Recommendation L.1420 (Methodology for energy consumption and greenhouse gas emissions impact assessment of ICT in organizations) standardizes the requirements with which an organization should comply when assessing energy consumption and greenhouse gas (GHG) emissions.

This Recommendation will, on the basis of ISO 14064-1 and the GHG Protocol, allow ICT sector organizations to assess their energy consumption and GHG emissions over a defined period of time, and non-ICT organizations to assess the impact of ICT-related activities within their organizations.

A welcome addition to the field of environmentally-conscious ICT

Through standard methodologies to assess the environmental impact of ICTs, we move closer to international consensus on standards for climate change mitigation and adaption; environmentally friendly, energy saving technologies; and accurate energy efficiency and greenhouse gas emission accounting and verification.

The methodologies form a key building block for green ICT strategies, and will undoubtedly provide a firm foundation for designers, architects, engineers, developers and government authorities seeking to create eco-efficient, sustainable living environments.

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More information: http://www.itu.int/ITU-T/climatechange/

International Telecommunication Union

ITU-T
Standardized methodologies to assess the environmental impact of ICTs

11.2011   tsbpromo@itu.int

ITU

Standardized methodologies to assess the environmental impact of ICTs

ITU-T Study Group 5, the ITU-T's lead study group on the environment and climate change, has been investigating ways to leverage standardization as a means to green the ICT sector and, very importantly, to green the processes of other industry sectors. Improved resource efficiency is an essential goal to all sectors of our global economy, and the ICT sector has a central role to play in achieving this; particularly in the high energy-consuming sectors of building construction, transport, waste disposal and energy generation.

ITU-T has developed a set of standardized methodologies to assess the environmental impact of ICTs.

A set of standardized methodologies to assess the environmental impacts of ICTs will enable ITU and its Membership to voice its message clearly, accurately and consistently; increasing the credibility of claims regarding how ICTs might aid in mitigating and adapting to climate change.

The new standard methodologies will reinforce the role of ICTs by providing an accurate, reliable tool for assessing their environmental impact. It will generate figures upon which businesses can model future revenues, costs and efficiency gains provided by green ICTs; and figures enabling governments and regulators to identify the gains in social and economic welfare that green ICTs can achieve.

The Methodologies

Recommendation ITU-T L.1400 (Overview and general principles of methodologies for assessing the environmental impact of ICT) presents the general principles on how to assess the environmental impact of ICT, and outlines the different methodologies being developed to assess the environmental impact of: (a) ICT goods, networks, and services; (b) ICT projects; (c) ICT in organizations; (d) ICT in cities; and (e) ICT in countries or groups of countries.

Recommendation L.1410 (Methodology for environmental impacts of ICT goods, networks and services) provides a standardized way to assess the direct environmental impact of ICT goods, networks and services, as well as their indirect impact on the greenhouse gas (GHG) emissions of non-ICT industry sectors. It is based upon the life cycle assessment (LCA) methodology standardized in ISO 14040 and ISO 14044.

L.1410 addresses both first and second-order impacts of ICTs on the environment. 'First-order' effects refer to the impact created by the physical existence of ICT. 'Second-order' effects refer to the impact created by the use and application of ICT. This includes environmental load reduction effects which can be either actual or potential, for example; travel substitution (e.g reduced transport by car is actual – the car doesn't run – whereas by public transport it is potential – the plane, train or metro may still be running), transportation optimization, working environment changes, use of environmental control systems, use of e-business, e-government.

This Recommendation will provide a better understanding of the overall environmental impact of ICTs, granting manufacturers and service providers a reliable tool to assess and improve their environmental impact.