



Cool IT Challenge

“I have always believed that IT is an engine of an efficient economy; it can also drive a greener one.”
—Michael Dell, Forbes Magazine Nov 2009

IT and Climate Change

Climate change is already having a significant social, ecological and economic impacts. Scientists warn that in order to get our climate system back into balance and avoid truly catastrophic impacts, greenhouse gas pollution must be reduced 40% in industrialized countries by 2020 (as compared with 1990 levels) and must peak globally by 2015.

International climate negotiations have failed to deliver a sweeping agreement that would achieve necessary global emissions reductions. While it is ultimately the responsibility of governments to set the framework for a clean energy revolution, required changes can only be achieved with bold leadership from both the private and public sectors. In the prolonged absence of governmental progress, business has an increasingly important role to play.

Greenpeace launched the Cool IT Challenge in 2009 to call on Information Technology (IT) companies to power technological solutions needed to fight climate change. The IT sector is uniquely positioned to help the world shift to a prosperous low carbon economy, and Greenpeace is urging IT companies to put forth innovation, mitigate their operational impacts, and drive significant policy changes in the mutual interest of business and the climate.

Emphasis on Solutions

IT companies have a central role to play in moving us toward essential greenhouse gas reduction goals by creating an entirely new platform for how we produce, deliver and use energy. IT can enable economy-wide emissions reductions of 15 percent by 2020 by offering “smart” energy solutions and alternative models for the delivery of goods and services.

Just as the power of the internet has generated millions of new video producers, journalists, and authors, IT energy-related solutions have the potential to drive a decentralized system of energy production, which would put consumers in better command of their electricity use and pave the way for dramatic improvements in energy efficiency and renewable energy usage.

Reduction Potential of IT Technologies In Other Sectors

| | Reduction Potential by 2020 In Gigatons of CO ₂ Equiv | % of Global Emissions |
|------------------|------------------------------------------------------------------|-----------------------|
| Buildings | 2.4 GtCO ₂ | 4.6% |
| Industry | 1.1 GtCO ₂ | 2.1% |
| Power Generation | 2.1 GtCO ₂ | 4.1% |
| Transportation | 2.2 GtCO ₂ | 4.2% |
| Total | 7.8 GtCO₂ | 15% |

Source: Smart 2020: Enabling the Low Carbon Economy in the Information Age – <http://www.smart2020.org>

IT's Growing Footprint

As the IT sector experiences rapid expansion, so too will its carbon footprint without a significant increase in the use of renewable electricity. Cloud computing, which relies on centralized data storage infrastructure to deliver real-time information from the internet, is quickly becoming a predominant IT business model. As IT companies increase their consumption of electricity in order to fuel the cloud, they must implement policies to avoid increasing demand for coal and other dirty forms of energy.

Greenpeace's report, *Make IT Green: Cloud Computing and its Contribution to Climate Change*, reveals that the current growth rate of cloud-based computing poses a significant threat to the IT sector's ability to maintain a low carbon profile. Companies like Facebook, Google, and other large players in the cloud computing market must advocate for policy change to ensure that, as their appetite for energy increases, so does the supply of renewable energy.

Advocacy Leadership

The shift to an IT-enabled renewable energy economy is not going to happen without a fight. Fossil fuel energy companies have benefitted enormously from the status quo, and are at best interested in a slow transition in order to maximize their profits and investments (i.e. electric utilities), and at worst willing to fight any policy that would significantly reduce demand for their primary product (i.e. oil and coal companies). The IT industry must break away from these entrenched positions to deliver cutting edge solutions and bold advocacy leadership on a local, national, and international level.

Cool IT Leaderboard

In May 2009, Greenpeace's Cool IT campaign published the first Cool IT Leaderboard, a scoring system that analyzes IT companies' contributions to achieving global greenhouse gas emissions reductions of 15 percent by 2020. The Leaderboard is updated regularly to track the progress of the largest IT brands in three key areas:

1. Efforts to offer economy-wide technological **climate solutions** that contribute to global greenhouse gas reductions;
2. Initiatives to **reduce their own global warming emissions**;
3. Active engagement in **political advocacy** and support for science-based climate and energy policies.

Greenpeace's History With IT

Since 2004 Greenpeace has engaged with the electronics industry to green its supply chains and evaluate electronics brands on toxic chemical elimination, e-waste producer responsibility, and climate change. Greenpeace's quarterly Guide to Greener Electronics has become an industry staple, steadily evaluating electronics companies' policies and products across a range of environmental criteria. Through toxic chemical testing, exposure of illegal e-waste transfers, and promotion of greener alternatives, Greenpeace has catalyzed improvements to the environmental and health performance of companies like Apple, HP, Sony, Nokia, Philips, and others.

About Greenpeace

Greenpeace is an independent global campaigning organization that acts to change attitudes and behavior, to protect and conserve the environment and to promote peace.

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¹Climate Group and the Global e-Sustainability Initiative (GeSI). SMART 2020: Enabling the low carbon economy in the information age, 2008.

² <http://www.greenpeace.org/international/press/reports/make-it-green-cloud-computing>

³ <http://www.greenpeace.org/international/campaigns/toxics/electronics/how-the-companies-line-up>