



The Royal Bank of Canada

**RBC's Response to the
Carbon Disclosure Project - CDP 3**

ENVIRONMENTAL RISK MANAGEMENT GROUP
Group Risk Management
June 2005

Carbon Disclosure Project (CDP) Greenhouse Gas Emissions Questionnaire

We request as full a reply as possible to the following questions by no later than 31st May 2005. Please send your response electronically, in English, to the Project Coordinator at info@cdproject.net. If you already publish the relevant information, please indicate for each question how this can be accessed. If at this stage you can only provide indicative information we would still welcome this; "a best guess" is more valuable to us than no response. If you are unable to answer any of these questions please state the reasons why. This is the third CDP information request (CDP3); for previous respondents, please highlight developments and trends since CDP2.

1. **General:** Do you believe climate change, the policy responses to climate change and/or adaptation to climate change represent commercial risks and/or opportunities for your company?
 - If yes, specify the implications, detail the strategies adopted and actions taken to date.
 - If no, please indicate why.

Yes, RBC Financial Group (RBC) believes that climate change, policies to address climate change, and adaptation strategies all present both risks and opportunities to our company. It is for this reason that we have a multi-stage Carbon Risk Program underway that includes the evaluation of: (1) climate change risks to industry sectors in our portfolio, (2) risks and opportunities of climate change mitigation policies including the Kyoto Protocol, (3) risks and opportunities of policy instruments to RBC's businesses.

1. **Climate change risks:** Risks include adverse effects on market sectors we finance, including natural resource based industries and tourism. We also see potential risks in the property casualty insurance sector and in reinsurance. RBC Insurance, a member of RBC that offers property and casualty insurance products could be among those insurers affected by increased property damage claims resulting from an increase in adverse weather events. RBC Centura, also a member of RBC, has branches located in Florida, North Carolina, South Carolina and Virginia, which could be affected by flooding and wind damage from severe weather events (such as hurricanes). These events are projected to increase in frequency and severity according to some climate change commentators. Based on the extensive review of published literature that we conducted in 2002, we view climate change risks as being a long-term issue that we must track, due to the relatively slow rate at which the climate is changing, which should allow for adaptation by many industry sectors.
2. **Risks and Opportunities of Climate Change Mitigation Policies:** Unlike climate change itself, we understand that policies such as the Kyoto Protocol will impact RBC and its clients in an acute manner and in the shorter term. We recognise both risks and opportunities to our clients and to our own business units. We are in the midst of a study to evaluate the risks and opportunities of climate change policies to our five business platforms. Furthermore, we have developed a strategy for incorporating "carbon risk" into the risk assessment of borrowers in certain industry sectors. In terms of opportunities we have a growing alternative energy portfolio which includes:
 - The financing of over 20 wind farms with installed capacity of over 400 MW since 2002
 - A \$50 million alternative energy technology venture fund overseen by RBC Capital Partners.
 - Our participation through RBC Technology Ventures in the GEF Clean Technology Fund, L.P. It is a new private equity investment fund that identifies and finance companies that create technologies that enable traditional industrial companies to reduce energy consumption, their material waste, their discharge of pollutants, safety or public health hazards, and other environmental consequences.
3. **Risks and opportunities of Policy Instruments:** The third project under our Carbon Risk Program was to examine the potential risks and opportunities in trading greenhouse gas (GHG) emissions. We conducted an extensive review of energy carbon markets in Canada, the US, and the EU and identified 5 specific business opportunities for RBC, along with timing, risks and how risks could be mitigated

Furthermore, risks and opportunities from climate change and Kyoto protocol were considered at RBC's Risk Policy Review Committee, the enterprise wide Group Risk Committee and presented to the Conduct Review and Risk Policy Committee of the Board of Directors in May 2005.

2. **Responsibility:** Do you allocate specific responsibility to executive and independent directors for climate change related issues?
- If yes, what is the title of the person/department/board committee with this responsibility?
 - If no, are you planning on doing so, and if so when?

Yes. The management of climate change-related issues is presently the responsibility of the Senior Manager, Environmental Risk Management, whose mandate falls under the umbrella of enterprise-wide or Group Risk Management. In future, as climate change risk management becomes more quantifiable, it will also be the responsibility of the loan officers and risk adjudicators to include climate change-related risks in their analysis of financial transactions

3. **Innovation:** What are the relevant technologies and/or processes that can be employed in your company/sector to achieve emission reductions? Have you taken any steps to develop/implement these technologies and do you anticipate being able to profit from their commercialisation?

RBC's initiatives to achieve emission reductions are focused in decreasing energy consumption. In addition some of RBC's business activities have positive emission reduction effects in the marketplace.

Energy consumption programs

RBC Corporate Real Estate (CRE), in conjunction with our facility management partner BLJC, are working on a number of initiatives to reduce energy consumption at RBC properties. One initiative is the Building Energy Performance Index* (BEPI) Challenge. Through the BEPI Challenge, the least energy efficient branches in each region are identified. Causes of the inefficiencies are investigated, both short and long term solutions to the problem are developed, evaluated and those that are deemed appropriate are implemented. When appropriate, solutions are applied across the portfolio.

Another initiative underway is the EASy* Challenge (Energy Aggregation System). Under this program, profiling meters have been placed in selected branches to track real-time energy consumption to accompany recently made upgrades to temperature control systems. By comparing before and after results we hope to substantiate control savings. At the same time, electricity profiling will help identify low cost opportunities for immediate savings in all of our branches. Some examples of possible inefficiencies are:

- lights left on all night and weekends;
- computer/fax/photocopiers and other equipment left on all night and weekends;
- heating and air conditioning running simultaneously;
- poorly calibrated thermostats;
- no temperature setback during unoccupied hours; and
- exhaust fans running continuously.

We also look for longer-term solutions to energy inefficiencies beyond the immediate low cost options. These might include elements like:

- lighting and critical equipment on same circuits;
- inadequate light switching;
- uncontrolled heat tracing;
- inadequate control on vestibule heaters; and
- parking lot lighting left on during daylight hours.

Through the BEPI and EASy Challenges, RBC is finding ways to reduce energy consumption in our branches. Reducing our energy use has a two-fold effect: it lowers our energy costs, which contributes to our financial health, and it lowers pollution levels, which is beneficial to the communities where we live and work. We believe our energy reduction programs benefit all of our stakeholders, from our employees to our shareholders to our community

Energy Innovators Initiative

RBC, with its facility management partner BLJC, has completed a lighting retrofit program that replaced older inefficient systems with new energy efficient varieties including compact fluorescent lamps, and T8 fluorescent lamps powered by electronic ballasts. The project demonstrates RBC's commitment to Canada's efforts to reduce greenhouse gas emissions by joining Natural Resources Canada's Energy Innovators* Initiative and program benefits in the implementation of this energy efficiency retrofit. The initial phase involved 117 branches right across the country.

A second replication phase commenced in the fall of 2003. In 2004, another 130 branches were retrofitted in Ontario.

Green Power program

In October 2004, RBC strengthened its commitment to sustainable development by renewing its contract with BC Hydro for Green Power. BC Hydro Green Power is generated exclusively at facilities that are EcoLogo certified or the equivalent, and that exceed the rigorous requirements as outlined by the federal legislation. RBC increased its purchased amount in 2004 to 640 MWh of Green Power, which represents the equivalent GHG reduction of taking 64 cars off the road per year.

RBC has supported Green Power generation since 2002, and we are proud to have been the first financial institution in Ontario to have done so. In total, RBC has purchased 3,240 MWh of Green Power nationally since that time.

Project Finance

We recognize the opportunity in alternative energy resources, and already finance more than 25 wind farms in Canada, U.S., U.K. and Italy. In February 2004, RBC Capital Markets was the key advisor in closing a deal for a 400-megawatt wind farm portfolio for Zephyr Investments Ltd. and Beaufort Wind Ltd. in the U.K., deemed the renewable energy deal of the year by Project Finance International.

Asset Management

RBC runs a US\$50 million alternative energy technology venture fund overseen by RBC Capital Partners. In 2004, RBC Technology Ventures became lead investor in the GEF Clean Technology Fund, L.P. It is a new private equity investment fund that identifies and finance companies that create technologies that enable traditional industrial companies to reduce energy consumption, their material waste, their discharge of pollutants, safety or public health hazards, and other environmental consequences.

4. ***Emissions Trading:*** Do you have a strategy regarding emerging greenhouse gas emissions regulation and trading initiatives such as the EU Emissions Trading Scheme and the Chicago Climate Exchange?
- If yes, specify the implications, detail the strategies adopted and actions taken to date.
 - If no, are you planning on doing so, and if so when?

Yes, we have a strategy to prepare for GHG emissions regulation and trading, particularly in anticipation of the EU's trading scheme, which starts in January 2005. The implications, of course, are that carbon will be either an asset or a liability on the balance sheets of many of our clients or their subsidiaries. Our strategy to date has been to: (1) monitor developments in the EU, Canada and the USA, (2) participate in a number of IETA (International Emissions Trading Association) initiatives, including developing the framework for a Canadian carbon market, (3) examine the risks and opportunities of greenhouse gas emissions trading as an RBC business area, and (4) examine the impacts of the monetization of carbon on our clients. Our entry into

the emission-trading arena depends on the Government of Canada long-awaited detailed plan for meeting our national commitments under the Kyoto Protocol.

5. **Operations¹**: What is the quantity in tonnes CO₂e of annual emissions of the six main GHGs² produced by your owned and controlled facilities in the following areas?
- Globally.
 - Annex B countries of the Kyoto Protocol.
 - EU Emissions Trading Directive.

Annual GHG emissions from RBC are calculated based on indirect emissions from the use of electricity in our offices and buildings. For the year ending July 31, 2004, CO₂e emissions were 40,932 tonnes, of which 11,245 tonnes were direct emissions from heating fuel use. Calculations are based on the GHG Protocol Standard developed by the World Business Council on Sustainable Development (WBCSD) and the World Resources Institute (WRI).

6. **Products and services**: Do you estimate the emissions associated with:
- Use and disposal of your products and services³?
 - Your supply chain.
 - Other indirect emissions (e.g. business travel)
 - o If yes, for each of the above, please provide further information.
 - o If no, are you planning on doing so and if so when?

As a financial institution, we do not produce or manufacture physical products. Our products consist solely of financial services such as custody services, personal and commercial banking, wealth management and mutual funds. We do not measure emissions associated with our services. As described above, we are beginning to consider how the GHG emissions of our clients might impact their risk profile. We do not intend at this time to attempt to “measure” the GHG emissions from our services

Our centralised Strategic Sourcing Group includes Green Procurement questions in the evaluation of potential suppliers of goods or services to RBC. These questions include qualitative assessment of a supplier’s energy efficiency programs, and the relative energy efficiency of products that we buy, which indirectly affect GHG emissions.

We do not measure indirect emissions from business travel, we measure indirect emissions from the purchase of energy.

7. **Emissions reduction**: Do you have emission reduction programmes in place?
- If yes, when were they established and what are the targets? What have been the reductions achieved, the investment involved and the associated costs or savings? Please also detail any targets relating to Questions 6 and anticipated costs or savings.
 - If no, are you planning on doing so, and if so when?

Yes, we have emission reduction programmes in place (See Q3). Our programmes focus on reducing our own emissions, not those of our suppliers or clients. At present, our objective is to continuously reduce energy use, but we do not have explicit emission reduction targets in place. Our performance indicators

¹ Please specify the methodology and boundaries used for measuring emissions e.g. www.ghgprotocol.org. Explain if these data are audited and/or externally verified. If responding for the first time please supply data for the last three annual measurement cycles.

² Carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), Hydrofluorocarbons (HFCs), Perfluorocarbons (PFCs) and Sulphur Hexafluoride (SF₆).

³ For example, if you are a financial services company, do you take into account the emissions related risks and/or opportunities of the companies you invest in, lend to, or insure.

related to GHG emissions include: electricity use per square foot, oil usage, natural gas usage, percentage of green power, and equivalent CO2 emissions per employee per year.

8. **Emissions intensity:** Do you measure emissions intensity against production, sales or other output measures?
- If yes, what is your historical and current intensity data? What are your emissions intensity targets?
 - If no, are you planning on doing so and if so when?

Yes, we measure emissions intensity against total area of real estate occupied. Our emissions intensity measured in kg/sq.ft has been 5.53, 5.89 and 5.89 in 2002, 2003 and 2004 respectively. Although we don't have specific quantitative targets, we aim for total reduction. Our Environmental Standards Manager in Corporate Real Estate measures and monitors energy usage and intensity for each of the 1074 locations in Canada.

9. **Energy costs:** What percentage of your total revenue is represented by the costs of fossil fuels and electric power?

RBC's total energy cost for 2004 was approximately \$ 14,842,202 CAD, which is equivalent 0.08% of its total revenue (\$ 18,121 Millions CAD). Total energy costs are comprised by electricity, gas and oil costs. Our BEPI program (See Q3) tracks energy usage, energy costs and energy intensity usage for all 1074 locations in Canada.