# Mobilising information and communication technologies to facilitate the transition to an energy-efficient, low-carbon economy

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The Committee on Industry, Research and Energy adopted the own-initiative report drawn up by Patrizia TOIA (S&D, IT) welcoming the Commission Communication on mobilising Information and Communication Technologies (ICTs) to facilitate the transition to an energy-efficient, low-carbon economy (COM(2009)0111) and endorses its broad lines.

The report states that ICT is indispensable for decoupling economic growth from GHG emissions using three basic strategies for mitigation of climate change: a reduction of energy consumption, an increase of energy efficiency, and an integration of renewable energies. It recalls that the ICT sector accounts for some 8% of electricity consumption and 2% of carbon emissions in Europe, and notes that the roll-out of smart meters can cut energy consumption by up to 10%, promote the wider use of distributed generation (microgeneration) and reduce losses in low-capacity networks, thereby promoting the spread of renewable energies. Accordingly, the report calls for:

- the Commission to submit by the end of 2010 a set of recommendations to ensure that smart metering is implemented in accordance with the timetable set out in the third energy market package and that a set of minimum functionalities for smart meters is defined;
- the introduction of new energy services and an innovative, harmonised and interoperable European smart grid, taking into account all proven best practices employed in some Member States, particularly as regards the management of real-time, two-directional power and information flows.

Members note that the only means of ensuring the comparability of the data produced in the various Member States is to adopt a **common methodology f**or measuring energy consumption and carbon emissions and a **comparative methodology framework** for calculating cost-optimal levels of minimum energy performance requirements in the building sector. They point, furthermore, to the need for **rapid standardisation of ICTs** as a minimum requirement for interoperability.

The committee states that in households and in the building, transport, logistics and industrial sectors ICTs may be used in a variety of ways to **improve energy efficiency and management.** These applications have an impact on electricity distribution, lighting, heating, refrigeration, ventilation and air conditioning and the opportunities ICTs offer in terms of measurement, monitoring and automation. Furthermore, if ICTs can help to save energy by enabling data to be continuously monitored in order to improve energy efficiency in many sectors, the ICT sector – bearing in mind the exponential growth of its own energy consumption – should set an example by undertaking to cut its consumption by a very significant margin. This should apply first and foremost to data centres.

Members go on to discuss the importance of **developing broadband in Member States** as a means of securing economic growth, providing access to new systems and applications for an ever larger number of EU citizens and businesses, and meeting the energy efficiency targets the EU has set for 2020. Member States are asked to facilitate the availability of broadband internet to all EU citizens in order to ensure equal access to online services which can reduce the need to travel. Members call for online services (eBanking, eCommerce, eGovernment, eLearning, eHealth) and teleworking to be rolled out with a view to improving the quality of service provided to the public and, at the same time, reducing carbon emissions.

On the issue of **transport,** Members urge the Commission to increase its efforts in the use of ICTs, in particular the use of monitoring and measuring instruments. They believe that the application of ICTs to passenger transport and the availability of new technologies on roads and their interaction with weather conditions, with on-board vehicle display, will make it possible to travel and transport goods more efficiently, more quickly and more safely. They stress the importance of ICT in the planning of a new European transport policy. Any such plans from the Commission should include ICT solutions, amongst others, in the regulation of traffic flows and to increase intermodality in the transport sector and optimise the balance between different modes of transport. The report stresses the need for a common strategy on the development of electric cars. It also urges the Commission to prioritise smart cars and smart roads projects, as well as R&D pilot projects for V2V and V2R devices, which can open up new business opportunities for European ICT companies.

The committee stresses the importance of the following:

- significant investments both for R&D and the utilisation of existing technologies, with Member States providing the incentives for both public and private energy efficiency investments;
- investment in energy efficiency education which should start from the schools;
- broad information campaigns to explain the benefits of smart metering and ICT to citizens, which is crucial to avoiding misinterpretation and lack of public support;
- the measurement, monitoring and automation of consumption will be part and parcel of optimised electrical network architecture, the purpose of which must be to ensure energy efficiency, on the one hand, and to incorporate renewable energy sources, energy storage management and the recharging of future electric vehicles, on the other;
- smart grids on the Member State and European level in order to exploit the benefits of smart metering, and the Commission is asked to consider European scale investment programs.

The Commission is asked to:

- establish a **European web portal containing the best practices on usage of ICTs** to improve energy efficiency, which could provide useful information to consumers and public authorities;
- take into account the less developed regions of the Union in ICT planning and to secure assets for the purpose of **co-financing the implementation of smart meters** and other ICT projects in these regions to assure their participation and to prevent their exclusion from common European ventures;
- consider drafting, on the basis of the work carried out by the smart grids task force, a **communication on smart metering** which identifies the obstacles to widespread use of smart metering, lays down a roadmap that sets smart objectives and targets for the roll-out of such systems in the Member States, and establishes a system for pooling best practice in this area;
- lay down a concise action plan for the reduction of energy consumption through the use of **ICT in the buildings of EU institutions**, in order to set the example;
- propose, by the end of 2010, a **timetable with ambitious and binding ICT-driven energy-saving goals for all ICT sectors** and the Member States, with a view to meeting the carbon emissions reduction targets;
- come forward with a financial instrument, as part of the EU funding, in order to encourage SMEs to develop their sustainable low carbon energy technologies;
- adjust the EU budget in order to **accelerate the deployment of cost-effective low carbon technologies**, in particular aiming at meeting the financial needs for the implementation of the Strategic Energy Technology Plan (SET-Plan);
- promote in collaboration with appropriate international partners the development of **common international standards for carbon emission** reporting of companies in order to enable them to measure their own emissions in a comparable and efficient way;

- support the development of **off-site processing**, given the vast potential of this technology to contribute to energy efficiency and to reduce the waste normally associated with regular upgrading of ICTs;
- take full account of ICT saving potential in the implementation of Directive 2009/125/EC on ecodesign requirements for energy-related products.

Lastly, the report calls for the introduction of measures to guarantee the privacy of personal information in relation to smart metering.