

Royal Bank of Canada Carbon Disclosure Project (CDP6) Submission

General Information

It is not a requirement of the CDP questionnaire to give an introduction to your answer, but if you would like to do so, please give it here in the text box below or attach a document.

Royal Bank of Canada (RY on TSX and NYSE) and its subsidiaries operate under the master brand name of RBC. We are Canada's largest bank as measured by assets and market capitalization and one of North America's leading diversified financial services companies. We provide personal and commercial banking, wealth management services, insurance, corporate and investment banking and transaction processing services on a global basis. We employ approximately 75,000 full- and part-time employees who serve more than 16 million personal, business, public sector and institutional clients through Canada, the US, and 45 other countries around the world. For more information, please visit www.rbc.com.

Please note the company turnover figure below is presented as of October 31, 2007.

Where available please can you provide the following identification numbers for your primary listings/ordinary shares and information for your company:

Company Turnover (also known as sales) in millions of US\$

22462

ISIN number

CA780087102

CUSIP number

780087102

SEDOL number

2754383 CA

1 - Risks and Opportunities

Question 1(a)(i) Regulatory Risks

How is your company exposed to regulatory risks related to climate change?

We consider our company to be exposed to regulatory risks because...

We define regulatory risk as the risk of negative impact to business activities, earnings or capital as a result of a failure to comply with or a failure to adapt to current and changing regulation or ethical standards. RBC is a financial institution, with operations that are relatively low-impact with respect to climate change. As a result, we are unlikely to be subjected to CO2 emission regulations, and hence direct regulatory risks to the bank are modest. However, we believe that climate change regulation of many emission intense sectors of the economy will give rise to the following risks for RBC:

Credit Risk: Many of our commercial and corporate clients will be regulated under impending GHG mitigation rules in Canada, the US, and internationally. This will 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.

Market Risk: This is the risk of loss resulting from changes in market factors such as equity or commodity prices, or in the volatility of these factors. As a market maker in CO2 emission markets, RBC will face market risk, which can be exacerbated by thinly-traded or illiquid markets (which will be a characteristic of CO2 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.

Increased Energy Costs: The price of energy may rise if power producers are able to pass on costs associated with their obligation to meet CO2 emission regulations in Canada, the US 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.

Question 1(a)(ii) Physical Risks

How is your company exposed to physical risks from climate change?

We consider our company to be exposed to physical risks because...

RBC occupies more than 1.8 million square meters of office space in Canada and the United States and a small amount in 45 other countries. 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, biological diurnal and seasonal cycle changes, pests, water quality issues and effects on human health. The physical impacts resulting from these events would result in the following risks to RBC:

Business Interruption: We anticipate that our branches and offices located in coastal regions such as the southeastern United States; coastal British Columbia, the Atlantic region and along the St. Lawrence River in Canada; the Caribbean and British Isles are likely more prone to storm damage and flooding than those in southwestern Canada.

Changes to Heating and Cooling Costs: In many of the regions where we operate, we anticipate that heat waves may result in a 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.

Credit Risk: Climate change will affect some of our clients, giving rise to credit risk. In 2002, RBC conducted a research study entitled: "The Effects of Climate Change on Industry Sectors & North American Regions". The risks of climate change for RBC's clients can be divided into two main areas: one, the direct effects on natural resource-based industries; and two, the direct effects on the inputs of manufacturing and production-based industries. The former will be affected by how climate change alters the conditions of the region in which they are located and whether this change will be beneficial, detrimental, and/or require adaptation. The latter will be affected by how much climate change increases the price (and availability) of water, energy and transportation and whether they can successfully adapt to this increase. In addition, the physical impacts of climate change to industries in different regions will vary.

Market Risk: The extreme and volatile weather events resulting from the impacts of climate change are affecting commodity-based sectors such as agriculture and natural resources, among others. This can result in a series of market risks including equity and commodity risk which may affect securities and derivative portfolios.

Question 1(a)(iii) General Risks

How is your company exposed to general risks as a result of climate change?

We consider our company to be exposed to general risks because...

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.

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.

Question 1(a)(iv) Risk Management

Has your company taken or planned action to manage the general and regulatory risks and/or adapt to the physical risks you have identified?

We have taken or planned action.

As described previously, the physical, regulatory and general risks of climate change may give rise to a number of risks for RBC: Credit risk, Market Risk, Reputation Risk, Insurance Risk, higher energy costs, business interruption, and increased insurance claims. RBC strategy for identifying and managing the risks associated with climate change is applied to two priority areas:

- 1) responsible business activities, and
- 2) operational footprint

RESPONSIBLE BUSINESS ACTIVITIES

1. Environmental Credit Risk Policies

We manage the credit risk associated with climate change by incorporating environmental considerations in the review of sectors, borrowers, and transactions. Our environmental credit risk policies cover small and medium business, corporate banking, and project finance, with additional sector specific policies for public sector finance and agriculture.

RBC was the first Canadian bank to sign the Equator Principles in 2003, and we recommitted to the revised Principles in 2006. Under our Policy on Social and Environmental Review in Project Finance, the financing of a new project requires detailed social and environmental review as part of our commitment to the Equator Principles. Under this Policy, the greenhouse gas emission management profile of the project must be assessed and considered as part of the overall project finance decision-making process.

We have carried out a benchmarking study of best practices among European banks for carbon risk assessment in credit risk analysis, and in late 2007 we committed to developing new corporate lending environmental policy that includes climate change, forest biodiversity, and water considerations in the credit risk assessment process.

2. Carbon Risk Assessment of Portfolio

Part of our risk management approach includes a periodic review of our credit portfolio for exposure to carbon risk. In 2004, RBC performed an assessment of our credit portfolio for exposure to carbon risk. At that time, we determined that our exposure to sectors facing the greatest regulatory risk was modest in comparison to our overall portfolio size and quality. Since the weighting of sectors in our credit portfolio has changed since 2004, and since proposed regulatory frameworks have evolved we developed a request for proposal in 2007 to obtain a more detailed carbon risk assessment of our portfolio. However, an ongoing challenge is the lack of regulatory clarity in Canada, and the diversity of provincial, state and regional CO2 frameworks proposed or in place all over North America. This uncertainty raises the question of how to ensure valuable information can be obtained from a detailed portfolio carbon risk study in the face of changing regulations.

3. Sector Specific Responsible Lending and Investment Guidelines:

In late 2007, we committed to developing sector-specific guidelines on the identification, assessment and management of environmental issues in the credit analysis process. The guidelines, which are in the process of being drafted in 2008, include sector specific information on climate change related risks, and best practices for control and mitigation.

4. Portfolio Greenhouse Gas Intensity:

In late 2007, we committed to determining the GHG emission intensity of our portfolio, as an indicator of exposure to CO2-intensive companies and sectors. We are challenged by the fact that there are not unique SIC (standard industry classification) codes for renewable energy or clean technology. This makes a standard portfolio assessment unsuitable for separating high emitting from low emitting companies in, say, the power generating

sector. In 2008, we began testing several methodologies for ongoing reliable, accurate, tracking of portfolio-related GHGs. We will report in 2008.

5. Market Risk Management Expertise:

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, Canada; London, UK; New York, USA; and Sydney, Australia. 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. This group also provides independent oversight on trading activities, including the establishment and administration of trading operational limits, market risk and counterparty credit limit compliance, risk analytics, and the review and oversight of non-traditional or complex transactions.

OPERATIONAL FOOTPRINT

1. Energy Efficiency

As part of our strategy to mitigate the effects of increasing energy costs, we have many programs underway, include Energy smart, LEED Building design, office temperature standards, distributed print initiative, and green meetings. They are described in detail in Section 3-Performance- of this submission.

2. Employee Engagement

To mitigate reputation risks, as well as to offset increasing energy costs, we regularly involve employees in initiatives to conserve energy. One such initiative is the 2-year old Energy Smart program, with conservation information available to employees on the company intranet. Furthermore, we provide a wide-range of environmental information to employees on our company intranet site on: carbon offsets, holding green meetings, what you can do for the environment at work, what you can do at home, etc. We also occasionally broadcast messages via e-mail to all employees on climate-related issues. For example, in December, we informed employees of the best way to shut down electronics for the holidays to minimise energy use and commensurate indirect GHG emissions. In March, we encouraged employees to take part in WWF's Earth Hour.

3. Business Interruption Management

RBC has an enterprise-wide group focusing on management of business disruption risks, including disruptions from weather-related incidents. Any high-risk exposures that we identify are subject to remedial measures, monitoring and control testing. (See Annual Report, page 96)

OTHER CLIMATE CHANGE MANAGEMENT STRATEGIES

1. Stakeholder Engagement

RBC used a comprehensive stakeholder engagement process to help define the nature and scope of our environmental priorities. We consider stakeholder engagement with clients, employees, non-governmental organisations (NGOs) and government to be a cornerstone of our strategic approach. We also provide clients and anyone who visits our website with general information on climate change, how to lower emissions at home, when commuting, and at work. Further information regarding our stakeholder engagement is found at: <http://www.rbc.com/environment/research.html>.

2. Professional Associations

RBC participates in many industry associations and multistakeholder groups to assist us in staying well informed of developments in managing environmental issues such as climate change. We are members of the UN Environment Programme Finance Initiative, and currently co-chair the initiative's North American task Force. Through the UNEP FI, we have access to the publications of the Climate Change working group, which publishes numerous research papers and CEO briefings on climate change related risks and opportunities. We are also members of the Environmental Bankers Association, the Conference Board of Canada's Business Council on Sustainability, and the EXCEL partnership, all of which have covered climate change-related issues in recent meetings and reports.

3. Internal Communications

In 2007, the Corporate Environmental Affairs group gave numerous presentations to RBC business and functional units in Canada and the US on climate change risks and opportunities. We also have a climate change information

section on our company intranet site.

4. Resource allocation

Adequate resources are a signpost of a good environmental management system. RBC maintains three full time professional staff in its Corporate Environmental Affairs unit, with a mandate to lead the identification and management of environmental risks and opportunities in the organisation. Furthermore, we have two additional full time staff devoted to environmentally-related operational issues in North America and the UK.

Would you like to provide any additional information relating to this question that you have not provided elsewhere?

Yes

References:

What You can do for the environment: <http://www.rbc.com/environment/what-you-can-do.html>

Climate Change Info: <http://www.rbc.com/environment/climate-change-issues.html>

Memberships: <http://www.rbc.com/environment/memberships.html#5>

Stakeholder presentations: <http://www.rbc.com/environment/speeches.html>

Question 1(a)(v) Financial and Business implications

How do you assess the current and/or future financial effects of the risks you have identified and how those risks might affect your business?

We assess current and/or future financial effects by...

1. Financial Effects of Credit Risk are assessed through a Carbon Risk Assessment of Portfolio:

ASSESSMENT PROCESS

In 2004, RBC performed an assessment of our credit portfolio for exposure to carbon risk. We examined our exposure to single names in certain sectors that were expected to face regulated caps on CO2 emissions. Since the weighting of sectors in our credit portfolio has changed since 2004, and since proposed regulatory frameworks have evolved, we developed a request for proposal in 2007 to obtain a more detailed carbon risk assessment of our portfolio. This assessment will include a review of input cost effects, and ability of affected sectors to pass on costs.

EFFECT ON BUSINESS:

In 2004, we determined that our exposure to sectors facing the greatest direct regulatory risk was modest in comparison to our overall portfolio. We will summarise and report on the results of our update in 2008.

2. Financial Effects of Rising Energy prices are determined by IT and Procurement Experts:

ASSESSMENT PROCESS:

In calculating project payback periods, projections of energy prices are used to estimate future electricity costs for RBC

FINANCIAL EFFECTS:

Our energy costs per MWh will rise, but we are implementing projects to cause our consumption to fall such as:

EnergySmart Program for employees: This initiative, launched in 2007 on a pilot basis in Ontario, is designed to help employees improve the energy efficiency profile of RBC's branch network. Each of the participating branches has assigned an EnergySmart Champion to disseminate energy management information to employees at their branch. This program is complemented by an enterprise-wide EnergySmart intranet website, which provides RBC employees with energy conservation tips for the office and home. In 2008, we will calculate and report on the energy savings achieved at branches participating in the pilot. We make branch energy use information available to employees on a branch by branch basis on our intranet site.

Leadership in Energy and Environmental Design (LEED) office design: We have 16,500 employees in the downtown Toronto area, representing a full cross-section of our businesses and located in a number of different

properties throughout the downtown core. Our new commercial office tower in downtown Toronto, currently under construction, has been designed to achieve LEED Gold certification. A number of RBC groups will be re-located to this facility from less efficient buildings. We anticipate that this will significantly increase the environmental efficiency of these groups, reducing our overall emissions profile.

Office temperature standards: RBC has recently modified operational standards for office temperatures. The summer temperature operational standards have been increased by 1.5 degrees Celsius and winter standards decreased by the same margin to reduce the heating and cooling requirements of our facilities. We attribute a portion of our energy reductions at our facilities to the program.

Distributed Print Initiative: From 2006 to 2008, RBC reduced the number of departmental print devices by 47%. We replaced old laser printers and photocopiers with Energy Star-rated Multi-functional devices (MFDs) that are connected to the local area network, and have automatic energy saving settings (and default double-sided printing).

Green meetings: In 2007, we launched new corporate guidelines on hosting environmentally sustainable events or meetings. The guidelines include information on purchasing CO2 offsets for meetings, as well as video-conferencing, teleconferencing and other tactics. In 2008, we will report on the emissions impact of this initiative, in terms of increased videoconferencing hours booked, and offsets purchased.

Lighting Upgrades: In 2007, we completed 16 lighting upgrade projects in Canada, involving the replacement of lamps and ballasts and the introduction of additional automated light-control sensors to reduce energy consumption. These projects will result in over 505 megawatts of saved energy and over 105 tonnes of GHG avoided annually.

Question 1(b)(i) Regulatory Opportunities

How do current or anticipated regulatory requirements on climate change offer opportunities for your company?

We consider that current or anticipated regulatory requirements offer opportunities because...

RBC has identified opportunities associated with the regulatory impacts of climate change.

1. Renewable, alternative and clean-technology:

Through RBC Capital Markets Infrastructure Group, our Renewable Energy project financing, advisory and underwriting practice has been involved in approximately \$8.7 billion in transactions including wind, biofuels, geothermal and hydro projects since 2003. These projects have added an estimated 4.0 GW of renewable and alternative power to the global energy grid, the equivalent of powering 870,000 homes.

2. Venture Capital:

RBC Capital Partners maintains our \$50 million Alternative Energy Investment Fund, which invested in approximately 20 alternative energy and clean technology companies, successfully bringing a number of them to market through initial public offerings. Also, RBC continues to be a lead investor in the GEF Clean Technology Fund, to which we are committed through 2008 and beyond.

3. CO2 Emission markets

In 2007, we continued to investigate participation in global CO2 emission markets. We joined the EU ETS registry in 2007, allowing RBC to hold, settle, retire and transfer carbon credits with other registry members in the EU ETS. We introduced a global CO2 trading desk in 2008.

Question 1(b)(ii) Physical Opportunities

How do current or anticipated physical changes resulting from climate change present opportunities for your company?

We consider that current or anticipated physical changes offer opportunities because...

Physical impacts of climate change present opportunities for RBC in the following ways:

1. **INFRASTRUCTURE FINANCE:** 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.

2. **SUPPORT WATER-RELATED ISSUES:** 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. In 2007, RBC announced the Blue Water project, a \$50 million ten year philanthropic commitment to fund water-related causes in Canada, the US and globally. Our first grant, of \$10 million over 10 years, was also announced in 2007, to the Cirque de Soleil One Drop Foundation. (see www.rbc.com/bluewater)

3. **LOWER HEATING 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)

Would you like to provide any additional information relating to this question that you have not provided elsewhere?

Yes

References:

Infrastructure Finance- Utilities and Environmental Services: http://www.rbccm.com/0,,cid-27576_,00.html
Blue Water project: <http://www.rbc.com/bluewater/>

Question 1(b)(iii) General Opportunities

How does climate change present general opportunities for your company?

We consider that climate change offers opportunities because...

Aside from the regulatory and physical opportunities previously mentioned, RBC recognizes the future growth potential of the market for environmentally preferable products and services. In 2007, we undertook an internal review of green financial products and services and engaged a consultant to evaluate market opportunities. We also participated in a United Nations Environment Program Finance Initiative (UNEP FI) initiative to review the best environmental products and services at various banks around the world.

RBC's research shows that our clients generally care about climate change. This concern and viewpoint represents financial, competitive and reputational opportunities for RBC and our clients alike. As such, we offer banking products and services to help them mitigate their impacts on climate change and the environment.

1. In 2007, we launched a suite of environmentally oriented financial product options and services to our clients in retail banking and wealth management. The options included incentives for clients to switch off their paper statements, have a home energy audit, buy a lower emission car and switch to green power. Responses to these products were very positive. For example, we grew the number of client accounts switching from paper statements to electronic statements to over 2 million through this program.

2. RBC offers our clients services that enable them to mitigate their CO2 footprint associated with travel to and from branches. Some of these products include: online banking, electronic statements for accounts, and electronic bill payment solutions.

3. In 2007, RBC became the first major Canadian bank to offer investors the option of socially responsible investing with the launch of the RBC Jantzi Funds, three funds that are screened for environmental, social and governance factors. In both Canada and the United States, RBC also offers access to all recognized socially responsible investment funds for clients who believe these factors should be an important consideration in their investment decisions.

4. Our Socially Responsible Investment Wealth Management Group, based in San Francisco, California, also offers

and delivers solutions for foundations, organizations and high net worth clients. This team's environmental investment strategy includes qualitative screening, a clean technology fund of funds and shareholder engagement.

Would you like to provide any additional information relating to this question that you have not provided elsewhere?

Yes

References:

Environmentally preferable banking: <http://www.rbc.com/environment/choices.html>

Online Banking: <http://www.rbcroyalbank.com/RBC:SFFOEo71A8cAJyDkYRM/online/index.html>

E-Statements: <http://www.rbcroyalbank.com/RBC:SFFOEo71A8cAJyDkYRM/products/deposits/intro-estatemnts.html>

Jantzi SRI Funds: <http://www.rbcam.com/RBC:SFFQil71A8UANaD4Ry0/jantzi/index.html>

SRI Wealth Management: <http://www.rbcfc.com/sri/>

Question 1(b)(iv) Maximizing Opportunities

Do you invest in, or have plans to invest in products and services that are designed to minimize or adapt to the effects of climate change?

Climate change has led to investment or planned investment in order to maximise climate change opportunities.

Yes, we have already invested in products and services that help to minimise climate change effects, and we plan more. See questions 1 (b) i, ii, and iii for details.

Question 1(b)(v) Financial and Business Implications

How do you assess the current and/or future financial effects of the opportunities you have identified and how those opportunities might affect your business?

We assess current and/or future financial effects by...

Financial opportunities of participating in renewable energy, venture capital, infrastructure finance and CO2 markets are assessed in the same manner as RBC's other business opportunities. This includes a Project Evaluation and Approval process, New Business Initiatives approval committee, Risk management approval process, and other approval mechanisms.

2 - Greenhouse Gas (GHG) Emissions Accounting

Question 2(a)(i) Reporting Boundary

Calculation tools that will assist companies in calculating GHG emissions from particular activities, such as the combustion of fuels, production processes, etc can be found at: <http://www.ghgprotocol.org/calculation-tools/all-tools>. Companies new to emissions reporting are strongly recommended to use these tools to assist them in their calculations. If you have used a calculation tool, please list it under the question on methodologies.

Please indicate the category that best describes the company, entities or group for which your response is prepared:

[Companies over which financial control is exercised & per consolidated audited Financial Statements.](#)

Question 2(a)(ii) Reporting Year

Please explicitly state the dates of the accounting year or period for which GHG emissions are reported.

Start date: 01 November 2006

End date: 31 October 2007

Financial accounting year: 01 November 2006

Question 2(a)(iii) Methodology

Please specify the methodology used by your company to calculate GHG emissions.

Please select the methodology that you have used using the radio buttons.

If you have used the GHG Protocol or ISO 14064-1, please also give references to any calculation tools that you have used or an explanation of any calculation methods that you have devised yourself. Please explain the data sources of the Global Warming Potentials and emission factors used in your calculations. If you cannot find a reference for them within a supplied calculation tool, please contact the provider of the calculation tool for the information.

If you have used a methodology that you have devised yourself, please would you explain your methodology, including methods of calculation, and the data sources of the Global Warming Potentials and emission factors.

[The majority of greenhouse gas \(GHG\) emissions are calculated based on the methodologies provided by the Greenhouse Gas Protocol of the World Business Council on Sustainable Development. Further details are presented below:](#)

[Energy consumption: Across the RBC property portfolio there are locations which use natural gas, heating oil and propane for heating purposes. Fuel consumption data is based on data collection and record keeping practices employed by our property management firm CBRE. Emission factors are applied to fuel consumption data to calculate the CO₂e emissions, which are presented below:](#)

| Fuel Type | Emission factor | Units |
|------------------|------------------------|---|
| Natural Gas | 0.00193 | tonnes CO ₂ e/m ³ |
| Heating Oil | 0.00268 | tonnes CO ₂ e/L |
| Propane | 0.00152 | tonnes CO ₂ e/L |

[Electricity consumption: Electricity consumption data is based on data collection and record keeping practices employed by our property management firm CBRE. Emission factors are applied to electricity consumption data to calculate the CO₂e emissions. Emission factors are referenced to Environment Canada's National Inventory Report \(NIR\) issued in April 2008 which provides emission factors for each province and territory based on the mix of power generation. Note that the most updated NIR emission factors are referenced to 2006 and we used 2006 emission factors to calculate 2007 emissions for electricity consumption. The emission factors from the NIR are presented below.](#)

| Province or Territory | Emission Factor | | | Units |
|---------------------------|-----------------|----------|-------------|----------------------|
| | 2004 | 2005 | 2006 & 2007 | |
| Newfoundland and Labrador | 0.000032 | 0.000027 | 0.000015 | tonnes of CO2e / kWh |
| Prince Edward Island | 0.000417 | 0.000217 | 0.000192 | |
| Nova Scotia | 0.000590 | 0.000599 | 0.000549 | |
| New Brunswick | 0.000479 | 0.000473 | 0.000366 | |
| Quebec | 0.000009 | 0.000003 | 0.000006 | |
| Ontario | 0.000200 | 0.000210 | 0.000180 | |
| Manitoba | 0.000010 | 0.000010 | 0.000010 | |
| Saskatchewan | 0.000890 | 0.000790 | 0.000810 | |
| Alberta | 0.000890 | 0.000870 | 0.000930 | |
| British Columbia | 0.000020 | 0.000020 | 0.000020 | |
| Yukon, NWT and Nunavut | 0.000110 | 0.000080 | 0.000080 | |

Employee travel: Employee business travel by rail and air is tracked centrally by our procurement team who works with our employee travel partners in Canada, the US, and the UK. Employee travel by car is tracked based on mileage claims submitted by employees globally. Emission factors are applied to travel data to calculate the CO2 emissions. Emission factors are referenced to the CO2 Emissions from Business Travel (Developed by World Resources Institute (WRI) available at www.ghgprotocol.org). The emission factors from the WRI used in our calculations are presented are the following page.

| Method of Travel | Emission Factor | Units |
|------------------|-----------------|----------------------------|
| Air | 0.1194 | kg of CO2 per passenger km |
| Rail | 0.1033 | kg of CO2 per passenger km |
| Automotive | 0.1900 | kg of CO2 per passenger km |

Renewable energy: Energy generation from renewables vary by Province / Territory in Canada. RBC collects data on our electricity purchases by Province / Territory and then determines the quantity of our electricity purchases that comes from renewable sources know the power generation mix in each Province / Territory. The percentage of renewable energy from each Province / Territory is presented below (please note these percentages are approximates and based on publicly available government data).

| Province or Territory | Percentage of Electricity Generation from Renewables |
|---------------------------|--|
| Newfoundland and Labrador | 90% |
| Prince Edward Island | 7% |
| Nova Scotia | 12% |
| New Brunswick | 27% |
| Quebec | 97% |
| Ontario | 22% |
| Manitoba | 91% |
| Saskatchewan | 30% |
| Alberta | 13% |
| British Columbia | 96% |
| Yukon, NWT and Nunavut | 100% |

Paper: RBC collects data on office paper use and paper used in direct mail. Using the Environmental Defense Paper Calculator, we can calculate our indirect GHG emissions associated with our paper usage. For more details on the calculation methodology employed by Environmental Defense Paper Calculator please refer to their website (<http://www.edf.org/papercalculator/>)

Question 2(b)(i) Scope 1 and Scope 2 of GHG Protocol

Are you able to provide a breakdown of your direct and indirect emissions under Scopes 1 and 2 of the GHG Protocol and to analyse your electricity consumption?

Question 2(b)(i)(y) Scope 1 and Scope 2 of GHG Protocol - Year 1 answers

31B Please enter the dates for the reporting period that you specified in (answer to question 2(a)(i)) , and then answer the questions for that period. By selecting the 'Add Additional Year Figures' button at the end of this webpage, you can repeat the process for the previous reporting period, and then for the reporting period before that, and so on. If possible, please give data going back to the reporting period ending in 2004. You do not have to enter historical data if you have already reported this information in response to previous CDP questionnaires.

Please enter the accounting year used to report GHG emissions details below.

Start date: 01 November 2006

End date: 31 October 2007

Scope 1 Direct GHG Emissions: Please provide:

a. Total global Scope 1 activity in Metric Tonnes CO2-e emitted.

11336 CO2e metric tonnes

b. Total Scope 1 activity in Metric Tonnes CO2-e emitted for Annex B countries.

11336 CO2e metric tonnes

By country - Scope 1 activity in metric tonnes of CO2-e by individual country

Using the same methodology please state your emissions per country. NB : If it is not practical for you to list emissions on a full country by country basis, please list here countries with significant emissions in the context of your business and combine the remainder under 'rest of world'. If you already have this information in another format (e.g Excel) please attach it.

| Country | Scope 1 Emissions (metric tonnes CO2-e) |
|---------|--|
|---------|--|

| | |
|--------|-------|
| Canada | 11336 |
|--------|-------|

Scope 2 - Indirect GHG emissions: Please provide:

c. Total global Scope 2 activity in metric tonnes CO2-e emitted

31987 CO2e metric tonnes

d. Total Scope 2 activity in metric tonnes CO2-e emitted for Annex B countries

31987 CO2e metric tonnes

By country - Scope 2 activity in metric tonnes of CO2-e by individual country

| Country | Scope 2 Emissions (metric tonnes CO2-e) |
|---------|--|
|---------|--|

| | |
|--------|-------|
| Canada | 31987 |
|--------|-------|

Electricity consumption

e. Total global MWh of purchased electricity

137369 MWh

f. Total MWh of purchased electricity for Annex B countries

137369 MWh

By country & MWh of purchased electricity by individual country.

Country

Canada 137369

g. Total global MWh of purchased electricity from renewable sources

67925 MWh

h. Total MWh of purchased electricity from renewable sources for Annex B countries

67925 MWh

By country & MWh of purchased electricity from renewable sources by individual country.

Country

Canada 67925

Would you like to provide any additional information relating to this question that you have not provided elsewhere?

Yes

Please note the following comments regarding the energy data presented:

- Energy consumption data applies to Canadian branch operations only
- Data coverage for 2007 is 35% - coverage is presented as a percentage of total global floor area
- The calculation of energy consumption from renewable sources is a function of green power purchases and determining the proportion of renewable power generation in each Canadian province and applying said proportions to our electricity purchases. Note this percentage only applies to electricity purchases at Canadian branches.
- In 2007, RBC purchased 3202 MWh of green power from Bullfrog Power and BC Hydro.

Please note the following comments regarding the Scope 1 data presented:

- Direct energy consumption (Scope 1) refers to RBCs use of combustible hydrocarbons (natural gas, heating oil and propane) at some of our branches.

Question 2(b)(i)(y) Scope 1 and Scope 2 of GHG Protocol - Year 2 answers

Please enter the dates for the reporting period that you specified in (answer to question 2(a)(i)) , and then answer the questions for that period. By selecting the 'Add Additional Year Figures' button at the end of this webpage, you can repeat the process for the previous reporting period, and then for the reporting period before that, and so on. If possible, please give data going back to the reporting period ending in 2004. You do not have to enter historical data if you have already reported this information in response to previous CDP questionnaires.

Please enter the accounting year used to report GHG emissions details below.

Start date: 01 November 2005

End date: 31 October 2006

Scope 1 Direct GHG Emissions: Please provide:

a. Total global Scope 1 activity in Metric Tonnes CO₂-e emitted.

9210 CO₂e metric tonnes

b. Total Scope 1 activity in Metric Tonnes CO₂-e emitted for Annex B countries.

9210 CO₂e metric tonnes

By country - Scope 1 activity in metric tonnes of CO₂-e by individual country

Using the same methodology please state your emissions per country. NB : If it is not practical for you to list emissions on a full country by country basis, please list here countries with significant emissions in the context of your business and combine the remainder under &rest of world&. If you already have this information in another format (e.g Excel) please attach it.

| Country | Scope 1 Emissions (metric tonnes CO₂-e) |
|----------------|---|
|----------------|---|

| | |
|--------|------|
| Canada | 9210 |
|--------|------|

Scope 2 - Indirect GHG emissions: Please provide:

c. Total global Scope 2 activity in metric tonnes CO₂-e emitted

29703 CO₂e metric tonnes

d. Total Scope 2 activity in metric tonnes CO₂-e emitted for Annex B countries

29703 CO₂e metric tonnes

By country - Scope 2 activity in metric tonnes of CO₂-e by individual country

| Country | Scope 2 Emissions (metric tonnes CO₂-e) |
|----------------|---|
|----------------|---|

| | |
|--------|-------|
| Canada | 29703 |
|--------|-------|

Electricity consumption

e. Total global MWh of purchased electricity

130726 MWh

f. Total MWh of purchased electricity for Annex B countries

130726 MWh

By country & MWh of purchased electricity by individual country.

Country

Canada 130726

g. Total global MWh of purchased electricity from renewable sources

67680 MWh

h. Total MWh of purchased electricity from renewable sources for Annex B countries

67680 MWh

By country & MWh of purchased electricity from renewable sources by individual country.

Country

Canada 67680

Would you like to provide any additional information relating to this question that you have not provided elsewhere?

Yes

Please note the following comments regarding the energy data presented:

- Energy consumption data applies to Canadian branch operations only
- Data coverage for 2006 is 34% - coverage is presented as a percentage of total global floor area
- The calculation of energy consumption from renewable sources is a function of green power purchases and determining the proportion of renewable power generation in each Canadian province and applying said proportions to our electricity purchases. Note this percentage only applies to electricity purchases at Canadian branches.
- In 2006, RBC purchased 1000 MWh of green power from Bullfrog Power and BC Hydro.

Please note the following comments regarding the Scope 1 data presented:

- Direct energy consumption (Scope 1) refers to RBCs use of combustible hydrocarbons (natural gas, heating oil and propane) at some of our branches.

Question 2(b)(i)(y) Scope 1 and Scope 2 of GHG Protocol - Year 3 answers

Please enter the dates for the reporting period that you specified in (answer to question 2(a)(i)) , and then answer the questions for that period. By selecting the &Add Additional Year Figures& button at the end of this webpage, you can repeat the process for the previous reporting period, and then for the reporting period before that, and so on. If possible, please give data going back to the reporting period ending in 2004. You do not have to enter historical data if you have already reported this information in response to previous CDP questionnaires.

Please enter the accounting year used to report GHG emissions details below.

Start date: 01 November 2004

End date: 31 October 2005

Scope 1 Direct GHG Emissions: Please provide:

a. Total global Scope 1 activity in Metric Tonnes CO₂-e emitted.

10696 CO₂e metric tonnes

b. Total Scope 1 activity in Metric Tonnes CO₂-e emitted for Annex B countries.

10696 CO₂e metric tonnes

By country - Scope 1 activity in metric tonnes of CO₂-e by individual country

Using the same methodology please state your emissions per country. NB : If it is not practical for you to list emissions on a full country by country basis, please list here countries with significant emissions in the context of your business and combine the remainder under &rest of world&. If you already have this information in another format (e.g Excel) please attach it.

| Country | Scope 1 Emissions (metric tonnes CO₂-e) |
|----------------|---|
|----------------|---|

| | |
|--------|-------|
| Canada | 10696 |
|--------|-------|

Scope 2 - Indirect GHG emissions: Please provide:

c. Total global Scope 2 activity in metric tonnes CO₂-e emitted

34981 CO₂e metric tonnes

d. Total Scope 2 activity in metric tonnes CO₂-e emitted for Annex B countries

34981 CO₂e metric tonnes

By country - Scope 2 activity in metric tonnes of CO₂-e by individual country

| Country | Scope 2 Emissions (metric tonnes CO₂-e) |
|----------------|---|
|----------------|---|

| | |
|--------|-------|
| Canada | 34981 |
|--------|-------|

Electricity consumption

e. Total global MWh of purchased electricity

140534 MWh

f. Total MWh of purchased electricity for Annex B countries

140534 MWh

By country & MWh of purchased electricity by individual country.

| Country |
|----------------|
|----------------|

| | |
|--------|--------|
| Canada | 140534 |
|--------|--------|

g. Total global MWh of purchased electricity from renewable sources

69120 MWh

h. Total MWh of purchased electricity from renewable sources for Annex B countries

69120 MWh

By country & MWh of purchased electricity from renewable sources by individual country.

Country

Canada 69120

Would you like to provide any additional information relating to this question that you have not provided elsewhere?

Yes

Please note the following comments regarding the energy data presented:

- Energy consumption data applies to Canadian branch operations only
- Data coverage for 2005 is 33% - coverage is presented as a percentage of total global floor area
- The calculation of energy consumption from renewable sources is a function of green power purchases and determining the proportion of renewable power generation in each Canadian province and applying said proportions to our electricity purchases. Note this percentage only applies to electricity purchases at Canadian branches.
- In 2005, RBC purchased 1530 MWh of green power from Bullfrog Power and BC Hydro.

Please note the following comments regarding the Scope 1 data presented:

- Direct energy consumption (Scope 1) refers to RBCs use of combustible hydrocarbons (natural gas, heating oil and propane) at some of our branches.

Question 2(b)(i)(y) Scope 1 and Scope 2 of GHG Protocol - Year 4 answers

Please enter the dates for the reporting period that you specified in (answer to question 2(a)(i)) , and then answer the questions for that period. By selecting the 'Add Additional Year Figures' button at the end of this webpage, you can repeat the process for the previous reporting period, and then for the reporting period before that, and so on. If possible, please give data going back to the reporting period ending in 2004. You do not have to enter historical data if you have already reported this information in response to previous CDP questionnaires.

Please enter the accounting year used to report GHG emissions details below.

Start date: 01 November 2003

End date: 31 October 2004

Scope 1 Direct GHG Emissions: Please provide:

a. Total global Scope 1 activity in Metric Tonnes CO2-e emitted.

11181 CO2e metric tonnes

b. Total Scope 1 activity in Metric Tonnes CO2-e emitted for Annex B countries.

11181 CO2e metric tonnes

By country - Scope 1 activity in metric tonnes of CO2-e by individual country

Using the same methodology please state your emissions per country. NB : If it is not practical for you to list emissions on a full country by country basis, please list here countries with significant emissions in the context of your business and combine the remainder under 'rest of world'. If you already have this information in another format (e.g Excel) please attach it.

**Country Scope 1 Emissions
(metric tonnes CO2-e)**

Canada 11181

Scope 2 - Indirect GHG emissions: Please provide:

c. Total global Scope 2 activity in metric tonnes CO2-e emitted

36523 CO2e metric tonnes

d. Total Scope 2 activity in metric tonnes CO2-e emitted for Annex B countries

36523 CO2e metric tonnes

By country - Scope 2 activity in metric tonnes of CO2-e by individual country

**Country Scope 2 Emissions
(metric tonnes CO2-e)**

Canada 36523

Electricity consumption

e. Total global MWh of purchased electricity

143221 MWh

f. Total MWh of purchased electricity for Annex B countries

143221 MWh

By country & MWh of purchased electricity by individual country.

Country

Canada 143221

g. Total global MWh of purchased electricity from renewable sources

69534 MWh

h. Total MWh of purchased electricity from renewable sources for Annex B countries

69534 MWh

By country & MWh of purchased electricity from renewable sources by individual country.

Country

Canada 69534

Would you like to provide any additional information relating to this question that you have not provided elsewhere?

Yes

Please note the following comments regarding the energy data presented:

- Energy consumption data applies to Canadian branch operations only
- Data coverage for 2004 is 33% - coverage is presented as a percentage of total global floor area
- The calculation of energy consumption from renewable sources is a function of green power purchases and determining the proportion of renewable power generation in each Canadian province and applying said proportions to our electricity purchases. Note this percentage only applies to electricity purchases at Canadian branches.
- In 2004, RBC purchased 640 MWh of green power from Bullfrog Power and BC Hydro

Please note the following comments regarding the Scope 1 data presented:

- Direct energy consumption (Scope 1) refers to RBCs use of combustible hydrocarbons (natural gas, heating oil and propane) at some of our branches.

Question 2(b)(ii) Scopes 1 and 2 of GHG Protocol

If you are unable to detail your Scope 1 and Scope 2 GHG emissions and/or electricity consumption, please report the GHG emissions you are able to identify together with a description of those emissions. If you have answered 2(b)(i), please go to question 2(c)(i).

Question 2(c)(i) Other Emissions & Scope 3 of GHG Protocol

How do you identify and/or measure Scope 3 emissions?

We consider RBC's Scope 3 emissions to principally include:

1. emissions associated with our use of paper - in our own offices and for mailings to customers, and
2. employee business travel.

As we are a financial service company, emissions associated with the use of our products and services are very small, encompassing for example, the CO2 emissions associated with travel by clients to our branches. This indirect CO2 contribution is diminishing every year as more clients make use of online banking and Automatic Teller Machines near their places of business and near their homes.

Similarly, our financial products and services are distributed in person, by post, courier, and electronically. We do not have a large CO2 footprint associated with distribution, other than possibly our share of the CO2 emissions associated with the use of mail service to send out information to clients and other households. Again, as we move toward electronic delivery of statements and online banking services, our indirect contribution to this type of CO2 emission is dropping.

Please provide where possible:

- a. Details of the most significant Scope 3 sources for your company.

GHG emissions associated with paper use, in our own offices and in our mailing to households, were approximately 26,600 tonnes in 2007.

RBC currently tracks employee business travel for approximately 95% of our staff. Our business travel-related GHG emissions for 2007 were 17,054 tonnes, from air, rail, and car travel in Canada and the US, and car travel globally.

- b. Details in metric tonnes CO2-e of GHG emissions in the following categories:

- i Employee business travel.

17054 CO2e metric tonnes

ii External distribution/logistics

iii Use/disposal of company's products and services.

iv Company supply chain.

26604 CO2e metric tonnes

c. Details of the methodology you use to quantify or estimate Scope 3 emissions.

We used the Environmental Defense paper calculator to determine our paper-related GHG emissions for 2007, applied to our use of office paper and direct mail paper. We believe this gives an overestimate of our emissions associated with these paper types. This is due to the fact that the ED calculator uses CO2 emission factors for US paper supply, and Canadian pulp and paper mills are more likely to use non-CO2-emitting energy, such as hydroelectric power.

We used the GHG protocol of the WBCSD to determine GHG emissions from employee travel. Employee business travel by rail and air is tracked centrally by our procurement team who works with our employee travel partners in Canada, the US, and the UK. We track employee travel by car based on mileage claims submitted by employees globally.

Question 2(d) External Verification

(i) Has the information reported in response to Questions 2(b)- (c) been externally verified or audited or do you plan to have the information verified or audited?

No (Please go to question 2 (e))

(ii) If your answer to question 2d(i) is Yes, please provide or attach a copy of the audit or verification statement or state your plans for verification.

(iii) Please specify the standard or protocol against which the information has been audited or verified.

Question 2(e) Data Accuracy

Does your company have a system in place to assess the accuracy of GHG emissions inventory calculation methods, data processes and other systems relating to GHG measurement? If so, please provide details. If not, please explain how data accuracy is managed.

Yes, we do have a system.

Data and calculation methods are reviewed by at least 2 environmental professionals in the organisation, and typically three, after data is sent to Corporate Environmental Affairs by the data provider. Obvious data outliers are removed from summaries and calculations, affecting our percent coverage, but increasing accuracy.

The environmental risk management aspect of our EMS is monitored by RBC's internal audit group, Internal Audit Services (IAS), responsible for overseeing compliance with all RBC internal policies including social and environmental. IAS also audits the system used by RBC Corporate Real Estate to ensure compliance by RBC's facility management firm with our Operational Control Procedures. Internal Audit Services is part of the Audit Committee, which is chaired by an independent board member IAS considers environmental risks in its Audit Framework and procedures, and tests the respective organizational controls across business and functional units representing 100% of RBC's revenues. Noncompliance is subject to formal reports to senior management, assignment of responsibility for action plans; and scheduled follow-up.

Third parties do not audit RBC's environmental management system. RBC Internal Audit Services (IAS) considers in its Audit Framework and procedures, environmental risks and tests the respective organizational controls. Review of Internal Audit Services is part of the mandate of the Board's Audit Committee, which is chaired by an independent board member.

Question 2(f) Emissions History

Do the emissions reported for your last accounting year vary significantly compared to previous years? If so, please explain reasons for the variations.

No, they do not vary significantly.

Would you like to provide any additional information relating to this question that you have not provided elsewhere?

Yes

Due to the timing and geographic availability of data, we are only able to report on CO2 emissions from our Canadian branch network in 2007.

RBC's CO2 emissions have remained relatively stable from 2005 baseline year to 2007, on a per-employee basis. In 2005, total emissions were 1.19 tonnes/FTE (full time equivalent) and in 2007 they were 1.21 tonnes/FTE. However, we note that all of the increase in CO2 e emissions, on an per-employee basis, are driven by a large increase in paper used for direct mail campaigns.

On a per-employee basis, CO2 from energy use has dropped 4.5% since 2005, CO2 from travel has dropped 10% since 2005, and CO2 from office paper use has dropped by 13% since 2005. However, CO2-e emissions per FTE from paper use for direct mail has increased 47% since 2005.

Question 2(g) Emissions Trading

i) Does your company have facilities covered by the EU Emissions Trading Scheme?

No, we do not. (Please go to question 2(g)(ii) below)

ii) What is your company's strategy for trading or participating in regional and/or international trading schemes (eg: EU ETS, RGGI, CCX) and Kyoto mechanisms such as CDM and JI projects? Explain your involvement for each of the following:

EU ETS

RBC has been evaluating the opportunities associated with participation in international trading schemes since 2004. In 2007, RBC became the first Canadian financial institution to join the European Union emissions registry. This membership allows RBC to hold, settle, retire and transfer carbon credits with other registry members in the EU ETS. We began trading CO2 in 2008, and will disclose more regarding our strategy and successes in 2008.

We will continue to investigate other Carbon Market options and assess the risks and opportunities they may present for our clients and RBC.

CDM/JI

We are evaluating opportunities to support clients in participating in CDM markets.

CCX

We intend to trade on the CCX in 2008.

RGGI

Others

We began trading on the Montreal Climate Exchange in 2008.

Question 2(h) Energy Costs

i) Please identify the total costs in US \$ of your energy consumption eg from fossil fuels and electric power.

If you want to enter a number less than 1, please ensure you use a decimal point (e.g. 0.3) and NOT a comma (e.g. 0,3)

39000000 US\$

ii) What percentage of your total operating costs does this represent?

0.31 %

iii) What percentage of energy costs are incurred on energy from renewable sources?

39 %

More details

Our cost of energy in 2007 was \$39.0 million in Canada, encompassing electricity use at branches and office buildings, as well as other purchased energy (gas, fuel oil, etc) for Canadian branches. This represents 0.31% of our total (global) non-interest expenses. We do not currently have energy cost figures for our properties outside Canada, but expect to add some of this data to our SOFT footprint database in 2008.

Note: In 2006, we reported energy costs of \$19.1 million, which represented only the cost for energy at our major office buildings in Canada. Since then we have made efforts to broaden and improve data coverage across our real estate portfolio by working closing with our property management company CBRE.

In 2007, RBC made a commitment to purchase certified green power for all new branches in Alberta and Ontario over the next several years. In 2007, this amounted to 2,202 MWh of green power, supplied by Ontario-based provider Bullfrog Power, in these two provinces. This is in addition to the existing purchase of 1000 MWh of green power in BC. Our spending on green power for branches was \$75,000 in 2007.

Furthermore, electricity purchased in many Canadian provinces includes renewable power generated from hydro, wind and biomass. Based on provincial energy supply mix, we determined that of the \$39 million we spent on energy in Canada in 2007, approximately 39%, or \$15.1 million of this was from renewable energy sources.

3 - Performance

Question 3(a) Reduction Plans

i) Does your company have a GHG emissions reduction plan in place? If so, please provide details along with the information requested below. If there is currently no plan in place, please explain why.

Yes, we have a reduction plan in place. (Please proceed to part (ii))

ii) What is the baseline year for the emissions reduction plan?

2007

If you want to give further information or describe a rolling target, please do so here.

OUR PLAN:

In 2006, RBC developed a database for tracking and managing environmental footprint data and information. The Sourcing, Operations, Facilities and Travel Footprint (SOFT Footprint) is used to identify, monitor, and address our direct and indirect impacts on the environment. We believe that data integrity (quality and scope) is a critical component of any effective GHG reduction plan. We are continually adding to the data that is tracked and the geographic scope of data captured by the SOFT footprint.

RBC's Environmental Blueprint, released in late 2007, identified climate change as one of 3 priority environmental issues, and environmental footprint reduction as one of 3 priority objectives.

iii) What are the emissions reduction targets and over what period do those targets extend?

Our targets are qualitative, publicly stated in our Environmental Blueprint, tracked on an ongoing basis, and include:

1. reducing the greenhouse gas emissions intensity (emissions per employee or per square metre of occupied space) within our owned premises and in leased premises
2. increasing the use of alternatives to travel, such as videoconferencing and teleconferencing, where possible, and making flexible &work from home& arrangements available to employees where feasible;
3. zero net greenhouse gas emissions associated with the production and distribution of our major external reports
4. increasing the percentage of certified green power used in our Canadian branch network
5. reducing energy use in RBC's information technology systems and operations;
6. encouraging our suppliers to provide energy-efficient products
7. reducing the amount of paper we use, on a per employee or per customer basis, to reduce paper-related indirect CO₂ emissions
8. support transactions and business activities of qualified parties intending to reduce emissions of greenhouse gases

iv) What activities are you undertaking to reduce your emissions eg: renewable energy, energy efficiency, process modifications, offsets, sequestration etc? What targets have you set for each and over what timescales do they extend?

ENERGY EFFICIENCY:

EnergySmart Program for employees: This initiative, launched in 2007 on a pilot basis in Ontario, is designed to help employees improve the energy efficiency profile of RBC's branch network. Each of the participating branches has assigned an EnergySmart Champion to disseminate energy management information to employees at their branch. This program is complemented by an enterprise-wide EnergySmart intranet website, which provides RBC employees with energy conservation tips for the office and home. In 2008, we will calculate and report on the energy savings achieved at branches participating in the pilot. We make branch energy use information available to employees on a branch by branch basis on our intranet site.

Leadership in Energy and Environmental Design (LEED) office design: We have 16,500 employees in the downtown Toronto area, representing a full cross-section of our businesses and located in a number of different properties throughout the downtown core. Our new commercial office tower in downtown Toronto, currently under construction, has been designed to achieve LEED Gold certification. A number of RBC groups will be re-located to this facility from less efficient buildings. We anticipate that this will significantly increase the environmental efficiency of these groups, reducing our overall emissions profile.

Office temperature standards: RBC has recently modified operational standards for office temperatures. The summer temperature operational standards have been increased by 1.5 degrees Celsius and winter standards decreased by the same margin to reduce the heating and cooling requirements of our facilities. We attribute a portion of our energy reductions at our facilities to the program.

Distributed Print Initiative: From 2006 to 2008, RBC reduced the number of departmental print devices by 47%. We replaced old laser printers and photocopiers with Energy Star-rated Multi-functional devices (MFDs) that are connected to the local area network, and have automatic energy saving settings (and default double-sided printing).

Green meetings: In 2007, we launched new corporate guidelines on hosting environmentally sustainable events or meetings. The guidelines include information on purchasing CO₂ offsets for meetings, as well as video-

conferencing, teleconferencing and other tactics. In 2008, we will report on the emissions impact of this initiative, in terms of increased videoconferencing hours booked, and offsets purchased.

Lighting Upgrades: In 2007, we completed 16 lighting upgrade projects in Canada, involving the replacement of lamps and ballasts and the introduction of additional automated light-control sensors to reduce energy consumption. These projects will result in over 505 megawatts of saved energy and over 105 tonnes of GHG avoided annually.

GREEN POWER AND OFFSETS:

We offset the GHG emissions associated with the production and distribution of our Annual Report and Corporate Responsibility Report in 2006 and 2007, and will do the same for the 2008 reports.

We made a commitment to purchase clean, renewable green power, wherever it is available, for all new branches expected to open in Canada throughout 2008 and beyond. In 2007, we purchased 3202 MWh of green power in Canada, in addition to the green power that is provided by provincial electric utilities through their energy mix.

RBC Procurement, responsible for RBC's purchases of goods and services, employs environmental screening mechanisms such as a Green Product Questionnaire. This helps us select vendors with superior environmental standards while simultaneously influencing our supply chain to increase their efficiency. For RBC, that means we reduce energy use, material consumption and greenhouse gas emissions. We will be adding criteria for energy use, where appropriate, to our new Green Procurement Policy and standards in 2008.

We are actively expanding our electronic services and paperless banking options for clients and employees while maintaining the highest level of commitment to information security and privacy protection. This is reducing the CO2 footprint associated with paper mailings.

For a list of operational footprint initiatives, go to <http://www.rbc.com/environment/initiatives-footprint-SOFT.html#2>.

HELPING CLIENTS REDUCE EMISSIONS:

We studied the business aspects of participating in CO2 markets in 2007, and launched a CO2 emissions trading desk in 2008. This will support our clients' efforts at reducing GHG emissions.

We provide general information on climate change to visitors to our environment website (rbc.com/environment), including tips on what they can do at home, on the go, and at work to reduce their environmental footprint, including GHG emissions.

We continue to support clients in the renewable energy and clean technology sectors with financing and advisory services.

In 2007 we provided philanthropic incentives to encourage clients to reduce their environmental impacts, including donations of \$50 to the Nature Conservancy of Canada (NCC) for every new hybrid vehicle purchased using an RBC Royal Bank car loan; and \$5 to the Nature Conservancy of Canada (NCC) each time an account was switched from paper to electronic statements. (see <http://www.rbc.com/environment/index.html>). This second incentive raised \$1 million for the NCC. We also offered Ontario and Alberta residents a \$25 discount towards their first month of clean power purchased through Bullfrog Power.

RBC Capital Markets conducts investment research into the solar power sector. In May 2007, we published a report entitled "Investing in Solar Now" which outlined four key investment strategies for the emerging global solar industry (see <http://www.rbc.com/newsroom/20070509solar.html>).

We have an Energy & Utilities team within RBC Capital Markets in London (U.K.) that provides services to the renewable energy sector. The 20-member team offers investment banking, financing and advisory services for businesses and renewable power projects in Europe, and provides support to our international activities within the renewables sector for projects such as wind farm, small hydro and biomass projects. Some of the transactions that we were involved in 2007 include: Financial advisor to a 1.14 billion Euro refinancing of a European Wind Farm portfolio; Financial advisor for the purchase of two 145 million British Pound equity interests in the UK's

largest wind portfolio, etc.

v) What investment has been or will be required to achieve the targets and over what time period?

Emission reduction initiatives in our own operations are considered part of our overall operating budgets and most are not quantified on a separate ledger line. Rather, programs and activities are evaluated based on their ability to improve our efficiency and client experience, while reducing our operational footprint.

We have invested in human resources to oversee and manage energy efficiency improvements and emission reductions, with a dedicated environmental manager for our Canadian and US operations, a new position of Environmental officer responsible for UK operations, as well as the support of our property management service provider across our operations. RBC also has three full time staff in Corporate Environmental Affairs, leading the strategy and direction for environmental programs across the organisation.

Over 50% of our premises are leased facilities, where we are a tenant and are not able to undertake capital projects. However, we work with our property management company to improve the efficiency of the premises in which we operate; and since 2001, our landlords have improved the efficiency of their facilities on our behalf.

vi) What emissions reductions and associated costs or savings have been achieved to date as a result of the plan?

We do not currently track the costs or savings associated with most programs as they are embedded within our operating budgets. However, we know:

Distributed Print Initiative has resulted in energy savings of approximately \$364,000 per year, and an indirect CO2 emission reduction of approximately 1300 tonnes per year.

Lighting upgrade projects will result in over 505 megawatts of saved energy and over 105 tonnes of GHG avoided annually.

Would you like to provide any additional information relating to this question that you have not provided elsewhere?

Yes

References:

Activities in 2007: <http://www.rbc.com/responsibility/pdf/RBC-2007report-e.pdf> (pages 23-28)

Operational footprint Initiatives: <http://www.rbc.com/environment/initiatives.html>

Helping Retail Banking Clients: <http://www.rbc.com/environment/choices.html>

Research on Solar Industry: <http://www.rbc.com/newsroom/20070509solar.html>

Energy and Utilities Finance (recent wind power and other transactions): http://www.rbccm.com/0,,cid-27581_,00.html

Question 3(b) Emissions Intensity

i) What is the most appropriate measurement of emissions intensity for your company?

Other

RBC uses tonnes of GHG emission per full time equivalent (FTE) employee as our emissions intensity measurement (tonnes CO2e/FTE). We believe that this best reflects our distributed geographic presence and emissions intensity profile.

Note the below GHG emission intensity calculation are based on \$m turnover in Canadian dollars.

Please give your company's emissions intensity figure for the measurement given above.

If you want to enter a number less than 1, please ensure you use a decimal point (e.g. 0.3) and NOT a comma (e.g. 0,3)

1.21

ii) Please state your GHG emissions intensity in terms of total tonnes of CO₂-e reported under Scope 1 and Scope 2 per US \$m turnover and EBITDA for the reporting year.

Scope 1/ US \$millions turnover

0.505

Scope 2/ US \$millions turnover

1.424

Scope 1/ EBITDA

Scope 2/ EBITDA

iii) Has your company developed emissions intensity targets?

Yes, we have developed emission intensity targets. (Please answer questions (a) and (b) below.)

a) If the answer to part (iii) above is yes, please state your emissions intensity targets

We have emission intensity objectives. As stated in the RBC Environmental Blueprint, we are committed to "reducing the greenhouse gas emissions intensity (emissions per employee or per square metre of occupied space) within our owned premises and working with our landlords toward the same objective in leased premises".

b) If the answer to part (iii) above is yes, please state what reductions in emissions intensity have been achieved against targets and over what time period.

Since 2005, we have observed a decrease in emissions intensity from travel, energy use, and office paper, but an increase in emissions intensity associated with paper used for direct mail.

Question 3(c) Planning

Do you forecast your company's future emissions and/or energy use?

No, we do not (Please take the opportunity to explain why not and then go to question 4 a)

i) Please provide details of those forecasts, summarize the methodology used and the assumptions made.

If you are able to give quantified forecasts of Scope 1 and Scope 2 emissions and/or electricity consumption, you can enter numerical data on the next page.

Most of our emissions are indirect. As a service company, we do not expect to be regulated under a regime that will apply a cost of carbon directly to our emissions. We may feel the effects of carbon costs through increased electricity and heating fuel prices, but it is not possible to accurately predict these indirect effects at this point.

iii) How have these considerations made an impact on your investment decisions?

We are sensitive to the fact that energy prices are likely to continue to rise. As a result, we take future energy prices into consideration when calculating the payback period and ROI of capital expenditures on energy intensive equipment and operations.

Question 3(c) (i) Planning - Forecasted emissions/electricity use - Year 1 answers

This page gives you the opportunity to give numerical forecasts for emissions and electricity use. If possible, please provide emissions forecasts for the next five reporting periods. Use the 'Add additional year figures' button at the end of the page to enter emission forecasts for successive reporting periods. Note: Please enter whole numbers without punctuation. For example, use 2000 instead of 2,000

Please enter the accounting period used to report GHG emissions details below.

[Dates not selected.](#)

Forecasted Scope 1 Direct GHG Emissions: Please provide:

- a. Forecasted Total global Scope 1 emissions in Metric Tonnes CO₂-e.

- b. Forecasted Total Scope 1 emissions in Metric Tonnes CO₂-e for Annex B countries.

By country - Forecasted Scope 1 emissions in Metric Tonnes of CO₂-e by individual country

Using the same methodology please state your emissions forecasts per country. NB : If it is not practical for you to list emissions on a full country by country basis, please list here countries with significant emissions in the context of your business and combine the remainder under &rest of world&. If you already have this information in another format (e.g Excel) please attach it.

Country **Scope 1 Emissions**
(metric tonnes CO₂-e)

Scope 2 Indirect GHG emissions: Please provide:

- c. Forecasted total global Scope 2 emissions in Metric Tonnes CO₂-e

- d. Forecasted total Scope 2 emissions in Metric Tonnes CO₂-e for Annex B countries

By country - Forecasted Scope 2 emissions in Metric Tonnes of CO₂-e by individual country

Country **Scope 2 Emissions**
(metric tonnes CO₂-e)

Forecasted electricity consumption

- e. Forecasted total global MWh of purchased electricity

- f. Forecasted total MWh of purchased electricity for Annex B countries

By country & Forecasted MWh of purchased electricity by individual country.

Country

- g. Forecasted total global MWh of purchased electricity from renewable sources

h. Forecasted total MWh of purchased electricity from renewable sources for Annex B countries

By country & Forecasted MWh of purchased electricity from renewable sources by individual country.

Country

Would you like to provide any additional information relating to this question that you have not provided elsewhere?

No

4 - Governance

Question 4(a) Responsibility

Does a Board Committee or other executive body have overall responsibility for climate change? If not, please state how overall responsibility for climate change is managed. If so, please answer parts (i) and (ii) below.

Yes, an executive body does have overall responsibility for climate change.

i) Which Board Committee or executive body has overall responsibility for climate change?

Executive oversight for environmental risk, including climate change, is provided by our Chief Risk Officer, the Chief Operating officer, our Group Risk Committee (chaired by the CEO) and ultimately by the Conduct Review and Risk Policy Committee of our Board of Directors.

RBC Corporate Environmental Affairs (CEA) Group, has management and leadership responsibility for environmental matters at RBC, including climate-change related risks and opportunities.

ii) What is the mechanism by which the Board or other executive body reviews the company's progress and status regarding climate change?

Under the RBC Environmental Blueprint, Corporate Environmental Affairs must "report periodically to RBC's Group Executive and to a Committee of the Board of Directors on our progress in implementing the Environmental Blueprint". Senior executives are informed regularly of environmental issues, including climate change related issues, and matters are escalated to the Board of Directors through reports, presentations and analysis on climate change, as appropriate.

The Board also carries out rigorous review and assessment of the content of our Annual Report and Corporate Responsibility Report, thus reviewing the company's progress and status on climate change on a yearly basis.

Environmental risk management policies, including policies that may pertain to climate change-related risks, must be reviewed and approved by the Policy Review Committee, which is chaired by the Chief Risk Officer.

Would you like to provide any additional information relating to this question that you have not provided elsewhere?

Yes

References:

Oversight: <http://www.rbc.com/responsibility/pdf/RBC-2007report-e.pdf>

RBC Environmental Blueprint: <http://www.rbc.com/environment/pdf/RBC-Environmental-Blueprint.pdf>

Question 4(b) Individual Performance

Do you assess or provide incentive mechanisms for individual management of climate change issues including attainment of GHG targets? If so, please provide details.

Yes, we do.

Incentives for individual management of climate change issues are provided to employees responsible for Corporate Citizenship, Corporate Environmental Affairs, Environmental Risk Management, CO2 emissions Trading, and Corporate Real Estate Environmental Management. In these cases, individual performance measures related to climate change are a component of employee performance measurement, which in turn contributes to the determination of an employee's annual bonus.

Question 4(c) Communications

Please indicate whether you publish information about the risks and opportunities presented to your company by climate change, details of your GHG emissions and plans to reduce emissions through any of the following communications:

i) the company's Annual Report or other statutory filings

Yes

We publish information about climate change risks and opportunities in our annual Corporate Responsibility report.

We also publish information regarding environmental risk in the MD&A section of our Annual Report (Page 100, 2007 RBC Annual Report). This information describes the manner in which risks, including climate change related risks, are managed in the organisation.

ii) formal communications with shareholders or external parties

Yes

RBC's Investor Relations and Corporate Environmental Affairs teams meet regularly with shareholders and other interested external parties who have an interest in climate change related issues. In 2007, we met formally with and in many cases gave presentations to the following organisations in regard to climate change and other environmental issues:

NGOs: ForestEthics, WWF-Canada, Canadian Boreal Initiative, Zerofootprint, Pembina Institute, Rainforest Action Network

Socially responsible investment companies and analysts: The Ethical Funds, Progressive Investments, Carbon Disclosure Project, Jantzi Research and Innovest Strategic Value Advisors The Ethical Funds Company and other interested external stakeholders.

Industry associations: Canadian Association of Petroleum Producers, International Emissions Trading Association and Forest Products Association of Canada.

We also give presentations at conferences, to university classes, and to community groups on climate change and other environmental topics on a regular basis.

iii) voluntary communications such as Corporate Social Responsibility reporting

Yes

CR Report: We publish information about the risks and opportunities presented to our company by climate change and details of our GHG emissions and plans to reduce emissions in our CR report.

Website: In order to enhance our environmental sustainability, we are increasingly moving away from paper-based reports, and toward publishing an increasing amount of information online, on www.rbc.com. In 2007, we

reduced the size of our printed CR report to just 12 pages, and published a more detailed 40-page CR report in PDF format on our website, along with a plethora of web-based environmental, social and other information on hundreds of web pages.

Would you like to provide any additional information relating to this question that you have not provided elsewhere?

Yes

References:

Annual Report: http://www.rbc.com/investorrelations/ir_annual_report.html

CR Report: <http://www.rbc.com/responsibility/reports/index.html>

External Stakeholders: <http://www.rbc.com/responsibility/pdf/RBC-2007report-e.pdf> (page 24)

Voluntary Communications: <http://www.rbc.com/environment/index.html>; and

<http://www.rbc.com/responsibility/index.html>;

Public Speeches and Presentations: <http://www.rbc.com/environment/speeches.html>

Question 4(d) Public Policy

Do you engage with policymakers on possible responses to climate change including taxation, regulation and carbon trading? If so, please provide details.

Yes

In our Environmental Blueprint, we commit to:

& participating, where appropriate, in the development of public policy and market mechanisms that help facilitate emission reductions and adaptation to the effects of climate change; and

& continuing to consult and share information on environmental matters with politicians, government departments and organizations, associations and non-governmental organizations (NGOs), where appropriate.

In 2007, we met with the following federal government departments and individuals to discuss environmental affairs, including climate change regulation:

- Finance
- Environment
- Natural Resources
- Leader of the Official Opposition