



2012 Bell Canada

Energy Consumption and Greenhouse Gas Emissions Report

Addendum to the Bell Canada 2012 Corporate Responsibility Report

INTRODUCTION

This report serves as an addendum to the 2012 Corporate Responsibility Report and to provide details about Bell's energy consumption and greenhouse gas reduction initiatives.

A commitment to greenhouse gas reduction and environmental protection in general aligns with our sustainability vision and with our strategic imperative to achieve a competitive cost structure.

Bell makes every effort to be environmentally responsible when deploying and maintaining networks, building our offices, and consuming energy and other resources. Bell team members save energy and reduce greenhouse gas emissions by minimizing the time fleet vehicles idle, increasing energy efficiency at Bell facilities, and using smart meeting tools such VideoZone as an alternative to travel. We are visible supporters of broader environmental initiatives such as Earth Hour when most Bell buildings and signs on major venues such as the Bell Centre go dark.

A HISTORY OF COMMITMENT TO THE ENVIRONMENT

For more than 20 years, Bell has operated numerous programs to reduce the environmental impact of our operations. Bell has achieved ISO 14001 certification for our environmental management system, the only Canadian telecommunications company to do so.

This year, to ensure the company's corporate responsibility strategy is well integrated and objectives are aligned across all parts of our business, the Executive Vice President, Corporate Services has specific corporate responsibility objectives tied to his performance assessment. These include maintaining ISO 14001 certification and optimizing energy efficiencies, among others. Bell's greenhouse gas emissions are measured yearly following the WRI-WBCSD Greenhouse Gas Protocol methodology and have been externally verified by Enviro-accès according to the ISO-14064 standard.

ORGANIZATIONAL BOUNDARIES

Bell applies the operational control approach to determine the scope of reporting on its subsidiaries and divisions. The following list identifies the businesses included in the organizational boundaries:

Bell Canada	Expertech	Bell Technical Solutions	Nexxia	The Source
Bell Mobility	Northwestel	Bell Mobility Channels	Bell TV	Bell Media

LEVEL OF UNCERTAINTY

Bell has a level of uncertainty estimated at below 10% for all of its subsidiaries, based on historical data and boundary validation for all types of greenhouse gases where we observed variations between 4 and 8%. Variations stem from human error in reporting, incorrect calculations, and variable electricity emissions factors. We systematically validate our data by comparing year over year, and we request explanations from business units on variations above 5%.

BASE YEAR SELECTION, GHG REDUCTION GOAL AND METHODOLOGY

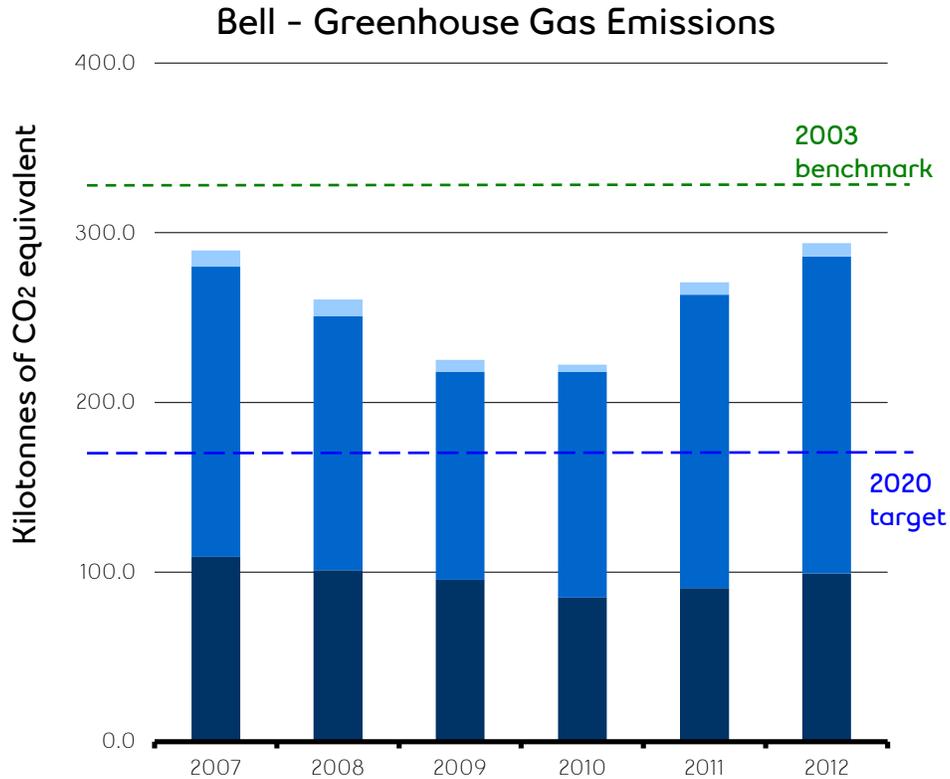
Bell's base year for GHG emissions reduction is 2003. This was chosen because it is the first year that Bell was able to collect all of the information for energy consumption for all types of energy in all its subsidiaries and business units. Our goal is to reduce GHGs to 50% of 2003 levels by 2020.

The methodology for gathering energy consumption information as follows:

1. For energy consumption numbers where we have direct information - i.e. cost or quantity of energy used (kWh, L, GJ etc.) - the data is acquired by the accounts payable group of the business unit, then entered into our financial system. The aggregated information is then sent to the Climate Change subject matter expert (SME) in the Corporate Responsibility and Environment Team for analysis and reporting.
2. For energy consumption numbers that are estimated, and where energy consumption is blended into the building rent fees, the information is calculated using an average consumption per square foot. This average is calculated from direct energy consumption information from a representative sample of buildings.

OUR PERFORMANCE

In 2012, our GHG emissions increased by 9% over 2011, and we were 8% less than the base year of 2003.



Our target: To reduce our GHG emissions by 159 kilotonnes (50% below 2003 levels), by the end of 2020.

PERFORMANCE INDICATORS

	2012	2011	2010	2009
Financial intensity (scope 1 & 2) (Tonnes of CO ₂ equivalent/\$million revenues)	16.7	15.8	15.2	15.0
Activity intensity (scope 1 & 2) (Tonnes of CO ₂ equivalent/1000 clients)	16.3	14.9	13.1	13.2
Intensity per employee (scope 1 & 2) (Tonnes of CO ₂ equivalent/thousand employees)	6.0	5.6	5.5	5.3

GREENHOUSE GAS EMISSIONS

	Variation 2011/2012	2012	2011	2010	2009	
Scope 1	Vehicle fleet	6%	76,114	71,703	60,250	68,027
	Fossil fuels for buildings and generators	9%	15,303	13,164	16,705	19,844
	Cooling systems (HFCs)	31%	7,735	5,728	6,806	7,503
	Total scope 1	9%	99,151	90,595	83,761	95,374
Scope 2	Electricity for network, heating, cooling and lighting buildings	8%	186,890	172,910	149,949	122,818
	Total scope 2	8%	186,890	172,910	149,949	122,818
Scope 3	Air travel – Domestic haul	9%	507	463	278	365
	Air travel – Short haul	-2%	1,792	1,822	1,247	1,423
	Air travel – Long haul	16%	3,654	3,150	783	2,530
	Rail travel	52%	73	48	61	208
	Vehicle rentals and employee vehicles for company business	-2%	1,862	1,892	1,912	2,448
	Total scope 3	7%	7,888	7,376	4,280	6,794
	Total	8.5%	293,929	270,881	237,990	224,985

ENERGY CONSUMPTION RESULTS

(Scope 1 and 2, GWh)

	2012	2011	2010	2009
Electricity for network, heating, cooling and lighting buildings	1,317	1,215	1,109	936
Fuel for buildings and generators	53	45	58	69
Fuel for vehicle fleet	298	295	273	303
Total	1,668	1,555	1,440	1,308

SCOPE 1 GHG EMISSIONS OF SPECIFIC GASES

(Tonnes of CO₂ equivalent)

	2012	2011	2010	2009
CO ₂	89,538	83,110	75,375	86,116
CH ₄	85	79	69	77
N ₂ O	1,793	1,677	1,511	1,678
HFC	7,735	5,728	6,806	7,503
Total	99,151	90,595	83,761	95,374

ANALYSIS

Bell energy and greenhouse gas footprint numbers have been restated going back to 2010 to take into account the changes in our organization, specifically:

- The acquisition of The Source in 2010. Energy consumption data and related carbon footprint for its distribution centre are now included.
- The creation of Bell Media with the acquisition of CTV and related assets in 2011. Energy consumption data and related carbon footprint for its buildings, fleet and employee travel are now included.
- The new Ontario electricity emission factor that increased by 25% (from 0.130kg to 0.150kg of CO₂ equivalent/kWh). Ontario accounts for 58% of our electricity carbon footprint.

The largest portion of the increase in Bell's carbon footprint is attributable to the growth of our business.

We continually expand and enhance our mobile networks to accommodate the increased demand for bandwidth. This increased demand is driven by the proliferation of smartphones, which enable services such as mobile Internet browsing, instant messaging, Bell Mobile TV and the like. As a result, our mobile network energy consumption increased 30% in 2012 alone.

In addition, because of our significant investment in expanding our networks, including the largest fibre-to-the-home installation in the country in the Québec City region, we needed to expand our fleet of service vehicles. We now have 36 energy-efficient hybrid or electric vehicles in our fleet (see Vehicle Fleet section below). Even so, because of the company's growth, we saw a 6% increase in net vehicle energy consumption in 2012.

Our networks include the largest collection of data hosting centres in the country. These data centres house services such as managed hosting and cloud computing to the country's largest organizations, and Bell's remote collaboration tools, such as videoconferencing and teleconferencing, all of which are gaining in popularity. These data centres enable customers to reduce their energy use, and therefore their carbon footprints. However, this has the inverse effect of increasing Bell's energy use¹ and therefore our carbon footprint. Fortunately, in many cases, we buy cleaner energy. The net outcome is a decrease in greenhouse gas emissions from a combined perspective. For more details about the carbon reduction enabling effect of ICT services, please consult the [Smarter 2020 report](#) published by the Global e-Sustainability Initiative.

VEHICLE FLEET

We continued to deploy telematics on our vehicles in 2012. Now installed on more than 8,700 vehicles, telematics provide round-the-clock vehicle positioning and vital engine information, helping service technicians to be more productive. More efficient dispatching of our technicians enables Bell to reduce distances driven and fuel consumed.

In 2012 we replaced older vehicles with new, more fuel-efficient models, such as the Ford Transit. Our program includes ongoing deployment of more fuel-efficient vehicles and the promotion of eco-driving and reduced idling through the Eco-Team challenge. Our 2012 anti-idling campaign resulted in a fuel consumption reduction of 5%, representing a savings of 160,000 litres of fuel, or about 367,000 kg CO₂ emissions. We are extending this campaign into 2013.

¹ Data centre energy consumption increased 30% in 2012

On another front, Bell joined nine other companies in the largest electric vehicle trial in Canada managed by Hydro-Québec. Bell's participation was extended to mid-2013 and supports the Québec government's electric vehicle strategy.

In 2013, Bell will test a hybrid plug-in passenger car – a Ford C-Max – at our work centre in Laval as part of another Québec government program called EV400. We have also done the same in Ontario. At the end of 2012, we had 36 vehicles in our hybrid fleet. We continue to explore the potential of electric and hybrid vehicles to meet the demands of the work we do while minimizing our environmental footprint and reducing greenhouse gas emissions.

BUILDINGS

Reflecting our vision to be an industry leader, Bell is an active participant in the growing trend toward building assessment and certification.

At the end of 2012, we had 38 buildings certified BOMA BEST, the Canadian industry standard for commercial building sustainability certification based on the internationally recognized [Green Globes™](#) environmental assessment platform. The program provides a consistent framework to assess six key areas of environmental performance, including energy, water, waste reduction, emissions, indoor environment and the overall environmental management system. It is particularly relevant to retrofitting existing facilities. We have targeted another eight buildings for certification in 2013.

We also design new buildings to comply with Leadership in Energy and Environmental Design (LEED) benchmarks. Those cover standards for sustainable site development, water efficiency, energy efficiency, materials selection and indoor environmental quality.

Our Montréal and Mississauga campuses both feature LEED-certified buildings. In fact, the Montréal Nun's Island campus is the largest corporate LEED building in Québec.



Our newest data centre, in the Gatineau area of Québec, won the Green Enterprise IT Award for facility design innovation from the prestigious Uptime Institute, a third-party data centre research, education and consulting organization. Opened in the summer of 2012, the centre is designed to be in the top 2% of data centers in North America for the most effective use of power, using green hydro power on a grid separate from most National Capital Region users. It also complies with the strictest security standards, including the use of advanced biometric access controls. We expect this facility will achieve LEED Gold certification in 2013.

Also in 2012, we retrofitted our Toronto data centre with lighting controls to reduce the energy spent on lights in a 90,000-square-foot, six-storey building, only parts of which are used around the clock. The system ensures areas of the building are lit when occupied but not when empty. Annual energy savings as a result are approximately 76%.

COMMUNICATIONS TECHNOLOGY

Bell limits its carbon emissions by using its technologies to further reduce its own energy consumption, team travel and consumption of material resources.

Virtualization

Virtualization enables a whole new vision for enterprise computing – a consolidated, optimized approach to the data centre as service delivery centre. The Information Technology team addresses new business challenges related to optimizing budget, space or infrastructure,

consolidating servers or storage, or being more efficient and cost effective with power and cooling.

Through consolidation and virtualization, we decommissioned 760 servers in 2012, reducing capital requirements and saving approximately 3.6 million kWh annually – enough energy to heat 362 households for a year. That also results in an annual reduction of 206 tonnes of greenhouse gas emissions.

Conferencing solutions

Using our communications technologies, Bell team members held more than 101,000 VideoZone conferences, 418,178 AudioZone calls, and a monthly average of 35,000 Live Meeting sessions, improving efficiency and helping reduce the need for travel. Those same technologies are helping our customers address their own environmental-protection and cost-reduction priorities every day.

Getting people to use videoconferencing means making facilities available. In 2012 we installed VideoZone conference systems in 14 additional rooms to encourage virtual meetings.

Teleworking

Activity	2012	2011
Number of employees equipped to telework	23 098	22 193
Number of permanent teleworkers	1 501	1 447
Number of occasional teleworkers	21 597	20 746

For the second straight year, the number of employees working from home either part time or full time increased slightly, reflecting the increasing effectiveness of communications tools and services

that substitute for commuting. This trend not only gives employees more flexibility in balancing their work and their home lives, it also reduces the amount of fuel and other resources used during a commute.

ELECTRONIC BILLING

We issued 29.5% of bills electronically in 2012, an increase of 6.9 percentage points over 2011, and 11 percentage points over our objective. By reducing the use of paper, we saved approximately 41,000 trees which have the potential to naturally capture approximately 5,180 tonnes of CO₂. The balance of our bills was printed on paper that is certified by the Forest Stewardship Council (FSC). We will continue to promote paperless billing in a number of ways, including automatically registering new customers to electronic billing and charging a fee for new customers who still want to receive a paper bill. Our 2013 objective is to increase e-billing to 35% of all bills produced by Bell.

	2012	2011
% of total bills	29.5%	22.6%

At Bell we recognize that sustainability is an issue of global importance, and we operate with a comprehensive vision for sustainability, enabling responsible growth, connecting communities and safeguarding the environment. Our sustainability commitment rests on solid principles and values, and a highly effective, practical management system. We reinforce individual accountability through a clear management structure to ensure we identify and properly address responsibility issues and initiatives throughout the organization.

It is thanks to this commitment that we are able to make improvements daily in the way we operate our business.

Please email us at responsibility@bell.ca and tell us what you think of this report and sustainability at Bell. If you'd like more details about our corporate responsibility and environment activities please visit our website at BCE.ca/responsibility.