

2013 RBC Environment Report



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At RBC®, we are committed to proactive and prudent management of the environmental aspects of our business. We are committed to reducing our environmental footprint, lending responsibly, providing green products, services and advice to our clients, and promoting environmental sustainability.

2013 Highlights


\$7 MILLION
DONATED TO
ENVIRONMENTAL
CHARITIES



227,500 m²
LEED GOLD
CERTIFIED
OFFICE SPACE



18,673
MWh
GREEN POWER
PURCHASED



1,238
ENVIRONMENTAL
CREDIT RISK
ASSESSMENTS



8 POLICIES
TO HELP OUR
CLIENTS MANAGE
ENVIRONMENTAL
AND SOCIAL RISK



17%
REDUCTION
IN GHG
EMISSIONS



10%
LESS OFFICE
PAPER USED
PER EMPLOYEE



\$450 MILLION
PURCHASES SCREENED AGAINST
ENVIRONMENTAL AND SOCIAL CRITERIA



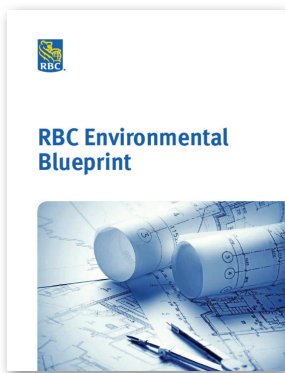
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Our roadmap

We published the first RBC Environmental Blueprint (“the Blueprint”) in 2007, which articulated our corporate environmental policy, priorities and objectives, including 44 medium- and long-term commitments to incorporate environmental sustainability in all aspects of our business. We are proud of the many [accomplishments](#) achieved since its launch.

In 2014, we released an updated version of the [RBC Environmental Blueprint](#), with ambitious new commitments that will drive our environmental sustainability programming through to the end of 2018.



The new RBC Environmental Blueprint.

Our priority issues

The environmental issues facing our planet are complex and growing in number and importance. RBC will continue to manage the many environmental issues that can give rise to risks or opportunities, and we will focus our environmental efforts on the following three key issues:

- **Climate Change:** We will continue to explore the evolving scope of risks and opportunities associated with mitigating and adapting to climate change. This will enable us to respond to the needs of our clients, shareholders, employees and other stakeholders when providing financial services, operating our facilities and supporting our communities.
- **Water:** We will endeavour to understand the water-related risks and opportunities facing the sectors that we finance and the communities in which we live and work. We will promote thought leadership and awareness by supporting organizations that are working to address important water-related issues, and offer solutions to the growing water crisis through [RBC Blue Water Project™](#) donations and sponsorships.
- **Sustainable Communities:** We will play an important role in encouraging the shift to livable, vibrant and more sustainable communities by leading by example and showcasing environmental sustainability in our own operations. In addition, we will continue to support financially sound business initiatives that improve the quality of life in communities of all sizes. We will also support philanthropic efforts to conserve and enhance green space and critical habitats in communities. Finally, we will promote research and collaboration to accelerate the transition to more sustainable communities.

Our priority objectives

We believe that our actions can make a meaningful and positive contribution toward solving some of the problems posed by our three priority issues. In order to best focus our efforts and make tangible progress, our priority objectives are grouped as follows:

- **Reduce our environmental footprint**
- **Manage environmental and social risks**
- **Offer environmental products, services and advice**
- **Promote environmental sustainability**

We will work with our stakeholders, including employees, clients, shareholders and suppliers, to meet our objectives. We summarize our progress against our priority objectives on the following pages.

Reducing our environmental footprint

We take responsibility for our environmental impacts, which are primarily associated with our procurement activities and our extensive owned and leased property network consisting of nearly 1,900 properties across 46 countries.

Our environmental footprint is the sum of the environmental impacts of our operations, comprising energy use, paper consumption, employee travel, water use and waste generation. For detailed metrics, see **RBC Environmental Footprint Report** in Appendix A.

Reducing greenhouse gas emissions and energy use in our operations

We emit greenhouse gases directly through the combustion of fossil fuels in some of our heating systems; however, the majority of our greenhouse gas emissions are indirect, such as through our use of purchased electricity, employee travel and the delivery of supplies to our properties. We use energy to heat and cool buildings, run our technology infrastructure and lighting systems, and for other purposes.

In 2013, we:


- Completed lighting retrofits at over 340 Canadian retail branches, for a total of 945 branches completed since 2010. On average, participating branches have benefited from a 33% reduction in lighting electrical demand, which translates into a 9% reduction in overall branch electrical demand and total energy savings to date of approximately 9,500 MWh of electricity.
- Powered our entire Canadian ATM and retail branch digital display network with 100% clean, renewable energy. We did this by purchasing 18,673 MWh of EcoLogo-certified green power for approximately 4,600 ATMs and 8,000 digital displays, for an equivalent carbon dioxide reduction of over 3,800 tonnes.

Green power purchases (MWh)

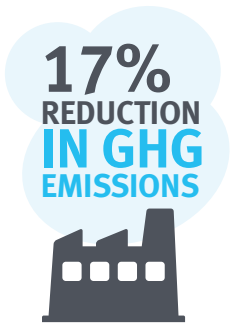


- Increased the number of virtual servers to nearly 12,700, representing 44% of our total global servers. By pooling more applications on fewer servers, our energy usage can be reduced. For every server virtualized, we estimate avoiding the need for 1,400 kWh of electricity annually.
- Received two Greater Toronto CivicAction Alliance (CivicAction) awards for energy efficiency improvements in major properties that participated in the Race to Reduce Program. These savings were the result of joint landlord-tenant initiatives such as lighting upgrades, recommissioning and greater control over operating parameters.

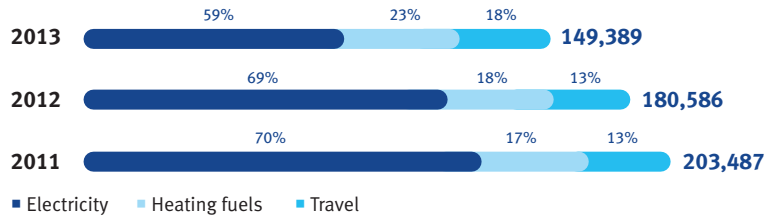
18,673
MWh
GREEN POWER
PURCHASED



- Continued our office space optimization strategy, which includes a new office design that reflects a more mobile and customized way of working. Since inception in 2009, this initiative has reduced our office space requirements by over 35,000 m², resulting in annual energy savings of more than 13,000 MWh, about the equivalent energy use of 1,100 Canadian homes.
- Expanded Project One-Stop (POS), aimed at reducing the number of deliveries to our Canadian properties by consolidating shipments and adjusting delivery frequencies. Since the project launch in June 2012, we have seen a 24% reduction in GHG emissions associated with the transportation of goods within the project's scope.

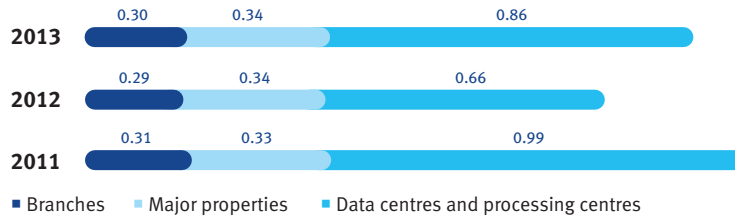


Total GHG Emissions (tonnes)



Our total GHG emissions in 2013 decreased by 17% compared to 2012 figures.¹

Energy² intensity by property classification (MWh/m²)



The energy intensity of our data and processing centres increased in 2013 as IT equipment was migrated into our new and expanded data centres.

Reducing paper use and purchasing sustainably sourced paper products

RBC uses a great deal of paper, both internally and in client materials. Well-managed forests are a renewable resource, and we will do our part to conserve forest resources and support sustainable forest management.

In 2013, we:

- Continued to see success in e-Courier, a program that allows branches in Canada to electronically submit documents to central processing offices, and offers other digitization options that reduce the need for paper and the associated environmental impacts of transportation. Employees submitted an estimated 52 million pages of documents through e-Courier, avoiding the need for 236 tonnes of copy paper.
- Increased our use of sustainably sourced Forest Stewardship Council certified paper for marketing and direct mail.

Proportion of certified, sustainably sourced paper³



The proportion of sustainably sourced paper increased for the fifth consecutive year.

Office paper use (kg/FTE⁴)



Office paper use per employee decreased for the fifth consecutive year.

10%
**LESS OFFICE
PAPER USED
PER EMPLOYEE**



Applying the principles of green building design and operation in our properties

An important strategy for reducing our environmental impact is choosing to lease or build office space certified to green building standards, including the predominant North American green building standard, LEED⁵.



RBC WaterPark Place will be the first LEED Platinum office tower in Toronto.

In 2013, we:

- Leased over 227,500 square metres of LEED Gold certified office space. Our LEED Gold certified office space represents 31% of our total floor area in major properties.
- Leased an additional 122,500 square metres of office space certified under BOMA BEST⁶ and BREEAM⁷.

LEED certified office space (m²)



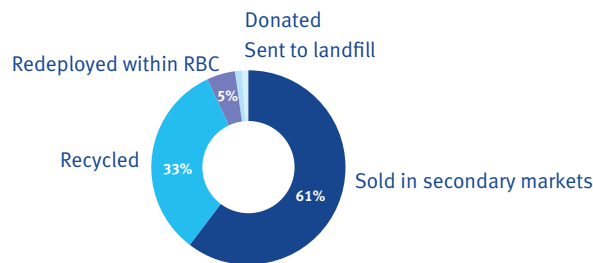
Minimizing and, where possible, eliminating waste sent to landfill

Demand management, reuse and recycling are the preferred methods of reducing solid waste. Where solid waste cannot be eliminated, we are committed to its careful management and disposal.

In 2013, we:

- Tracked the disposal of over 490 tonnes of electronic items, including CPUs, monitors, laptops, printers, servers and other specialized equipment from 20 countries. More than 99% of the electronic items were diverted from landfill through resale, donation, redeployment or recycling.

Global e-waste



- Diverted nearly 172 tonnes of furniture and more than 2.4 tonnes of carpet from landfill by finding ways to reuse, recycle or donate materials to charities. Since 2008, our furniture reuse program has diverted nearly 314 tonnes of materials from landfills.
- Diverted more than 7,000 tonnes of waste from landfill through recycling and organic waste collection programs, achieving a waste diversion rate of 79% for more than 40 major properties in our North American operations⁸.

Improving water conservation practices on our properties

While our level of direct water consumption is relatively small, associated mainly with restroom and lunchroom facilities, we are committed to improving our water use and conservation practices by incorporating water efficient technologies in our new or renovated properties; reducing the use of landscape irrigation in water-stressed regions; and using environmentally responsible cleaning products in janitorial services to help protect water quality.



Xeriscape design at a branch in Etobicoke, Ontario.

In 2013, we:

- Implemented a xeriscaping pilot at select RBC branches in water-stressed regions. Xeriscape design incorporates landscape features that require no supplemental water beyond what is provided naturally through rainfall.
- Installed aerators on older water fixtures at over 260 RBC branches, with estimated water savings of over 20% per fixture.
- Consumed a total of 859,483 m³ of water in our North American branches and major properties, for a reduction of 2% over 2012⁹.

Working with our suppliers to uphold high sustainability standards

Our procurement of materials, goods and services is extensive and globally far-reaching, and presents opportunities for RBC to partner with suppliers that embrace environmentally and socially responsible business activities. RBC's supplier management policy includes requirements in the procurement process to review environmental and social issues that can impact our business, our supplier's business and communities.

In 2013, we:

- Screened 159 procurement engagements, representing over \$450 million in purchasing against environmental and social criteria.
- Launched the RBC Supplier Code of Conduct, which reinforces our commitment to work with responsible suppliers.



\$450 MILLION
PURCHASES SCREENED AGAINST
ENVIRONMENTAL AND SOCIAL CRITERIA

Managing environmental and social risk

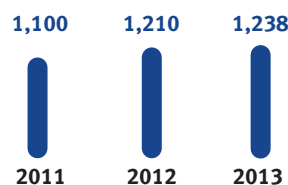
Since developing our first environmental policy in 1991, we have been committed to prudent environmental risk management. Our established suite of **environmental and social risk management policies** facilitates the assessment of transactions to determine whether social and environmental issues may pose a credit, reputation or legal risk for the bank and its clients. We proactively review and update these policies and processes to address regulatory changes, emerging and evolving issues, and international best practices. RBC employs an in-house team of environmental professionals, who provide expertise across the enterprise, whenever required. We will continue to work with our clients and business partners to mitigate environmental risks and support environmentally responsible business models.

In 2013, we:

- Conducted over 1,230 detailed environmental credit risk assessments, which may involve the review of technical environmental reports; discussions with consultants, clients and lawyers; and recommendations on remediation plans.

Detailed environmental credit risk assessments in Canada and the U.S.

 **1,238**
ENVIRONMENTAL
CREDIT RISK
ASSESSMENTS



- Recommitted to the revised Equator Principles (EP III). We also:
 - Launched an updated enterprise-wide Policy on Social and Environmental Risk Management for Projects to align with the revised Equator Principles and trained corporate lenders and risk managers on how to implement it. This Policy applies to project finance, project finance advisory services, project-related corporate loans and bridge loans.
 - Participated in working groups related to the Equator Principles scope, applicability to High Income OECD Countries and the use of Free Prior and Informed Consent standards for First Nations consultation in projects.



8 POLICIES TO HELP OUR CLIENTS MANAGE ENVIRONMENTAL AND SOCIAL RISK

Equator Principles

The Equator Principles are a voluntary set of guidelines that help financial institutions address the environmental and social risks associated with project finance. RBC was the first Canadian bank to sign the Equator Principles in 2003, and we recommitted to the revised Principles in 2006 (EP II) and 2013 (EP III). Equator Principles signatories must “report annually on their implementation processes and experience in applying the Equator Principles in project finance.” In 2013, RBC participated as an advisor and provided project finance for 14 projects that qualified under the Equator Principles.

Analysis of Equator Principles projects		2013	2012	2011
Number of projects ¹⁰	Equator Principle Category A	0	0	0
	Equator Principle Category B	14	9	13
	Equator Principle Category C	0	1	2
	Total Projects Reviewed	14	10	15
By region	OECD ¹¹ countries	14	10	14
	Other	0	0	1
By sector	Energy (non-renewable)	7	4	6
	Energy (renewable)	6	5	5
	Infrastructure	1	1	4
RBC role	Advisory only	3	0	7
	Finance and advisory	11	10	8

Exposure to Conflict Minerals

Conflict minerals are minerals mined in conditions of armed conflict and human rights abuses, notably in the Democratic Republic of the Congo. The profits from the sale of these minerals finance continued fighting in the region, as well as fighting for control of the lucrative mines. New SEC rules in the United States will require certain companies to disclose their use of conflict minerals in manufacturing.

In 2013, we engaged a team from the University of Waterloo to complete a study on RBC’s exposure to conflict minerals through our financing and procurement activities. Since the information and communications technology (ICT) sector is identified as a primary sector of concern for conflict minerals, the study included a review of our top 25 ICT clients and top 25 ICT suppliers. While we found that the majority of our ICT clients and suppliers are addressing the issue proactively, we are evaluating how best to review a company’s exposure to conflict minerals in our environmental and social risk management and supplier management policies.

Offering environmental products, services and advice

RBC seeks to offer products and services that contribute to environmental sustainability or that empower clients to reduce their environmental footprint.

In 2013, we:

- Traded approximately 88 million tonnes of carbon credits through our Capital Markets carbon emissions trading group. Since the inception of the trading group in 2008, RBC has traded over 557 million tonnes of carbon credits. The majority of the trading volume centres around the European Union Emissions Trading Scheme (EU ETS), the largest compliance market in the world. We also trade in the California Cap-and-Trade Program, Regional Greenhouse Gas Initiatives, Climate Action Reserve, and other offset and voluntary markets.

Carbon credits traded
(millions of tonnes)



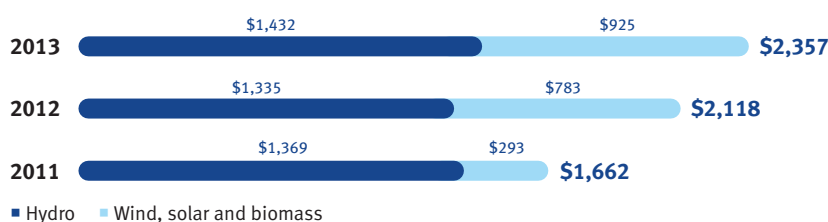
- Offered our clients seven socially responsible investing (SRI) mutual fund products through RBC Global Asset Management™ using SRI research and ESG (Environmental, Social and Governance) screens developed by Sustainalytics, as well as segregated SRI portfolio management services for institutional and high-net-worth clients. Total assets under management for the combined SRI products and portfolios totalled nearly \$3.3 billion.

Socially responsible investments, total assets under management
(millions of dollars)



- Supported the growth of the emerging renewable energy sector. As of October 31, 2013, RBC had nearly \$2.4 billion in loan and trading line exposures to companies whose predominant business is renewable energy, as illustrated below.

RBC renewable energy lending (in millions of \$)



- Invested \$2.45 million of RBC capital in early-stage for-profit companies from the RBC Generator Fund, a \$10 million pool of capital dedicated to financing enterprises addressing social and environmental challenges. The investments included \$1 million in [Renewal3](#), \$700,000 in [Social Capital Partners](#), \$500,000 in the [MaRS Cleantech Fund](#) and \$250,000 in [Greengage Mobile](#).
- Launched a number of homeowner advice pieces through RBC Insurance™ focused on protecting homes against water damage. Climate change is causing an increase in the frequency and severity of extreme weather events, and as a consequence, economic losses caused by natural catastrophes are already having an impact on homeowners across Canada.
- Introduced a new product for small business and commercial clients – the [RBC Energy Efficiency Lending program](#) helps business clients assess energy-saving opportunities, and lends them the funds to help realize those savings. Loans are structured to minimize the impact on existing cash flow by including the expected energy cost savings in the loan amortization schedule.
- Invested more than US\$721 million in 74 affordable housing projects in 23 U.S. States through the [RBC Tax Credit Equity Group](#), which regularly invests in LEED and other green-certified affordable housing projects.



First for Solar Financing in Canada

RBC led the issuing of the first investment-grade-rated solar bond issued in the Canadian bond market. Rated BBB by DBRS, the \$172 million project bond was backed by two operating solar farms located near Sarnia, Ontario, owned and operated by Next Era Energy. Combined, they have an energy production capacity of 40 MW and utilize solar panels manufactured by First Solar. Bond holders are repaid from the revenue generated by the renewable energy the project feeds into the electricity grid under a 20-year power purchase agreement with Ontario Power Authority. The transaction, in which RBC acted as the Bookrunner and Sole Lead, drew meaningful interest from a broad base of Canadian bond investors and was awarded the North American Project Bond Deal of the Year by Project Finance Magazine/Euromoney.

Promoting environmental sustainability

We try to use our influence and resources to promote environmental sustainability within our organization and in the communities where we operate. The RBC Environmental Blueprint describes our approach to promoting environmental responsibility.

In order to stay on course, we will foster a deeper understanding of the links among the environment, communities and the economy; and work with our stakeholders and leading organizations to accelerate progress toward shared environmental goals.

In 2013, we:

- Sponsored events that promoted thought leadership on water issues, cleantech and renewable energy, including the Canadian Water Summit, CleanTech North, Ontario Clean Water Agency Technology Showcase, Meeting of the Minds, Global Clean Tech 100 and Banff Venture Forum.
- Collaborated with NGOs, including Earth Day Canada, Pembina Institute, Toronto Atmospheric Fund, Sustainable Hamilton, Pollution Probe, Greening Greater Toronto, A.D. Latornell, Environmental Defense and World Wildlife Fund on a variety of programs and events.
- Remained active members of business-sector and industry associations, including the Conference Board of Canada's Business Council for Sustainability, the Canadian Green Building Council, the UN Environment Programme Finance Initiative, the U.S. Environmental Bankers Association, the EXCEL Partnership, Partners in Project Green and Greening Greater Toronto.
- Implemented a number of environmental programs with the help of our partners at the 2013 RBC Canadian Open and RBC Heritage golf tournaments to achieve carbon neutrality, divert waste from landfill and reduce the environmental impacts associated with transportation. We also sponsored the Experience Green "Sustainability in Golf" conference in South Carolina.



RBC employees participating in a community makeover on RBC Blue Water Day.

Evolve Sustainable Design Competition

In partnership with B+H Architects, RBC launched the inaugural Evolve Sustainable Design Competition, which challenged post-secondary students in architecture and engineering programs to design an environmentally sustainable bank branch. Participants were asked to develop innovative yet practical concepts for achieving extreme energy efficiency while minimizing water consumption. Two teams from the University of Waterloo were awarded the first place and runner-up prizes of \$5,000 and \$2,500, respectively. The top-ranked students also earned the opportunity to meet with some of Canada's top architecture professionals at an awards ceremony in Toronto.



- Celebrated our fourth annual RBC Blue Water Day in June, where more than 18,000 employees from 22 countries participated in 322 community makeovers to help protect water. Employees were asked to participate in one of three Makeover activities: a clean-up, planting or cultivating awareness activity.
- Donated \$7 million to environmental charities globally, including \$6.7 million to water-related causes through the [RBC Blue Water Project](#).



Donations to environmental charities (in millions of \$)



Appendix A: RBC Environmental Footprint Report¹²

Intensity Factors	2013	2012	2011	Units
Global full-time equivalent (FTE) employee count	74,247	74,377	73,243	FTE
Global floor area	2,064,046	2,152,096	2,231,242	m ²
GHG Emissions				
GHG emissions from energy use	126,531	159,491	180,768	tonnes
GHG emissions intensity from energy use	0.070	0.083	0.088	tonnes/m ²
GHG emissions from employee travel	26,668	24,373	26,330	tonnes
GHG emissions intensity from employee travel	0.41	0.38	0.40	tonnes/FTE
GHG reductions from green power purchases ¹³	-3,810	-3,278	-3,612	tonnes
Total GHG emissions	149,389	180,586	203,487	tonnes
Total GHG emissions intensity	2.33	2.86	3.11	tonnes/FTE
Energy Footprint				
<i>Direct Energy Use¹⁴</i>				
Branches ¹⁵	88,058	77,913	92,666	MWh
Major properties ¹⁶	103,051	89,433	89,515	MWh
Data centres and processing centres ¹⁷	3,022	6,729	9,891	MWh
Total direct energy use, all properties	194,131	174,075	192,072	MWh
<i>Indirect Energy Use¹⁸</i>				
Branches	197,448	218,954	261,643	MWh
Major properties	157,309	166,372	179,702	MWh
Data centres and processing centres	93,565	93,940	99,630	MWh
Total indirect energy use, all properties	448,322	479,266	540,975	MWh
Total energy use, all properties	642,453	653,341	733,048	MWh
Total energy intensity, all properties	0.35	0.34	0.37	MWh/m²
Paper Footprint				
Office paper	2,676	2,932	3,070	tonnes
Office paper use per FTE	41.8	46.4	47.0	kg/FTE
Marketing and direct mail paper	5,436	5,632	6,218	tonnes
Total paper	8,111	8,563	9,288	tonnes
Travel Footprint				
Air travel ¹⁹	195,827,512	162,215,733	173,033,667	km
All other modes of travel ²⁰	30,720,747	33,484,715	37,316,733	km
Total travel	226,548,259	195,700,448	210,350,400	km

The environmental data reported here has been provided to us by third-party suppliers, vendors and service providers and includes information that was available at the time of publication. We continue to work to improve the reliability and coverage of the environmental data so that it accurately reflects our enterprise-wide environmental footprint.

ENDNOTES

- ¹ This reduction is primarily a reflection of a decrease in the carbon intensity of the electricity grid in Ontario, where we have a significant concentration of properties. Other programs that contribute to GHG reductions include energy management programs, green information technology (IT), property portfolio renewal strategies and renewable electricity purchases.
- ² Since 2009, we have been able to measure and report on both direct and indirect energy consumption for all of our properties located in Canada, the U.S. and the British Isles, which represents reporting from 88% of our global floor area. We do not yet have complete energy data for our properties in the Caribbean and other international locations, which represent a small, but growing, proportion of our total footprint.
- ³ Data coverage for paper includes our Canadian, U.S. and British Isles operations (86% of employees), but not those in the Caribbean and other international locations.
- ⁴ Full-time equivalent (FTE) employee count.
- ⁵ Leadership in Energy and Environmental Design (LEED) is the predominant green building certification standard in North America.
- ⁶ BOMA BEST (Building Environmental Standards) is a national program that was launched in 2005 by BOMA Canada to address an industry need for realistic standards for energy and environmental performance of existing buildings based on accurate, independently verified information.
- ⁷ BREEAM, widely used throughout the UK and the rest of Europe, is a building rating system that aims to quantify and reduce the environmental impacts of buildings.
- ⁸ Waste data coverage represents 30% of our global floor area. There is limited value in accurately tracking waste data across our North America branch network (over 1,500 locations) when our waste stream is non-hazardous and primarily consists of paper, cardboard, organics and recyclables. The complexities in accurately tracking waste data have not impeded our progress in initiating programs to reduce waste and improve recycling and diversion rates.
- ⁹ Water data coverage represents 54% of our global floor area. We have reporting from many of our Canadian and U.S. branches and major properties where we receive water invoices, but at many of our facilities, which are leased, water costs are embedded in our rent.
- ¹⁰ When a project is proposed for financing, we categorize it in accordance with the environmental and social screening criteria of the International Finance Corporation. Category A represents projects with potentially significant adverse social or environmental impacts that are diverse, irreversible or unprecedented. Category B represents projects with potentially limited adverse social or environmental impacts that are few in number, generally site-specific, largely reversible and readily addressed through mitigation measures. Category C represents projects with minimal or no social or environmental impacts. For additional information, visit www.equator-principles.com.
- ¹¹ OECD is the Organisation for Economic Co-operation and Development. To view OECD member countries, please refer to the OECD website.
- ¹² Data coverage includes our Canadian, U.S. and British Isles operations (86% of employees or 88% of our property portfolio based on area), but not those in the Caribbean and other international locations.
- ¹³ Our green power purchases are carbon neutral and represent a reduction in GHG emissions.
- ¹⁴ Direct energy use refers to our use of fossil fuels (natural gas, heating oil and propane).
- ¹⁵ Branches are categorized as RBC-owned or -leased properties with an area of less than 25,000 ft² (<2,320 m²).
- ¹⁶ Major properties are categorized as facilities with an area greater than 25,000 ft² (>2,320 m²).
- ¹⁷ Data centres and processing centres consist of 13 back-office locations across Canada, the United States and the British Isles that have high electricity demands.
- ¹⁸ Indirect energy use refers to our use of purchased electricity.
- ¹⁹ The increase in air travel is a reflection of the continued expansion of our businesses into European and Asian markets.
- ²⁰ Other modes of travel include rail travel and automobile travel for business purposes (rental and personal vehicles). Note that we do not have reporting for rental vehicles in the British Isles.



RBC
Environmental
Blueprint™