

Every challenge has its appropriate solution

ICT-BASED SOLUTIONS CAN REDUCE CO₂ EMISSIONS BY UP TO 15% WORLDWIDE*

- Smart grids
- Videoconferencing
- Teleworking
- Smart buildings
- eGovernment
- Virtual hosting
- Smart logistics
- eHealth



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DRIVING THE DIGITAL FUTURE

European Telecommunications Network Operators
→ committed to energy efficiency

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About ETNO

With its 40 member companies in 35 countries, ETNO represents Europe's leading providers of e-communications networks and services, accounting for a total turnover of about €250 billion a year, one million employees and two thirds of total sector investment. Back in 1996, ETNO launched its Environment and Sustainability Charter, demonstrating its members' commitment to reducing their carbon footprint. Thanks to measures to optimize energy consumption of their networks and data centres and increased use of renewable energy, ETNO members managed to continue reducing their CO₂ emissions despite an overall growth in broadband take up and traffic. Through their massive investment efforts, ETNO members are deploying high speed broadband access networks, directly contributing to the objectives of the Digital Agenda for Europe.

Achieving energy efficiency through a greater use of broadband-enabled solutions

It is widely recognised that a wider usage of ICT and broadband enabled applications can contribute to reduce up to 15% of CO₂ emissions worldwide by 2020. ETNO member companies develop products and solutions in areas such as smart buildings and logistics, teleworking, videoconferencing and smart grids, that directly enable citizens and businesses to realise energy savings and limit their CO₂ emissions, directly contributing to the EU CO₂ reductions targets.



ETNO Sustainability Commitment

The ETNO bi-annual Sustainability Report monitors progress made by the 22 signatories of the ETNO Sustainability and Environmental Charter created in 1996 and open to all players on the market. The signatories of the Charter account globally for a turnover of about €200 billion.

CO₂ emissions of signatories of the ETNO Sustainability Charter have decreased by 20% between 2006 and 2008 despite a significant increase in overall energy demand due to growing mobile and data traffic.

The continuous decrease in CO₂ emissions despite an overall growth of energy demand is the result of a strong commitment by ETNO members to optimise energy consumption. ETNO has contributed to the development of the codes of conducts on Energy Consumption of Broadband Equipment and on Data Centres and is promoting both within its membership.

90% of ETNO Charter signatories have engaged their suppliers in active cooperation programmes aiming at improving the overall sustainability performance of their supply chain. Waste management is another area where significant improvement is observed with a reduction of waste production by 7% and an increase of recycled waste by 10% between 2006 and 2008.

Promoting energy efficiency

Energy consumption is the single largest environmental impact of all telecommunications operators and therefore of all ETNO member companies. The bulk of ETNO members' energy use is related to consumption of electricity, which is used to power and cool their communication networks. It is the responsibility of all operators to ensure that energy consumption is kept to a minimum and to seek environmentally friendly alternatives.

The ETNO Task Force on Energy was created in June 2004 as a sub-group of the ETNO Corporate Responsibility Working Group. An ETNO energy policy has been developed and recommended to all ETNO members, experiences have been shared, pilot projects have been initiated and codes of conduct developed. The overall objective of the Energy Task Force (ETF) is to encourage maximum efforts in improving environmental performance with relation to energy production and consumption by:

- contributing to national and global efforts to reduce GHG emissions through energy efficiency and use of renewable energy sources;
- improving knowledge sharing through the use of benchmarking and case studies;
- demonstrating the viability of voluntary actions;
- providing members with tools that allow them to use the most efficient network equipment, scout for the most energy efficient network components, apply the most efficient cooling systems and run the most energy efficient data centres.

The GREEN Benchmark initiative: Towards more energy efficient modems & set top boxes

Deployment of power efficient implementation of ADSL and VDSL networking equipment could lead to a reduction of up to 60% of their power consumption as demonstrated by the results of the first phase of the home gateway energy consumption Benchmark called "G.R.E.E.N." (Green Router for Energy Efficient home Networking).

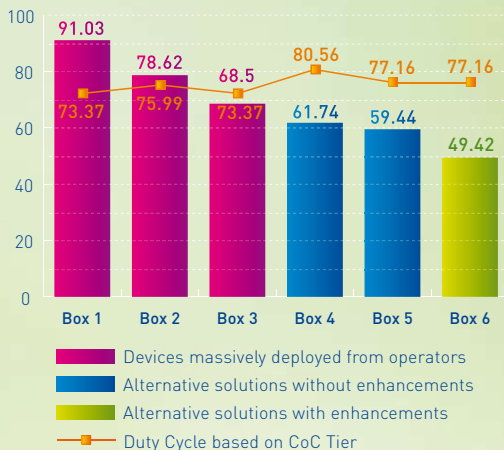
G.R.E.E.N has been developed with the support of the Home Gateway Initiative (HGI) and provides a snapshot of current state of the art in energy efficiency of Home Gateways, showing the advantages of power consumption optimisation when the HG is supporting services or is performing a low level of operation. ETNO's G.R.E.E.N. benchmark highlights the current best practice in meeting the power targets for Home Gateways set out by the European Code of Conduct on Broadband Equipment for the various power modes.

On a basis of 20 millions of deployed ADSL Home Gateways, the efficiency improvements would result in a yearly reduction of CO₂ emissions of about 568000 tons; that is equivalent to the emissions produced by more than 312000 cars.

For VDSL, on the basis of 5 millions of deployed Home Gateways, the yearly reduction of CO₂ emissions would be close to 257000 tons, corresponding to emissions of more than 142000 cars.

ADSL HG results compared with EU CoC energy targets

Yearly Duty Cycle ADSL Home Gateways | kWh



VDSL HG results compared with EU CoC energy targets

Yearly Duty Cycle VDSL Home Gateways | kWh

