



for a living planet[®]



Innovating toward a low-carbon Canada:

Using technology to transform tomorrow

Executive Summary

Canadians now recognize that we must act quickly to reduce greenhouse gas emissions (GHG) if we hope to stem the rising tide of climate change. We understand that change is required from literally every corner of society – policy change, economic change, regulatory change and behavioral change to achieve a low-carbon economy and lifestyle.

Information and Communications Technology (ICT) has a key role in facilitating these changes.

This report outlines how, in relatively short order, ICT can enable greenhouse gas reductions of approximately 20 million tonnes a year in Canada, an amount equivalent to taking approximately 3.2 million cars off the roads. This adds up to roughly 7% of the reduction Canada needs to meet its Kyoto obligation. More aggressive application of existing ICT products and services, and adoption of new ones on the horizon, can further stretch these reductions to upwards 36 million tonnes a year, certainly within a 2020 timeframe.

Achieving these goals is both eminently possible and utterly necessary. Happily, they will also provide a number of ancillary benefits. Since most reductions accrue from energy savings, there is a significant bottom line value totaling more than \$30 billion from avoided fuel/energy costs, air travel, rent, paper and postage, often with an almost-instant payback to consumers, business and government. This figure does not include increased productivity and great employee satisfaction, as well as other potentially quantifiable benefits.

The report proposes six key recommendations for specific action by government, business, the ICT sector, as well as the public at large:

- Build a tele-work culture, because work is an activity, not a place
- Share the ride and the car to get more travel with less fuel
- Drive smarter vehicles to optimize the fuel burn
- Increase e-conferencing, e-collaboration and e-training and e-efficiency
- Get un-physical – with e-products and e-transactions
- Create towering efficiencies by smartening up Canada’s buildings

Some of the actions required to implement these recommendations may be controversial. But to get to where we need to go in terms of CO₂ reductions, we need to accept the necessity of more high-occupancy vehicle lanes that discourage single occupant car travel and increase tele-working. We need to more aggressively promote efficiencies like car/ride sharing, and tele-conferencing.

More mainstream fiscal measures – to be sure, like faster write-off schedules for teleconferencing and energy control equipment – are also effective and will add to the business case. Others will need a shift in work culture, requiring businesses and governments to promote, enable and build confidence in tele-work rather than expecting employees to travel to a central office location. Regulatory action would quickly and predictably set an expectation for ICT-enabled energy efficiency in vehicles and buildings.

In addition to controlling its own GHG emissions, the ICT sector has an active role to play in developing and deploying products and services enabling reductions across economic sectors that are at least ten times larger than its own.

The great Canadian economist John Kenneth Galbraith defined leadership as “the willingness to confront unequivocally the major anxiety of their people in their time.” Global warming ranks as the chief anxiety of our own era. Indeed, it may be the greatest threat we’ve faced in human history. If there’s a time for leadership, it’s unequivocally now.

Business and government must begin to show the leadership our times require. One effective way to start is to advance the opportunities and solutions ICT has to offer.

For the full report, please visit:
www.wwf.ca/hitech_lowcarbon
or
www.bce.ca/responsibility



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WWF-Canada

245 Eglinton Avenue East, Suite 410
Toronto, Ontario M4P 3J1
Telephone: 416-489-8800
Facsimile: 416-489-3611
ca-panda@wwfcanada.org
www.wwf.ca