

## Module: Risks and Opportunities [Investor]

### MARKET RISK

RBC is actively involved in carbon trading markets and, as in any commodity trading market, we will face market risk that can be exacerbated by thinly-traded or illiquid markets (which will be a characteristic of carbon markets, especially in the early years). Market risk is also amplified by the risk that regulators will make unforeseen changes to the regulatory framework, causing large shifts in the market.

### ADDRESSING MARKET RISK

Climate change may give rise to market risk in the form of commodity trading risk. The independent oversight of trading market risk management activities is the responsibility of Group Risk Management (GRM) – Market and Trading Credit Risk, which includes major units in Toronto, London, New York and Sydney. The Market and Trading Credit Risk group establishes market risk policies and limits, develops quantitative techniques and analytical tools, vets trading models and systems, maintains the Value-at-Risk (VaR) and stress risk measurement systems, and provides enterprise risk reporting on trading activities.

### OPERATIONAL RISK

The price of energy may rise if power producers are able to pass on costs associated with their obligation to meet carbon emission regulations in Canada, the United States and elsewhere. We anticipate that an increase in RBC's operating costs due to higher energy prices will be offset to some extent by savings that arise from our energy efficiency initiatives. Energy costs also immaterial when compared to the total operating costs of RBC globally.

### ADDRESSING OPERATIONAL RISK

**Environmental Reporting:** In 2006, we developed the Sourcing, Operations, Facilities and Travel (SOFT) Footprint (see attached) to help us track our progress in reducing our demand on natural systems while managing our costs.

**Energy Efficiency:** See RBC Environmental Report Card attached.

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### 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**

The majority of RBC's business activities are focused in North America. Current climate change related physical impacts in North America do not pose a significant risk to RBC. We also believe that anticipated physical risks in Canada and the United States will pose some risk to RBC, but will not generate a substantive change in your business operations, revenue or expenditure. Below we have outlined how climate change physical impacts will affect RBC based on credit and operational risk.

### CREDIT RISK

**Many of our commercial and corporate clients will have to manage the physical impacts of climate change at their facilities and properties. This may create credit risks for RBC as the physical impacts may affect our client's ability to fulfill their payment obligations.**

### ADDRESSING CREDIT RISK

**Credit Assessment Process:** Risk associated with the operational impacts and business continuity are assessed as part of the credit assessment process. It is examined as part of the market and competitive analysis, company strategy review and assessment of general industry risk where appropriate. The credit assessment process evaluates insurance and business continuity plans to ensure they adequately address all types of operational risk, including physical impacts associated with climate change.

**Climate Change Review in Capital Markets:** Policy on Environmental and Social Risk Management for Capital Markets includes an assessment of corporate clients on 10 environmental and social criteria, one being an assessment of the impacts of future environmental and climate change regulations. <http://www.rbc.com/environment/lending-equator-principles.html>

**Climate Change Review in Project Finance:** RBC was the first Canadian bank to sign the Equator Principles in 2003, and we recommitted to the revised Principles in 2006. The Equator Principles requires enhanced environmental and social due diligence in project finance including the review of climate change related risks and operation impacts.

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## Module: Risks and Opportunities [Investor]

### OPERATIONAL RISK

Depending on the region in which the RBC office is located, we anticipate the physical effects of climate change may result in the following operational risks to RBC:

**Business Interruption:** We anticipate that our branches and offices located in coastal regions such as the south-eastern United States; coastal British Columbia, the Atlantic region and along the St. Lawrence River in Canada; the Caribbean, coastal south-eastern United States and British Isles may be more prone to storm damage.

**Changes to Heating and Cooling Costs:** We anticipate more significant demand for air conditioning, while warmer winters will mean lower heating costs.

**Higher Insurance Costs for our Properties:** Severe weather events, exacerbated by insufficient infrastructure and land use planning, may result in higher insurance premiums and difficulty in obtaining insurance coverage for certain perils based on climate change considerations.

**Insurance Claims Risk:** With the unpredictability of weather patterns associated with climate change, there is a risk of loss when assumptions made in insurance product design and pricing activities differ from actual experience. However, at RBC, the risk associated with property and catastrophe reinsurance has been largely mitigated by our strategic exit from the property reinsurance business in 2006.

**Disruption to our Supply Chain:** RBC requires products and services to conduct our business effectively, including items such as paper, electronics and energy. Physical impacts may disrupt our supply chain and impact our ability to operate our business.

Climate change modeling has provided strong evidence of shifting climate and meteorological trends over medium to long-periods of time, but does not have a strong ability to predict variations year-over-year that can be applied in a meaningful way to RBC's property portfolio, supply chain and our operating costs. However, with some confidence we have estimated the financial implications over the next 3-5 years will be immaterial when compared to RBC's total operating costs.

### ADDRESSING OPERATIONAL RISK

RBC has an enterprise-wide group focusing on management of business disruption risks, including disruptions from weather-related incidents. RBC uses a best-in-class Business Continuity Management program to ensure that our businesses are adequately prepared to deal with any disruption of service to clients. Risk assessments of all areas are conducted annually and further supported with contingency plans and periodic testing.

The RBC Enterprise Crisis Management team, consisting of senior executives from across the organization, is responsible for ensuring continued service to our clients. It is supported by a global network of regional, business-line and local incident management teams.

#### 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**

Other climate change risks that affect corporations are reputational and competitive. We have taken action to mitigate these risks and our analysis indicates that these risks are negligible. More details are presented below.

### REPUTATION RISK

Financial institutions that do not adequately identify, manage and mitigate where appropriate their contribution to climate change face increasing censure from their stakeholders including investors, clients, employees, and the general public. This may damage the firm's image in the community or public confidence, resulting in the loss of business. Also, when evaluating risk from a marketing and reporting perspective, there is also a growing consumer suspicion of exaggerated or false claims regarding a company's environmental performance, known as "greenwash.". Reputational risks apply to all regions where RBC operates.

## Module: Risks and Opportunities [Investor]

### ADDRESSING REPUTATIONAL RISK

Our robust environmental policy frameworks shields RBC from reputational issues related to climate change. The RBC Environmental Blueprint (see attached) identifies climate change as one of our priority environmental issues and contains a number of publicly made commitments related to combating climate change. RBC also has both an enterprise-wide level Corporate Environmental Policy, first launched in 1991, and an internal suite of supporting policies directed at both our operational impacts and environmental credit risk management for lending and investment. These policies include climate change considerations. As our understanding of environmental issues and climate change has expanded over the years, and through stakeholder engagement, research and collaboration, we have revised our Corporate Environmental Policy periodically, so that it continues to guide RBC's business and operational activities in a manner consistent with the evolving principles of sustainable development.

We have also mitigated reputational risks through

- Training our staff on environmental policies and climate change related information
- Staff communication and engagement
- Maintaining committees and centres of environmental and climate change expertise
- Research and thought leadership on environmental and climate change related topics

For more details please see the RBC Environmental Blueprint Report Card attached or online at <http://www.rbc.com/environment/pdf/2010-RBC-Blueprint-Report-Card.pdf>

### COMPETITIVE RISK

This is the risk that a bank might be unable to build or maintain sustainable competitive advantage over its peers in a new market where green products and services are important, where climate change physical impacts must be considered, and where carbon market capabilities are required. Financial institutions are also increasingly expected to develop and adhere to lending and procurement policies that promote sustainable development and also expected to provide services that allow clients to reduce their impact on the environment and adapt to unavoidable environmental impacts, such as climate change.

Competitive risks are greatest in North American markets where RBC has the vast majority of operations and competes with a variety of our banks to offer clients green products and services.

### ADDRESSING COMPETITIVE RISKS

#### Offer clients environmental products and services

As outlined in the RBC Environmental Blueprint, we seek to offer an expanding array of products and services that provide long-term environmental benefits, are clearly distinguishable from comparable non-environmentally focused products, and empower clients with options to reduce their environmental footprint at little or no additional cost to the client. Please see our responses to CDP Questions 3.2a for a detailed summary of our environmental products and services.

## Module: Risks and Opportunities [Investor]

### Climate Change Opportunities

#### 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

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact
Cap and trade schemes	Carbon Trading	New products/business services	Current	Direct	Virtually certain	Low
Other regulatory drivers	Clean Energy Financing	New products/business services	Current	Direct	Virtually certain	Low-medium
Other regulatory drivers	Carbon Market Advisory Service	New products/business services	Current	Direct	Virtually certain	Low
Other regulatory drivers	Renewable Energy Financing Advisory Services	New products/business services	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

#### OPPORTUNITIES

##### Carbon Trading

The RBC Capital Markets emissions trading desk provides expertise of carbon credits, exchanges and carbon forecasting. As of October 31st, 2010 (fiscal year-end) the desk has traded over 280 million tonnes of carbon credits since inception. The majority of the trading volume centres around the European Union Emissions Trading Scheme (EU ETS), the largest compliance market in the world, but we have also seen a growth in trading on the North America Regional Greenhouse Gas Initiatives (RGGI) and other voluntary markets.

<https://www.rbccm.com/carbontrading>

##### Clean Energy Financing

RBC recognizes opportunities associated with the growth in clean energy, including renewable, alternative and clean technologies, as government agencies set policies and targets on the expansion of clean and renewable power generation. This is a growing part of our business. As of October 31, 2010, RBC Capital Markets had nearly \$1.6 billion in outstanding loans and trading lines to companies whose predominant business is renewable energy production, a 34% increase over 2009. Breakdown is below:

## Module: Risks and Opportunities [Investor]

- Hydroelectric: \$1,363 million to Canadian public and private companies whose primary power generation capacity is derived from water.
- Wind: \$61 million to electricity producers whose primary method of power generation is wind.
- Biomass: \$81 million to several biomass projects in North America, including the production of ethanol and the generation of electricity through the combustion of biowaste and landfill gas.
- Solar: \$75 million to global manufacturers of thin film photovoltaic solar modules.

### Carbon Market Advisory Services

Emerging regulations requiring large emitters to reduce greenhouse gas emissions, and the developing market in GHG emissions trading, will impact some of RBC's biggest clients. RBC can assist clients in managing these risks, as well in taking advantage of associated opportunities, by offering GHG emissions related advisory services. RBC has one-stop-shop capabilities for clients' GHG emissions management needs. Helping clients manage their own risks will also have the secondary, indirect, effect of reducing

RBC's counterparty risks (assuming these clients present credit risks within RBC's portfolio). There may be particular opportunities to offer advice to clients that are developing renewable energy projects as these clients will require assistance in navigating complex domestic and international rules. <https://www.rbccm.com/carbontrading>

### Renewable Energy Financing Advisory Services

RBC Capital Markets in Calgary and London (UK) have Energy & Utility teams that provide advisory services to the renewable energy sector. Each team offers investment banking, financing and advisory services for businesses and renewable power projects in North America and Europe, and provides support for our activities within the renewables sector for projects such as wind farm, small hydro and biomass projects.

#### 6.1c

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

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact
Other physical climate drivers	Infrastructure financing	New products/business services	Current	Direct	Virtually certain	Low-medium
Other physical climate drivers	Lower operating costs	Reduced operational costs	Current	Direct	Virtually certain	Low
Other physical climate drivers	Supporting water related issues	Other: Supporting water related causes	Current	Direct	Virtually certain	Low

## Module: Risks and Opportunities [Investor]

### 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

#### OPPORTUNITIES

##### Infrastructure Financing

Physical deterioration of infrastructure may be accelerated by climate change, particularly in Canada's north as the permafrost melts. This may result in large public sector financing needs for upgraded roads, buildings, and municipal infrastructure. Adaptation to climate change may also require significant capital expenditure for roads, docks, water treatment systems, sewers, and other systems.

##### Lower Operating Costs

With a large proportion of our global operations situated in Canada, RBC may benefit from lower heating costs in colder parts of the country, as Canadian winters become warmer in the changed climate. (This may however be offset by hotter summers and increased cooling costs). In fact, the winters of 2006, 2007 and 2010 in Canada were three of the warmest on record according to Environment Canada.

##### Supporting Water Related Causes

Climate change is exacerbating water quality and availability issues all over the world. This unfortunate reality gives rise to community investment opportunities for large corporations to help address the problems. RBC is committed to making a lasting social impact through responsible giving and by building strong partnerships with the charitable sector. We have donated \$6.54 million in 2010 to environmental charities in Canada, the United States and the Caribbean, most of this to water related causes. Our signature environmental cause is the RBC Blue Water Project, our global commitment to help protect the world's fresh water resources.

Some of the environmental projects we support include features that have an affect on climate change mitigation and adaptation, including projects that:

- protect or restore forested areas that act as carbon sinks;
- protect or restore costal wetlands that regulate sea water intrusion into inland areas that could impact groundwater used for drinking;
- educate homeowners and businesses about the need to conserve water (i.e. water barrels to collect rainwater), especially in regions where climatologists predict communities must adapt to more frequent water shortages due to shifting meteorological patterns.

See: <http://bluewater.rbc.com/>

## Module: Risks and Opportunities [Investor]

### 6.1e

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

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact
Other drivers	Home energy efficiency products and advice	New products/business services	Current	Direct	Virtually certain	Low
Other drivers	Advice on greening your business	New products/business services	Current	Direct	Virtually certain	Low
Other drivers	Solar panel financing for small business and commercial clients	New products/business services	Current	Direct	Virtually certain	Low
Other drivers	LEED certified affordable housing financing	New products/business services	Current	Direct	Virtually certain	Low
Other drivers	Socially responsible investments and advisory services	New products/business services	Current	Direct	Virtually certain	Low

### 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

#### OPPORTUNITIES

##### Energy Saver Mortgage

In September 2008, we launched the RBC Energy Saver Mortgage in Canada which offers a \$300 rebate on a home energy audit. A home energy audit is a report generated by a licensed professional who is specially trained to examine electrical, mechanical and architectural aspects of residential homes. The audit provides recommendations to help improve a home's energy efficiency and lower its energy costs.

See: <http://www.rbcroyalbank.com/products/mortgages/energy-saver-mortgage.html>

##### Energy Saver Loan

We offer clients in Canada the RBC Energy Saver Loan which helps clients create a more energy efficient home while saving on borrowing costs. By making a qualified environmentally-friendly purchase, clients can receive a 1% discount or a \$100 home energy audit rebate on a fixed rate installment loan over \$5,000.

See: <http://www.rbcroyalbank.com/products/personalloans/energy-saver-loan.html>

##### Advice on Greening Your Home

RBC Home Equity partnering Canada Mortgage and Housing Corporation (CMHC) launched a Grow an Energy Efficiency Home advice centre, which shows homeowners what they can do to reduce home's energy use, from something as simple as switching to compact fluorescent light bulbs to upgrading your home's insulation, to installing a high-efficiency furnace.

See: <http://www.rbcroyalbank.com/products/personalloans/eco-reno-tips.html>

##### Advice on Greening Your Business

RBC Business Financial Services launched a Greening Your Business advice centre for small business and commercial clients. The website presents numerous articles and videos on a variety of topics related to greening your business including: Managing Carbon, Conserving Water, Greening your Supply Chain, Increasing Energy Efficiency, Brownfield Development and Waste Management.

See: <http://www.rbcroyalbank.com/commercial/advice/greening-your-business/index.html>

## Module: Risks and Opportunities [Investor]

### **Solar Panel Financing for Small Business and Commercial Clients**

RBC has introduced a range of financing options for businesses looking to install solar energy systems. Solar panel financing options can include amortization periods of up to 10 years in certain instances. Whether you are investing in a solar energy system to control costs, to access a new revenue stream or simply to reduce your carbon footprint, RBC's financing products can help to make the business case for solar energy systems even more appealing.

See: <http://www.rbcroyalbank.com/business/financing/solar-panel-financing.html>

### **LEED Certified Affordable Housing Financing**

In 2010, the RBC Tax Credit Equity Group invested US\$262 million in the development of 31 affordable housing projects in the United States. RBC takes a 99% equity ownership position in the affordable housing projects developed under this program. The Low Income Housing Tax Credit created under the US Tax Code, allows state housing finance agencies to allocate tax credits which developers in partnerships with banks and other not-for-profit agencies bid on. The equity raised from the sale of the tax credits reduces the debt of the housing project and in exchange, the partnership restricts the rental rates and ensures the units are rented to lower income residents.

See: <https://www.rbccm.com/tceg/cid-207812.html>

### **Socially Responsible Investment Products**

Since 2007, RBC has been helping investors reach their financial goals while incorporating broader concerns for social responsibility, environmental sustainability and corporate governance into our investment products. Using numerous indicators for environmental, social and governance performance, socially responsible investment (SRI) funds provide clients with the assurance that responsible screening has been applied to the investment decision-making process. The screening process also includes the review of climate change related performance for carbon intensive sectors.

We offer our clients seven SRI products through RBC Global Asset Management, including four Phillips, Hager & North Community Values Funds and three RBC Jantzi Funds. Total assets under management for the combined SRI products were estimated to be in excess of \$900 million as of October 31st, 2010.

See: <http://funds.rbcgam.com/investment-solutions/socially-responsible-investments/index.html>

### **Socially Responsible Investment Advisory Services**

All RBC investment advisors in Canada can counsel clients on the RBC Jantzi Funds. In addition, RBC investment advisors have the ability to access information on dozens of other SRI products in the Canadian market and can also facilitate investments in these products. To support the growth in socially responsible investing among high net worth individuals, foundations, unions, and pension funds, RBC's SRI Wealth Management Group provides SRI expertise to clients across the United States.

The specialized team of financial advisors, based in San Francisco, manages almost US\$1 billion in responsibly invested assets.

See: <http://www.rbcwmfa.com/sri/index.htm>

Access Capital Community Investment Fund offers institutional investors the ability to invest in underserved communities across the U.S. by giving investors the opportunity to include funds in their portfolios that support their social values.

## Module: Risks and Opportunities [Investor]

### 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)
Fri 31 Oct 2008 - Sun 01 Nov 2009	33482	178080

#### 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)

#### 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	1.93	Other: kg CO2e per m3	WRI. GHG Protocol tool for stationary combustion
Propane	1.52	kg CO2 per litre	WRI. GHG Protocol tool for stationary combustion
Other: Heating oil	2.68	kg CO2 per litre	WRI. GHG Protocol tool for stationary combustion
Electricity		Other: metric tonnes of CO2e per kWh	See spreadsheet attached for breakdown by Province and State

## Module: Risks and Opportunities [Investor]

### Emissions Data - (1 Nov 2006 - 1 Nov 2007)

#### 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 CO<sub>2</sub>e

11336

#### 8.3a

Please provide your gross global Scope 2 emissions figure in metric tonnes CO<sub>2</sub>e

25088

#### 8.4

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

Yes

#### 8.4a

Please complete the table

Source	Scope	Explain why the source is excluded
All properties outside of Canada	Scope 1 and 2	No utility reporting available in a format that could support credible public reporting
Major properties in Canada	Scope 1 and 2	No utility reporting available in a format that could support credible public reporting
Data centres and processing facilities in Canada	Scope 1 and 2	No utility reporting available in a format that could support credible public reporting

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

### 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	Uncertainty Range	Main sources of uncertainty	Main sources of uncertainty
Scope 1	More than 2% but less than or equal to 5%	Data Management	In 2007, energy consumption is based on actual consumption taken from utility bills and direct meters. We did not extrapolate data. We reported scope 1 emissions for our Canadian retail branch network only, which represented approximately 35% of our global floor area. At the time, utility data for our United States, British Isles, Caribbean and other international locations was not available in a format that could support credible public reporting.
Scope 2	More than 2% but less than or equal to 5%	Data Management	In 2007, energy consumption is based on actual consumption taken from utility bills and direct meters. We did not extrapolate data. We reported scope 2 emissions for our Canadian retail branch network only, which represented approximately 35% of our global floor area. At the time, utility data for our United States, British Isles, Caribbean and other international locations was not available in a format that could support credible public reporting.

### 8.6

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

Not verified or assured

#### 8.6a

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

#### 8.6b

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

Type of verification or assurance	Relevant standard	Relevant statement attached
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### 8.7

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

Not verified or assured

#### 8.7a

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

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

### 8.7b

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

Type of verification or assurance	Relevant standard	Relevant statement attached
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### 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 CO<sub>2</sub>e

#### Further Information

In 2007, we reduced GHG emissions by purchasing certified green electricity from Bullfrog Power. At the end of October 2007 (fiscal year), we had 23 Canadian branches powered by 2,831 MWh of certified “green” emission-free power, representing a GHG emissions reduction of approximately 1,680 tonnes annually. This carbon reduction has NOT been applied to the figures presented above. Please see our 2007 RBC Corporate Responsibility Report attached — emissions data is presented in page 27.

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

### Emissions Data - (1 Nov 2007 - 1 Nov 2008)

#### 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

27619

#### 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
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#### 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) - Total Part 1	Comment
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#### 8.2d

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

Gross global Scope 1 emissions (metric tonnes CO2e) - Other operationally controlled entities, activities or facilities	Comment
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#### 8.3a

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

109771

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

### 8.3c

Please provide your gross global Scope 2 emissions figures in metric tonnes CO<sub>2</sub>e - Part 1 Total

Gross global Scope 2 emissions (metric tonnes CO <sub>2</sub> e) - Total Part 1	Comment
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### 8.3d

Please provide your gross global Scope 2 emissions figures in metric tonnes CO<sub>2</sub>e - Part 2

Gross global Scope 1 emissions (metric tonnes CO <sub>2</sub> e) - Other operationally controlled entities, activities or facilities	Comment
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### 8.4

Are there 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	Comment
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### 8.4

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

Yes

#### 8.4a

Please complete the table

Source	Scope	Explain why the source is excluded
Some US properties	Scope 1 and 2	No utility reporting available in a format that could support credible public reporting
All international properties located outside of North America and the British Isles	Scope 1 and 2	No utility reporting available in a format that could support credible public reporting

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

### 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	Uncertainty Range	Main sources of uncertainty	Please expand on the uncertainty in your data
Scope 1	More than 2% but less than or equal to 5%	Data Management	In 2008, energy consumption is based on actual consumption taken from utility bills and direct meters. We did not extrapolate data. We had enhanced utility data reporting across RBC in 2008, which resulted in a significant increase in data coverage compared to the previous year (65% of total global floor area). 2008 was the first year RBC was able to track and report scope 1 emissions for our major leased premises in Canada, the United States and the British Isles. We were also able to track and report emissions from energy consumption for our key data and processing centres: facilities that use large quantities of purchased electricity. Gaps in utility data were associated with properties in some parts of the United States, the Caribbean and other international locations where there was a lack of reporting or data was not available in a format that could support credible public reporting.
Scope 2	More than 2% but less than or equal to 5%		In 2008, energy consumption is based on actual consumption taken from utility bills and direct meters. We did not extrapolate data. We had enhanced utility data reporting across RBC in 2008, which resulted in a significant increase in data coverage compared to the previous year (65% of total global floor area). 2008 was the first year RBC was able to track and report scope 2 emissions for our major leased premises in Canada, the United States and the British Isles. We were also able to track and report emissions from energy consumption for our key data and processing centres: facilities that use large quantities of purchased electricity. Gaps in utility data were associated with properties in some parts of the United States, the Caribbean and other international locations where there was a lack of reporting or data was not available in a format that could support credible public reporting.

### 8.6

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

Not verified or assured

#### 8.6a

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

#### 8.6b

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

Type of verification or assurance	Relevant standard	Relevant statement attached
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## Module: GHG Emissions Accounting, Energy and Fuel Use and Trading [Investor]

### 8.7

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

Not verified or assured

### 8.7a

Please indicate the proportion of your Scope 2 emissions that are verified/assured<sup>8.7b</sup>

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

Type of verification or assurance	Relevant standard	Relevant statement attached
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### 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 CO<sub>2</sub>e

### Further Information

In 2008, we reduced GHG emissions by purchasing certified green electricity from Bullfrog Power. At the end of October 2008 (fiscal year), we had 76 Canadian branches powered by over 5,000 MWh of certified “green” emission-free power, which represents a GHG emissions reduction of approximately 2,095 tonnes annually. This carbon reduction has NOT been applied to the figures presented above. Please see our 2008 RBC Corporate Responsibility Report attached - emissions data is presented in page 43-44.

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

### Emissions Data - (1 Nov 2008 - 1 Nov 2009)

#### 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 CO<sub>2</sub>e

33482

#### 8.2b

Please provide your gross global Scope 1 emissions figures in metric tonnes CO<sub>2</sub>e - Part 1 breakdown

Boundary	Gross global Scope 1 emissions (metric tonnes CO <sub>2</sub> e)	Comment
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#### 8.2c

Please provide your gross global Scope 1 emissions figures in metric tonnes CO<sub>2</sub>e - Part 1 Total

Gross global Scope 1 emissions (metric tonnes CO <sub>2</sub> e) - Total Part 1	Comment
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#### 8.2d

Please provide your gross global Scope 1 emissions figures in metric tonnes CO<sub>2</sub>e - Part 2

Gross global Scope 1 emissions (metric tonnes CO <sub>2</sub> e) - Other operationally controlled entities, activities or facilities	Comment
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#### 8.3a

Please provide your gross global Scope 2 emissions figure in metric tonnes CO<sub>2</sub>e

178080

#### 8.3b

Please provide your gross global Scope 2 emissions figures in metric tonnes CO<sub>2</sub>e - Part 1 breakdown

Boundary	Gross global Scope 2 emissions (metric tonnes CO <sub>2</sub> e)	Comment
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## Module: GHG Emissions Accounting, Energy and Fuel Use and Trading [Investor]

### 8.3c

Please provide your gross global Scope 2 emissions figures in metric tonnes CO<sub>2</sub>e - Part 1 Total

Gross global Scope 2 emissions (metric tonnes CO <sub>2</sub> e) - Total Part 1	Comment
---	---------

### 8.3d

Please provide your gross global Scope 2 emissions figures in metric tonnes CO<sub>2</sub>e - Part 2

Gross global Scope 2 emissions (metric tonnes CO <sub>2</sub> e) - Other operationally controlled entities, activities or facilities	Comment
--	---------

### 8.4

Are there 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
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### 8.4

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

Yes

#### 8.4a

Please complete the table

Source	Scope	Explain why the source is excluded
All international properties located outside of North America and the British Isles	Scope 1 and 2	No utility reporting available in a format that could support credible public reporting

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

### 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	Uncertainty Range	Main sources of uncertainty	Please expand on the uncertainty in your data
Scope 1	More than 2% but less than or equal to 5%	Extrapolation Data Management	In 2009, we expanded our energy data coverage to 94% of our global floor area, compared to 65% in 2008. We measured and reported 100% of our scope 1 emissions for all properties located in Canada and the United States. Gaps in utility data were associated with properties in the Caribbean and other international locations where there was a lack of reporting or data was not available in a format that could support credible public reporting. In 2009 we developed a new property classification called "data centres and processing centres" to better understand the unique energy footprint associated with these properties. The classification represents a total of 11 properties.
Scope 2	More than 2% but less than or equal to 5%	Extrapolation Data Management	In 2009, we expanded our energy data coverage to 94% of our global floor area, compared to 65% in 2008. We measured and reported 100% of our scope 2 emissions for all properties located in Canada and the United States. Gaps in utility data were associated with properties in the Caribbean and other international locations where there was a lack of reporting or data was not available in a format that could support credible public reporting. In 2009 we developed a new property classification called "data centres and processing centres" to better understand the unique energy footprint associated with these properties. The classification represents a total of 11 properties.

### 8.6

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

Not verified or assured

#### 8.6a

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

#### 8.6b

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

Type of verification or assurance	Relevant standard	Relevant statement attached
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### 8.7

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

Not verified or assured

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

### 8.7a

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

### 8.7b

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

Type of verification or assurance	Relevant standard	Relevant statement attached
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### 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 CO<sub>2</sub>e

#### Further Information

We reduced GHG emissions by purchasing certified green electricity from Bullfrog Power. At the end of October 2009 (fiscal year), we had 96 Canadian branches powered by over 8,000 MWh of certified "green" emission-free power, which represents a GHG emissions reduction of approximately 2,749 tonnes annually. This carbon reduction has NOT been applied to the figures presented above. Please see our 2009 RBC Corporate Responsibility Report attached - emissions data and discussion is presented in page 51-53.

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

### Emissions Data - (1 Nov 2009 - 1 Nov 2010)

#### 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

33136

#### 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
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#### 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) - Total Part 1	Comment
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#### 8.2d

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

Gross global Scope 1 emissions (metric tonnes CO2e) - Other operationally controlled entities, activities or facilities	Comment
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#### 8.3a

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

169340

#### 8.3b

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

Boundary	Gross global Scope 1 emissions (metric tonnes CO2e)	Comment
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## Module: GHG Emissions Accounting, Energy and Fuel Use and Trading [Investor]

### 8.3c

Please provide your gross global Scope 2 emissions figures in metric tonnes CO<sub>2</sub>e - Part 1 Total

Gross global Scope 2 emissions (metric tonnes CO <sub>2</sub> e) - Total Part 1	Comment
---	---------

### 8.3d

Please provide your gross global Scope 2 emissions figures in metric tonnes CO<sub>2</sub>e - Part 2

Gross global Scope 2 emissions (metric tonnes CO <sub>2</sub> e) - Other operationally controlled entities, activities or facilities	Comment
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### 8.4

Are there 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
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### 8.4

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

Yes

#### 8.4a

Please complete the table

Source	Scope	Explain why the source is excluded
All international properties located outside of North America and the British Isles	Scope 1 and 2	No utility reporting available in a format that could support credible public reporting

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

### 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	Uncertainty Range	Main sources of uncertainty	Please expand on the uncertainty in your data
Scope 1	More than 2% but less than or equal to 5%	Extrapolation Data Management	Since 2009, we have been able to measure and report on scope 1 emissions for 100% of our properties located in Canada, the U.S. and the British Isles. Current gaps in energy data are associated with properties in the Caribbean and other international locations where there was a lack of reporting or data was not available in a format that could support credible public reporting. Our energy footprint is based on three categories of data: Metered: Properties where metered energy consumption is billed directly from a utility or landlord. Prorated estimated: Major properties that do not have metered data, but where the landlord has provided consumption data for the entire building that is prorated to the area we occupy. Proxy estimated: Energy consumption is calculated using averaged metered data for comparable buildings and applied based on the area RBC occupies.
Scope 2	More than 2% but less than or equal to 5%	Extrapolation Data Management	Since 2009, we have been able to measure and report on scope 2 emissions for 100% of our properties located in Canada, the U.S. and the British Isles. Current gaps in energy data are associated with properties in the Caribbean and other international locations where there was a lack of reporting or data was not available in a format that could support credible public reporting. Our energy footprint is based on three categories of data: Metered: Properties where metered energy consumption is billed directly from a utility or landlord. Prorated estimated: Major properties that do not have metered data, but where the landlord has provided consumption data for the entire building that is prorated to the area we occupy. Proxy estimated: Energy consumption is calculated using averaged metered data for comparable buildings and applied based on the area RBC occupies.

### 8.6

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

Not verified or assured

#### 8.6a

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

#### 8.6b

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

Type of verification or assurance	Relevant standard	Relevant statement attached
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## Module: GHG Emissions Accounting, Energy and Fuel Use and Trading [Investor]

### 8.7

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

Not verified or assured

### 8.7a

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

### 8.7b

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

Type of verification or assurance	Relevant standard	Relevant statement attached
-----------------------------------	-------------------	-----------------------------

### 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 CO<sub>2</sub>e

### Further Information

We reduced GHG emissions by purchasing certified green electricity from Bullfrog Power. At the end of October 2010 (fiscal year), we had 124 Canadian branches powered by over 11,200 MWh of certified “green” emission-free power, which represents a GHG emissions reduction of over 3,300 tonnes annually. This carbon reduction has NOT been applied to the figures presented above. Please see our 2010 RBC Corporate Responsibility Report attached - emissions data and discussion is presented in page 70-73.

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

### Scope 1 Emissions Breakdown - (1 Nov 2006 - 1 Nov 2007)

#### 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 CO <sub>2</sub> e
Canada	11336

#### 9.2

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

By facility

By activity

#### 9.2d

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

Activity	Scope 1 metric tonnes CO <sub>2</sub> e
Property heating	11336

#### Further Information

RBC branches are categorized as RBC-owned or -leased properties with an area of less than 25,000 ft<sup>2</sup> (<2,320 m<sup>2</sup>). Please see our 2007 RBC Corporate Responsibility Report attached — emissions data is presented in page 27.

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

### Scope 1 Emissions Breakdown - (1 Nov 2007 - 1 Nov 2008)

#### 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 CO <sub>2</sub> e
Canada	23464
United States of America	4007
United Kingdom	78
Jersey	1
Guernsey	69

#### 9.2

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

By facility

By activity

#### 9.2b

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

Facility	Scope 1 metric tonnes CO <sub>2</sub> e
Branches	12447
Major properties	15172

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

### 9.2d

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

Activity	Scope 1 metric tonnes CO2e
Property heating	27619

### Further Information

Major properties are categorized as facilities with an area greater than 25,000 ft<sup>2</sup> (>2,320 m<sup>2</sup>) and branches are categorized as RBC-owned or -leased properties with an area of less than 25,000 ft<sup>2</sup> (<2,320 m<sup>2</sup>).

Please see our 2008 RBC Corporate Responsibility Report attached - emissions data is presented in page 43-44.

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

### Scope 1 Emissions Breakdown - (1 Nov 2008 - 1 Nov 2009)

#### 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	29273
United States of America	3812
United Kingdom	209
Jersey	1
Guernsey	187

#### 9.2

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

By facility

By activity

#### 9.2b

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

Facility	Scope 1 metric tonnes CO2e
Branches	16338
Major properties	16494
Data centres and processing centres	650

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

### 9.2d

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

Activity	Scope 1 metric tonnes CO2e
Property heating	33482

### Further Information

Major properties are categorized as facilities with an area greater than 25,000 ft<sup>2</sup> (>2,320 m<sup>2</sup>) and branches are categorized as RBC-owned or -leased properties with an area of less than 25,000 ft<sup>2</sup> (<2,320 m<sup>2</sup>).

In 2009 we developed a new property classification called “data centres and processing centres” to better understand the unique energy and GHG footprint associated with these properties. In 2009, data centres and processing centres consisted of 11 properties across Canada, the U.S. and the British Isles, containing operational processes and equipment that have high electricity demands.

Please see our 2009 RBC Corporate Responsibility Report attached - emissions data is presented in page 51-54.

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

### Scope 1 Emissions Breakdown - (1 Nov 2009 - 1 Nov 2010)

#### 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 CO <sub>2</sub> e
Canada	26521
United States of America	6144
United Kingdom	248
Jersey	1
Guernsey	222

#### 9.2

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

By facility

By activity

#### 9.2b

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

Facility	Scope 1 metric tonnes CO <sub>2</sub> e
Branches	13623
Major properties	18326
Data centres and processing centres	1187

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

### 9.2d

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

Activity	Scope 1 metric tonnes CO2e
Property heating	33136

### Further Information

Major properties are categorized as facilities with an area greater than 25,000 ft<sup>2</sup> (>2,320 m<sup>2</sup>) and branches are categorized as RBC-owned or -leased properties with an area of less than 25,000 ft<sup>2</sup> (<2,320 m<sup>2</sup>).

In 2010, data centres and processing centres consisted of 12 properties across Canada, the U.S. and the British Isles, containing operational processes and equipment that have high electricity demands.

Please see our 2010 RBC Corporate Responsibility Report attached - emissions data is presented in page 70-73.

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

### Scope 2 Emissions Breakdown - (1 Nov 2006 - 1 Nov 2007)

#### 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 CO <sub>2</sub> e
Canada	25088

#### 10.2

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

By facility

By activity

#### 10.2b

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

Facility	Scope 2 metric tonnes CO <sub>2</sub> e
Branches	25088

#### 10.2c

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

Activity	Scope 2 metric tonnes CO <sub>2</sub> e
Electricity	25088

#### Further Information

RBC branches are categorized as RBC-owned or -leased properties with an area of less than 25,000 ft<sup>2</sup> (<2,320 m<sup>2</sup>).

Please see our 2007 RBC Corporate Responsibility Report attached — emissions data is presented in page 27.

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

### Scope 2 Emissions Breakdown - (1 Nov 2007 - 1 Nov 2008)

#### 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 1 metric tonnes CO2e
Canada	66780
United States of America	42036
United Kingdom	375
Jersey	280
Guernsey	300

#### 10.2

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

By facility

By activity

#### 10.2b

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

Facility	Scope 2 metric tonnes CO2e
Branches	49949
Major properties	59822

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

### 10.2c

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

Activity	Scope 2 metric tonnes CO2e
Electricity	109771

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#### Further Information

Major properties are categorized as facilities with an area greater than 25,000 ft<sup>2</sup> (>2,320 m<sup>2</sup>) and branches are categorized as RBC-owned or -leased properties with an area of less than 25,000 ft<sup>2</sup> (<2,320 m<sup>2</sup>).

Please see our 2008 RBC Corporate Responsibility Report attached - emissions data is presented in page 43-44.

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

### Scope 2 Emissions Breakdown - (1 Nov 2008 - 1 Nov 2009)

#### 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 1 metric tonnes CO2e
Canada	97029
United States of America	79523
United Kingdom	987
Jersey	269
Guernsey	272

#### 10.2

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

By facility

By activity

#### 10.2b

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

Facility	Scope 2 metric tonnes CO2e
Branches	96395
Major properties	57440
Data centres and processing centres	24245

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

### 10.2c

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

Activity	Scope 2 metric tonnes CO2e
Electricity	178080

#### Further Information

Major properties are categorized as facilities with an area greater than 25,000 ft<sup>2</sup> (>2,320 m<sup>2</sup>) and branches are categorized as RBC-owned or -leased properties with an area of less than 25,000 ft<sup>2</sup> (<2,320 m<sup>2</sup>).

In 2009 we developed a new property classification called “data centres and processing centres” to better understand the unique energy and GHG footprint associated with these properties. In 2009, data centres and processing centres consisted of 11 properties across Canada, the U.S. and the British Isles, containing operational processes and equipment that have high electricity demands.

Please see our 2009 RBC Corporate Responsibility Report attached - emissions data is presented in page 51-54.

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

### Scope 2 Emissions Breakdown - (1 Nov 2009 - 1 Nov 2010)

#### 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 1 metric tonnes CO2e
Canada	81240
United States of America	86529
United Kingdom	1063
Jersey	236
Guernsey	272

#### 10.2

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

By facility

By activity

#### 10.2b

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

Facility	Scope 2 metric tonnes CO2e
Branches	90632
Major properties	60433
Data centres and processing centres	18275

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

### 10.2c

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

Activity	Scope 2 metric tonnes CO2e
Electricity	169340

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#### Further Information

Major properties are categorized as facilities with an area greater than 25,000 ft<sup>2</sup> (>2,320 m<sup>2</sup>) and branches are categorized as RBC-owned or -leased properties with an area of less than 25,000 ft<sup>2</sup> (<2,320 m<sup>2</sup>).

In 2010, data centres and processing centres consisted of 12 properties across Canada, the U.S. and the British Isles, containing operational processes and equipment that have high electricity demands.

Please see our 2010 RBC Corporate Responsibility Report attached - emissions data is presented in page 70-73.

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

### 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 CO<sub>2</sub>e

#### 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
Other: Green Electricity Certificates (Canada)	3359	Since 2005, RBC has partnered with Bullfrog Power to source EcoLogo-certified green power as part of our goal to reduce carbon emissions associated with our electricity consumption across our Canadian operations. Bullfrog Power purchases Green Electricity Certificates in Canada and retires them on our behalf. At the end of October 2010 (fiscal year), we had 124 Canadian branches powered by over 11,200 MWh of EcoLogo-certified green power, which represents a GHG emissions reduction of 3,359 tonnes in fiscal 2010.

#### Further Information

Please see Bullfrog Power Green Index - RBC is ranked in the top ten consumers of green power sourced by Bullfrog Power <http://www.bullfrogpower.com/powered/greenindex.cfm>

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

### 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	
Electricity	552547
Heat	178971
Steam	
Cooling	

#### 12.3

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

Fuels	MWh
Natural gas	172468
Other: Fuel oil for heating	6249
Propane	254

#### 13.1

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

Decreased

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

### Emissions Performance

#### 13.1a

Please complete the table

Reason	Emissions value (percentage)	Direction of change	Comments
Emissions reduction activities		Decrease	Please see the RBC 2010 Environmental Blueprint Report Card attached for a comprehensive list of programs directed at reducing GHG emissions and energy: <a href="http://www.rbc.com/environment/pdf/2010-RBC-Blueprint-Report-Card.pdf">http://www.rbc.com/environment/pdf/2010-RBC-Blueprint-Report-Card.pdf</a>

#### 13.2

Please describe your gross combined Scope 1 and 2 emissions for the reporting year in metric tonnes CO<sub>2</sub>e per unit currency total revenue

Intensity figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Explanation
0.0000071	metric tonnes CO <sub>2</sub> e	unit total revenue	1.7	Decrease	

#### 13.3

Please describe your gross combined Scope 1 and 2 emissions for the reporting year in metric tonnes CO<sub>2</sub>e per full time equivalent (FTE) employee

Intensity figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Explanation
2.807	metric tonnes CO <sub>2</sub> e	FTE Employee	5.5	Decrease	

#### 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	Explanation
0.092	metric tonnes CO <sub>2</sub> e	square meter	5.7	Decrease	

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

### Emissions Trading

#### 14.1

Do you participate in any emission trading schemes?

Yes

#### 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 CO <sub>2</sub> e	Details of ownership

#### 14.1b

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

RBC is not regulated under any emissions trading schemes but actively participates in carbon markets as a trader and adviser. The majority of the trading volume centers around the European Union Emissions Trading Scheme (EU ETS), the largest compliance market in the world. We also deal in the North American carbon markets. These include: Regional Greenhouse Gas Initiatives (RGGI); Climate Action Reserve; Alberta Offsets and other voluntary markets.

For more information please see RBC Capital Markets Emissions Trading website: <https://www.rbccm.com/carbontrading/>

#### 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 CO <sub>2</sub> e)	Number of credits (metric tonnes CO <sub>2</sub> e): Risk adjusted volume	Number of credits (metric tonnes CO <sub>2</sub> e): Risk adjusted volume	Number of credits (metric tonnes CO <sub>2</sub> e): Risk adjusted volume
Credit Purchase	Other: Mix of projects that qualify as CERs	We purchase CERs through the RBC Emissions Trading desk. RBC completes an OTC sale of spot CERs and sends an International Emissions Trading Association (IETA) "Single Trade Agreement" contract for the trade. The CERs are sourced from a mix of projects that are subjected to a rigorous validation, certification, registration and insurance process designed to ensure real, measurable and verifiable emission reductions that are recognized under the Kyoto Protocol.	Other: Certified emission reduction (CERs) units	925		Yes	Voluntary Offsetting

#### Further Information

For more on RBC Carbon Trading Services see: <https://www.rbccm.com/carbontrading/>

For more on RBC Guaranteed Emissions Retirement Program see: <https://www.rbccm.com/carbontrading/cid-247096.html>

## Module: GHG Emissions Accounting, Energy and Fuel Use and Trading [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
Business travel	25705	Travel data is based on data collection and record keeping practices employed by our third party travel service providers, RBC travel desks and expense claim systems. We track four categories of business travel: air travel, rail travel, business travel in rental vehicles and business travel in personal vehicles. Data coverage for air travel includes all staff in Canada, the U.S. and British Isles, which represent 90% of all RBC staff globally. To view detailed travel metrics please see RBC SOFT Footprint: <a href="http://www.rbc.com/environment/pdf/2010-SOFT-Footprint-Report.pdf">http://www.rbc.com/environment/pdf/2010-SOFT-Footprint-Report.pdf</a>
Transportation and distribution	120000	In 2011, RBC calculated the carbon footprint associated with our Canadian logistics and delivery infrastructure. The baseline assessment that calculated over 700,000 annual deliveries to RBC Canadian properties with associated carbon dioxide equivalent (CO2e) emissions of 120,000 tonnes. Please note that we have yet to report logistics emissions in our SOFT Footprint Report as we only recently completed the baseline assessment.

#### 15.2

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

Not verified or assured

#### 15.2a

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

#### 15.3

How do your absolute Scope 3 emissions for the reporting year compare to the previous year?

Increased

#### 15.3a

Please complete the table

Reason	Emissions value (percentage)	Direction of Change	Comment
Other: Increase amount of business related travel	38	Increase	Travel data is based on data collection and record keeping practices employed by our third party travel service providers, RBC travel desks and expense claim systems. We track four categories of business travel: air travel, rail travel, business travel in rental vehicles and business travel in personal vehicles. Data coverage for air travel includes all staff in Canada, the U.S. and British Isles, which represent 90% of all RBC staff globally. To view detailed travel metrics please see RBC SOFT Footprint: <a href="http://www.rbc.com/environment/pdf/2010-SOFT-Footprint-Report.pdf">http://www.rbc.com/environment/pdf/2010-SOFT-Footprint-Report.pdf</a>

## Module: Sign Off

### Sign Off

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

Sandra Odendahl

Director, Corporate Environmental Affairs

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