



BOUNDARIES

NOT INCLUDING THE SOURCE AND BELL MEDIA

GREENHOUSE GAS EMISSIONS – 2011 REPORT

Addendum to the Bell Canada 2011 Corporate Responsibility Report

Our greenhouse gas emissions are measured yearly following the WRI-WBCSD Greenhouse Gas Protocol methodology and has been externally verified by Enviro Acces according to the ISO-14064 standard.

Bell applies the approach of financial control to determine the scope of reporting on its subsidiaries and divisions.

Bell has a level of uncertainty estimated at below 10% for all its subsidiaries, in light of discussions and initiatives to identify the scope of data by Business Unit, for all types of greenhouse gases. We have formalized the acquisition of data through our environmental management system ISO14001, where each business unit has identified a point of contact - environmental coordinator - which ensures to gather information pertaining to his business unit.

Our base year (2003) for our GHG emission reduction goal to 50% by 2020, was chosen because it is the first year that Bell was able to collect all the information of energy consumption for all types of energy in all its subsidiaries and business units.

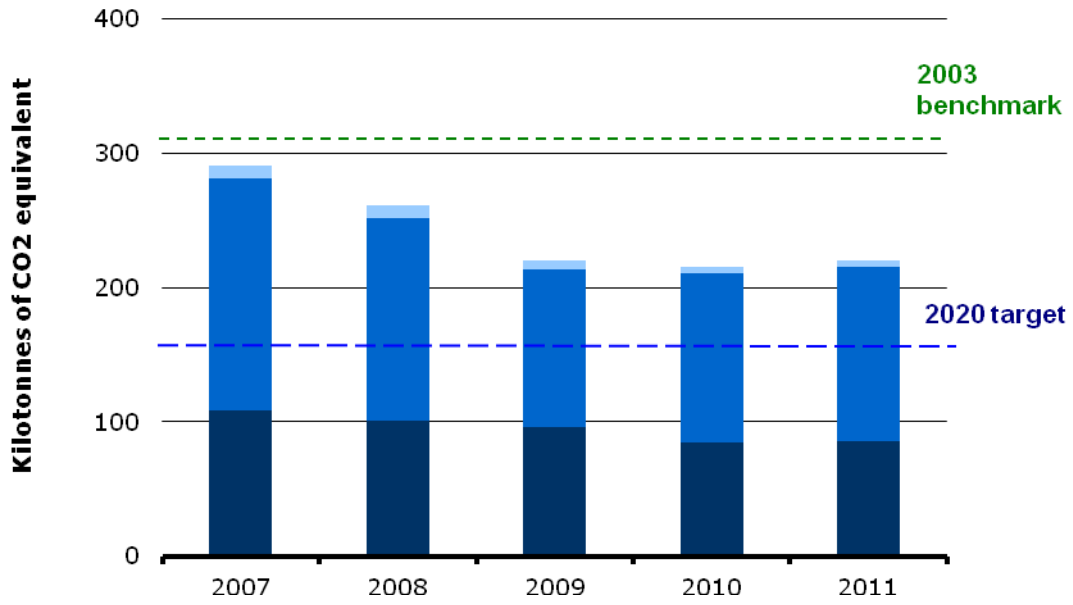
The methodology to gather energy consumption information is in two folds.

- a) 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 manually by the account payable of the business units, then input into our financial system, where the information is then aggregated and then sent by the respective environmental coordinator to the CR&E team
- b) For energy consumption numbers that are estimated – and uniquely where we have Bell operations in buildings where the energy consumption is blended into the rent fees – the information is extracted using an average consumption per square foot. This average is calculated from the buildings where we do have direct information on the consumption. Then the Hélios system – used by Nexacor, our building services provider – computes from direct information a cost per unit, per province, for each type of energy. The resulting energy consumption and cost is then calculated manually by Nexacor.

Our performance

In 2011, our GHG emissions increased by 2 % over 2010, and we were 31% less than the base year of 2003.

Bell - Greenhouse Gas Emissions



Our target: To reduce our GHG emissions by 159 kiloton's (50% under 2003), by the end of 2020.

Performance indicators

	2008	2009	2010	2011
Financial Intensity scope 1 & 2 (Tonnes of CO ₂ e / M\$ Revenues)	17.5	14.7	13.8	12.8
Activity Intensity scope 1 & 2 (Tonnes of CO ₂ e / 1000 clients)	11.9	11.9	11.9	12.1
Intensity per employee scope 1 & 2 (Tonnes of CO ₂ e /thousand employees)	6.4	5.2	5.0	4.5

Greenhouse gas emissions

	2008	2009	2010	2011	Variation 2010/2011
Scope 1					
Vehicle fleet	69,296	68,027	60,250	66,222	10%
Fossil fuels for buildings and generators	24,014	19,855	16,521	12,988	-21%
Cooling systems (HFCs)	7,503	8,249	7,649	6,389	-16%
Total Scope 1	100,813	96,131	84,419	85,598	1%
Scope 2					
Electricity for network, heating, cooling & lighting buildings	150,114	117,771	127,059	129,431	2%
Total Scope 2	150,114	117,771	127,059	129,431	2%
Scope 3					
Air Travel - Domestic Haul	324	407	311	269	-14%
Air Travel – Short Haul	2,704	1,543	1,365	1,031	-24%
Air Travel - Long Haul	3,039	2,495	867	1,537	77%
Rail Travel	310	208	61	40	-34%
Vehicle rentals & employee vehicles for company business	3,417	2,448	1,912	1,892	-1%
Total Scope 3	9,794	7,101	4,516	4,769	6%
Total	260,721	221,003	215,994	219,799	2%

Energy consumption results (Scope 1 and 2) (GWh)

	2008	2009	2010	2011
Electricity for network, heating, cooling & lighting buildings	1,265	935	1,105	1,128
Fuel for buildings and generators	117	94	77	60
Fuel for vehicle fleet	289	278	251	270
Total	1,671	1,307	1,433	1,458

Scope 1 GHG emissions of specific gases (Tonnes of CO₂e)

	2008	2009	2010	2011
CO ₂	92,578	86,126	75,191	77,575
CH ₄	81	77	69	73
N ₂ O	1,726	1,678	1,510	1,569
HFC	6,428	8,249	7,649	6,389
Total	100,813	96,131	84,419	85,598

Analysis

The increase in 2011 is mainly due to the rapid expansion of our network and increased demand for our services, which required more electricity (scope 2) and fuel (Scope 1) to run additional vehicles.

Through careful management, we were able to limit the increase of emissions with a variety of energy reduction initiatives within our fleet, buildings and data centres. It was also possible because of our use of Green ICT solutions.

Communications technology

Bell uses its technologies to further reduce energy consumption, team travel and the use of material resources, all of which contribute to reducing carbon emissions

Vehicle fleet

We continued deployment of telematics at Bell in 2011. Now installed on 8,000 vehicles, telematics provides round-the-clock vehicle positioning and vital engine information, and helps service technicians be more productive. By becoming more efficient at dispatching our technicians, we reduce distances driven and fuel consumption.

We continued to deploy more fuel-efficient vehicles, and to promote eco-driving and reduced idling through the Eco-Team challenge. An anti-idling campaign is being conducted again in 2012.

Bell is proud to participate in the largest electric vehicle trial in Canada. For the pilot project's third phase, Hydro-Québec and Mitsubishi Canada have provided 10 Bell team members with electric vehicles to use for their day-to-day activities,



Buildings

In 2011, Bell's Montréal campus won the 2011 Building of the Year Award from the Building Owners and Managers Association (BOMA) of Québec. Six other Bell buildings in Québec, also received BOMA BEST certifications for management practices that protect the environment.

Our efforts to reduce our global environmental footprint include energy reduction initiatives such as:

- Energy recovery from cooling systems to provide hot water and space heating
- Motion sensors to turn lights on and off
- Green roofs and heat-reflecting roofing materials
- Energy-efficient lighting and optimized lighting levels
- Programmable thermostats and optimized heating and cooling systems
- Energy-saving measures, such as optimized lighting and more efficient cooling systems installed in co-operation with landlords.
- Dampers operation with enthalpy control to reduce the need for mechanical cooling and enhance free-cooling operations
- Install thermostats on standby power diesel generator block heaters



Overall, we estimate these initiatives prevented the consumption of 35 GWh in 2011. This corresponds to 6% of Bell's building electricity consumption, or enough energy to heat 3,500 households for a year.

As an ENERGY STAR® participant, Bell also uses many ENERGY STAR qualified products including laptop computers, LCD screens, multifunction printers and refrigerators. Bell also encourages all team members to purchase ENERGY STAR qualified products whenever possible.

Data centres

The two latest additions to Bell's network of data centres use innovative clean technology to provide customers with co-location, managed hosting and next-generation cloud computing services such as software-as-a-service and hosted unified communications.

The new centre in Markham, Ontario uses power from a local district energy utility, which produces emergency power and cold water on a massive, highly efficient scale, augmented by a solar array on the roof of the data centre. It also repurposes the cold water used to cool equipment in the centre by returning the now warm water to the community where it is used to help heat nearby schools and community centres.

The second data centre in Buckingham, Québec is designed to meet LEED Gold environmental standards and to be in the top 2% of data centres in North America for the most effective use of power. The 7,600 square meter (82,000 square foot) building uses green hydro power on a grid separate from most National Capital users. It will also comply with the strictest security standards, including the use of advanced biometric access controls.

Initiatives Using ICT Solutions

Teleconferencing services, telematics, server virtualisation, electronic billing and teleworking are all solutions that can rapidly produce, and at minimal costs, very significant environmental, social and economic benefits at national level.

Our own experience shows it works!

Virtualization

Through virtualization, we decommissioned 664 servers, reducing capital requirements and saving approximately 2.8 million kWh per year – enough energy to heat 280 households for a year. That also amounted to a reduction of 159 tonnes of greenhouse gases.

Conferencing solutions

Team members conducted more than 1.1 million teleconferences in 2011 and also substituted web and video conferences for travel. That reduced travel costs and eliminated the emission of an estimated 2,300 tonnes of greenhouse gases during the year.

Electronic billing

We issued 22.6% of bills electronically in 2011, an increase of 6.9 percentage points (43.9%) over 2010. By reducing the use of paper, we saved approximately 33,000 trees and avoided the emission of about 4,100 tonnes of greenhouse gases. The balance of our bills were 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 2012 objective is to increase e-billing to 28.4% of all bills produced by Bell.

We recognise that increasing the use of ICT services may entail an increase of our own energy consumption. However, according to WWF-Canada, GHG reductions that could be enabled by ICT solutions in the wider economy are approximately 10 times larger than the emissions produced by the ICT sector. Learn more and read the WWF-Canada report [*Innovating toward of low carbon Canada: using technology to transform tomorrow.*](#)