

## **New study finds massive carbon reductions by broadband services**

### ***Study findings to be presented at webinar on 26 June 2012***

**19 June 2012, Brussels** – Increased use of simple and convenient online activities like teleworking and online shopping can reduce carbon emissions by millions of metric tons and deliver significant energy savings, according to a report issued today by the Global e-Sustainability Initiative (GeSI) with the support of BT, Deutsche Telekom, Ericsson and Verizon.

With a goal of investigating the link between broadband Internet usage and energy reduction, the study entitled “Measuring the Energy Reduction Impact of Selected Broadband-Enabled Activities Within Households” looked specifically at eight household-level activities that are enabled or enhanced by the use of broadband Internet access. Replacing more energy-intensive conventional activities, the studied areas were telecommuting, using the Internet as a primary news source, online banking, e-commerce, downloading and/or streaming media (music and video), e-education, digital photography and e-mail.

Assuming reasonable adoption of all eight activities, the six countries featured in the study could achieve net energy savings equivalent to 2 percent of their total energy consumption. The U.S. could generate annual net energy savings of about 336 million barrels of oil, equivalent to 2 percent of its total energy consumption. France, Germany, Italy, Spain and the U.K. could generate annual net energy savings of 164 million barrels of oil, also equivalent to 2 percent of the total energy consumption in these countries.

“The total savings in this report at first might seem small, but that is only because the eight activities we studied are a relatively small part of their respective economies,” explained John A. Laitner, director of economic and social analysis for the American Council for an Energy-Efficient Economy (ACEEE). “Even at this scale, these relatively small activities may generate a larger benefit, equal to the total carbon dioxide emissions impact of the ICT industry. The deployment of information and communication technology enabled practices and improvements can become a critical step toward a much more energy-productive and low-carbon economy.”

**[Note: Economist John A. Laitner, who led the GeSI study, will explain the findings during a webinar on 26 June 2012 at 17:00 CET/11:00 EDT. To register or learn more about the webinar, please visit <http://bit.ly/KYH9ea>.]**

Telecommuting provided the largest energy benefit across the EU-5 and U.S., generating about 83 to 86 percent of net energy savings respectively. Telecommuting practices may also have a significantly greater level of market benefit compared to other activities because additional benefits such as reduced driving time and more time with family and friends may accelerate market penetration to a greater degree than other ICT-related activities. The areas of least savings were online news and e-

education. In these cases, consumers are likely to continue old practices, such as reading a newspaper, while adopting new broadband-enabled activities.

Even larger savings may come from large-scale energy and infrastructure systems and feedback mechanisms enabled and coordinated through broadband technologies, according to the report. For example, increasingly popular home area networks (HANs) are being extended to bring “smart home” and a variety of home energy services quickly to market. Studies document the connection between feedback and awareness as they motivate reduced energy use in the home.

"This study reinforces the need to enact consistent policies and practices that can begin to deliver energy-efficiency benefits today and many years in the future," said Luis Neves, chairman of GeSI. "Greater use of the available and robust broadband infrastructure will continue to spur innovation and a greener economy while aiding the transition to a sustainable energy system."

In 2008, GeSI published the “SMART2020 study” that found that large-scale, systems-enabled broadband and information and communication technologies could deliver a 15 percent reduction in global greenhouse gas emissions and save up to EUR 600 billion by 2020. Building upon those findings, GeSI wanted to identify the key areas where the ICT sector can make the biggest contribution to sustainability within normal household activities in this most recent report. GeSI and several of its member companies—including BT, Deutsche Telekom, Ericsson and Verizon—contracted with Yankee Group and the American Council for an Energy-Efficient Economy (ACEEE) to explore the potential net energy reduction that might follow from additional broadband usage within U.S. and European households.

The report is available in its entirety at <http://bit.ly/L8dncY>.

#### **About GeSI:**

The Global e-Sustainability Initiative (GeSI) is a strategic partnership of the Information and Communication Technology (ICT) sector and organisations committed to creating and promoting technologies and practices that foster economic, environmental and social sustainability. Formed in 2001, GeSI’s vision is a sustainable world through responsible, ICT-enabled transformation. GeSI fosters global and open cooperation, informs the public of its members’ voluntary actions to improve their sustainability performance, and promotes technologies that foster sustainable development. GeSI has 31 members representing leading companies and associations from the ICT sector. GeSI also partners with two UN organizations - the United Nations Environment Program (UNEP) and the International Telecommunications Union (ITU) - as well as a range of international stakeholders committed to ICT sustainability objectives. These partnerships help shape GeSI’s global vision regarding the evolution of the ICT sector, and how it can best meet the challenges of sustainable development. For more information, see [www.gesi.org](http://www.gesi.org).

#### **About ACEEE:**

The American Council for an Energy-Efficient Economy acts as a catalyst to advance energy efficiency policies, programs, technologies, investments, and behaviors. For information about ACEEE and its programs, publications, and conferences, visit [aceee.org](http://aceee.org).

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