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DRAFT REPORT

on mobilising Information and Communication Technologies to facilitate the transition to an energy-efficient, low-carbon economy
(2009/2228(INI))

Committee on Industry, Research and Energy

Rapporteur: Patrizia Toia

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MOTION FOR A EUROPEAN PARLIAMENT RESOLUTION

on mobilising Information and Communication Technologies to facilitate the transition to an energy-efficient, low-carbon economy
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The European Parliament,

– having regard to the Commission communication of 12 March 2008 to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on mobilising Information and Communication Technologies to facilitate the transition to an energy-efficient, low-carbon economy (COM(2009)0111), and to the subsequent recommendation of 9 October 2009 (C(2009)7604),

– having regard to the Commission communication entitled 'Investing today for tomorrow's Europe' (COM(2009)0036),

– having regard to the conclusions of the European Council meeting of 11 and 12 December 2008, in particular the climate and energy targets laid down therein,

– having regard to the Commission communication on a European economic recovery plan (COM(2008)0800),

– having regard to the Commission communication entitled 'Addressing the challenge of energy efficiency through information and communication technologies' (COM(2008)0241),

– having regard to the political agreement between Parliament and the Council on the proposal for a directive of the European Parliament and the Council on the energy performance of buildings (recast) (COM(2008)0780),

– having regard to the Commission communication of 16 December 2008 entitled 'Action plan for the deployment of intelligent transport systems in Europe' (COM(2008)0886),

– having regard to the Commission communication entitled 'Action plan for energy efficiency: Realising the potential' (COM(2006)0545),

– having regard to Rule 48 of its Rules of Procedure,

– having regard to the report of the Committee on Industry, Research and Energy and the opinion of the Committee on the Environment, Public Health and Food Safety (A7-0000/2010),

A. whereas controlling climate change requires the adoption of specific measures to reduce energy consumption and carbon emissions,

B. whereas the ambitious climate and energy targets the Union has set for 2020 can be met only by means of a mix of energy measures and other relevant measures,

C. whereas the information and communication technology (ICT) sector accounts for some

8% of electricity consumption and 2% of carbon emissions in Europe (1.75% resulting from the use of ICT products and services and 0.25% from their production),

D. whereas ICTs can help to improve energy efficiency by means of a wide range of applications; whereas, furthermore, insufficient use has been made of such applications to date,

E. whereas trade organisations, in particular in the transport and building sectors, have a key role to play in reducing energy intensity by promoting the use of ICTs by those working in their sectors,

F. whereas compatible methodologies and tools are required in order to measure and monitor the efficiency of energy consumption; whereas the roll-out of smart meters can cut energy consumption by up to 10%,

G. whereas use of these technologies is directly linked to the roll-out and development of broadband in Europe,

H. whereas the measures taken to date under the European research and innovation policy and exchanges of information and good practice need to be incorporated to best effect,

I. whereas some spatial planning, energy supply, public building and traffic management responsibilities and powers lie with national, regional and local authorities,

J. whereas it is important to raise consumer awareness of new technologies and their potential economic and energy benefits,

K. having regard to the environmental benefits brought by ICTs in giving the various sectors an online presence,

1. Welcomes Commission's communication and subsequent recommendation and endorses their broad lines; considers that the process of choosing a legislative instrument and adopting cogent joint measures at European level must take account of the administrative and economic burdens for the EU's industry and public,

2. Asks the Commission, therefore, 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 in order to give consumers improved capabilities to manage their energy consumption, and to facilitate 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;

3. Notes that the only means of ensuring the comparability of the data produced in the various Member States and improving energy efficiency is to adopt a common methodology for measuring energy consumption and carbon emissions; points, furthermore, to the need for rapid standardisation of ICTs with a view to ensuring that technologies and services of benefit to EU citizens and businesses are placed online; takes the view that standardisation should cover, in addition to measurement functions, access

to contractual information and consumption data, communication with the operators' central systems over the electricity grid and remote connection and disconnection of supply;

4. Considers that ICTs can help to save energy by enabling data to be continuously monitored in order to optimise public and private energy consumption and improve energy efficiency in many sectors;

5. Notes that in the building, transport, logistics, lighting, electricity, heating and ventilation sectors ICTs may be used in a variety of ways to improve energy efficiency and energy management;

6. Stresses, in this connection, that all energy-using sectors must make the greatest possible contribution to improving energy efficiency; notes that meeting the overall energy saving target at European level will depend on the aggregate savings made at all lower levels;

7. Considers that priority should be given to boosting the European economy by investing in new technologies and in particular developing broadband in the various 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;

8. Calls for online services (banking, eCommerce, eGovernment, eHealth) to be developed and rolled out with a view to improving the quality of service provided to the public and, at the same time, reducing carbon emissions; calls on the Member States to develop such services, which, in addition to saving people time, lead to a reduction in urban travel;

9. Recommends that the scope of the Energy Performance of Buildings Directive be extended to include smaller buildings and incorporate ICTs into the energy efficiency implementing measures; considers that energy performance certificates for public buildings should be made publicly available and easy to compare;

10. Maintains that more widespread use of ICTs will stimulate European industry and boost the market in new energy efficiency technologies; believes that research has an important role to play in this process of modernisation; calls on the Member States to provide incentives for public and private energy efficiency investment geared to designing and developing easily replicable technologies to improve the quality of the environment in urban areas;

11. Maintains that no time should be lost in promoting smart metering, with a view to optimising energy production and electricity grids;

12. Commends those Member States that have already initiated smart metering pilot projects, and urges the other Member States to make progress in this area as swiftly as possible; calls on the Commission to cofinance the greatest possible number of large-scale projects, drawing on existing financial and research instruments for this purpose;

13. Welcomes the establishment of a smart metering task force within the Commission and recommends that it take due account of the opinions of all stakeholders, in particular

consumers; asks the Commission to provide Parliament with regular progress reports on its work;

14. Calls on the Commission to consider drafting, on the basis of the work carried out by the task force, a communication on smart metering which

    a. identifies the obstacles to widespread use of smart metering,

    b. puts forward a procedure for the swift drafting of a common minimum functional specification for smart metering systems,

    c. lays down a roadmap for the roll-out of such systems in the Member States, and

    d. establishes a system for pooling best practice in this area;

15. Considers it essential for the Member States to agree, by the end of 2010, on a common minimum functional specification for smart metering systems, with a view to providing consumers with information on their energy consumption and enabling them to manage it as effectively as possible;

16. Calls on the Commission to lay down a binding timetable to which all ICT sectors and the Member States must adhere, with a view to meeting the carbon emissions reduction targets;

17. Instructs its President to forward this resolution to the Council, the Commission and the governments and parliaments of the Member States.

EXPLANATORY STATEMENT

In December 2008, the European Union set ambitious energy saving and carbon emissions reduction targets for 2020. With a view to meeting those targets, the Commission communication of 12 March 2009 identifies information and communication technologies (ICTs) as a means of improving energy efficiency in the individual Member States.

The role of ICTS

ICTs can help to:

monitor and manage energy consumption in various sectors, in particular the building and transport industries,

and to provide new applications and technologies to improve the use of natural resources and foster the use of cleaner production and industrial processes.

More widespread use of ICTs can therefore help to improve energy efficiency within the Union and make EU industry more competitive. The countless applications on offer, which have been underused to date, have considerable energy-saving potential in many economic sectors. These include public and private lighting, building heating and air conditioning control, traffic control, logistics and transport, and online services.

The Commission has calculated that ICT-based systems can cut energy consumption in buildings – currently put at some 40% of overall energy consumption in Europe – by up to 17%, and transport carbon emissions by up to 27%.

One important means of rationalising energy use is smart metering, which provides consumers with comprehensive real-time information on their energy consumption and its cost.

Smart metering allows two-way information flows between network operators, energy suppliers and consumers. According to some studies, the roll-out of smart metering could lower energy consumption by up to 10%.

Commission position

Following the publication of the communication of 12 March 2009, on which this own-initiative report is based, the Commission opened broad public consultations which, with valuable contributions from experts and sector-specific studies, clarified the manner in which ICTs can help to improve energy efficiency.

A number of economic sectors within Europe in which the use of ICTs will enable the ambitious energy saving targets to be met were identified, as was the role the Commission should play in fostering the use of these new technologies.

One of the main obstacles to the widespread use of ICTs is the lack of common measurement, quantification and management methodologies and tools for smart metering as a means of measuring energy consumption and carbon emissions.

The Commission's recommendation of 9 October 2009 accordingly called on the ICT sector to formulate, by the end of 2010, common methodologies for establishing a common specification for smart metering. It also proposes a roadmap for the introduction of smart meters in European households and looks at the various legislative options open with a view to speeding up progress towards the targets set for 2020.

Rapporteur's position

The rapporteur endorses the broad lines of the Commission communication and recommendation. She considers, furthermore, that more widespread use of ICTs will stimulate European industry and boost the new technologies market. On that basis, the rapporteur believes that greater emphasis should be placed on a number of priority means of meeting the EU targets. These include:

- the standardisation of measuring instruments: a large number of the obstacles to the rapid roll-out of ICT tools and innovations may be attributed to the lack of common measurement methods and tools. In the rapporteur's view, no time should be lost in adopting binding measures and a precise timetable with which all firms operating in the sector must comply. With a view to this, the Commission should take due account of the measurement criteria already in use in some parts of Europe which have proved to make a tangible contribution to lowering energy consumption and improving energy efficiency, thus bringing significant economic benefits to end-users. This should form the best practice on the basis of which to establish a technological lowest common denominator for Europe. Standardisation should cover both measurement functions and access to contractual information and consumption data, communication with operators' central systems over the electricity grid and remote connection and disconnection of supply. Furthermore, the remote handling of the vast majority of commercial transactions and the main metering operations will also have a positive effect in terms of reducing carbon emissions, by obviating the need for on-site intervention. A similar approach should be taken to gas consumption metering, bringing the benefits of smart metering to the natural gas supply grid. Lastly, the roll-out of smart metering throughout Europe is of fundamental importance to smart cars, on which mobility will be based in the near future. The legal instrument that should be chosen is that which will enable standardisation to be achieved fastest. In this connection, the use of a recommendation should not be ruled out, if the legislative approach is shown to involve too many financial and administrative complications.
- the launch of pilot projects: with a view to ensuring the mass roll-out of ICTs, the rapporteur considers that inter-sector partnerships should be encouraged and local and

regional authorities should be made aware of the energy efficiency benefits that ICTs can provide. With a view to this, the Commission and the Member States should make greater efforts to launch pilot projects, drawing on existing tools and research programmes or devising new tailor-made projects.

- the wide range of ICT applications: improving energy efficiency requires the adoption of a mix of measures to reduce consumption and improve management of the production and supply of services. The rapporteur points to the major contribution that ICTs can make to meeting the joint energy targets that have been sets and takes the view that applications that have been underused to date should in future be put to more widespread use in the various economic sectors. The rapid roll-out of ICT-based solutions also calls for the mass roll-out of broadband.
- dissemination of good practice: Europe's population is increasingly concentrated in urban areas. Improvements in the way that medium-sized and large towns are organised and run will therefore be an important factor in meeting the ambitious carbon emissions reduction and energy efficiency targets. The rapporteur stresses that the use of ICTs in organising and running urban areas can make a major contribution towards improving energy efficiency. The 'smart cities' project and the 'Covenant of Mayors' initiative have shown the way forward. Efficient urban organisation achieved through the use of ICTs can substantially reduce the energy impact of urban areas. Action should be taken to disseminate good practice and raise local decision-makers' awareness of the benefits that ICTs have to offer.