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Single market for gas & electricity • Smart Grids Task force • Synergies Telcos - Utilities

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Energy security and climate change are becoming more and more prominent on political agendas worldwide and across all sectors of the economy, so that it ranks highest among the EU's priorities. The EU is aiming for a 20% increase in energy efficiency, raising the share of EU energy consumption produced from renewable resources to 20% and 20% reduction in EU greenhouse gas emissions, by 2020.

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European Smart Grids will promote the Intelligent Energy Supply Chain that will optimize, control, secure and sustain the procurement and supply of cleaner distributed energy anticipating increased demand till 2020 and beyond. ICT-based innovations will provide one of the potentially most cost-effective means to help Member States achieve the 2020 targets. It is important to emphasize that infrastructure renewal and grid modernization is critical to the economy and economic growth, particularly in a globally competitive environment.

The efficient deployment of Smart Grids should exploit synergies between telecommunication and energy operators at infrastructure and services level. In order to facilitate broadband access in places where there are no service offerings fulfilling the DAE (Digital Agenda for Europe) targets, there is a need to introduce measures at EU level aiming at reducing costs for the roll-out of high speed broadband access networks. Smart Grids offer a possibility to put broadband infrastructure to dual use (for both broadband and smart energy services), either by the utility itself, or via effective joint undertakings between the energy utilities and telecom operators.

Within EG4 DG CONNECT called for ideas for projects of common interest under the Regulation on guidelines for trans-European Telecommunications networks (COM(2011)657). The work of the group was to support and motivate the potential beneficiaries in building cooperation between both sectors – energy and telecommunication. The European Council has significantly reduced the proposed budget for funding of broadband infrastructure under COM(2011)657 and encourages the Member States and Regions to set broadband as a top priority in their future ESIF (European structural and

investments funds).

Making use of Structural Funds will support projects with cost-to-performance ratios that are too high to be attractive for commercial stakeholders. The largest cost component of deploying communication networks (up to 80%) is civil engineering. In addition to facilitating broadband deployment, there is a potential for reducing both costs and environmental impact if synergies are established in the implementation of civil works, for example by the re-use of existing ducts or sharing of infrastructure owned by energy utilities.

The Smart Energy Services rely on investments in deployment of communications infrastructure at national and cross-border level. Defining and exploiting synergies through forming infrastructure partnerships and through cross-service provision will foster the deployment of the smart grids. Such arrangements would provide appreciable efficiency gains (faster deployment at a reduced cost, avoiding unnecessary overlapping of broadband infrastructure), market opportunities and scope for Utilities and Telcos to diversify their traditional business models and move into each other's markets: a win-win situation for all market players and ultimately for EU consumers. However, for various reasons - including uncertainty (esp for Telcos) around access to energy consumption data, misgivings by utilities on capability of Telcos to offer security and reliability, regulation favouring capital investment versus operational costs; lack of commercially successful precedents – there is limited market growth to date. If anything, we may end up with a monopoly situation, where utilities build their own data systems and EU-wide interoperability is compromised. Fostering collaboration between Telcos and Utilities will develop and offer Smart Energy Services in a competitive market. Therefore a few "lighthouse projects" are needed to convince the two sectors of the benefits of collaboration and to convince investors on the certainty of recovering their capital.

On the other hand, to achieve interoperability and interconnection between the broadband and energy networks, strong coordination of the civil engineering projects and initiatives at European level is essential. The results of studies exploring best practices across Europe will be used in the work of European and international standardisation bodies. In addition, on the basis of best practices, requirements for investments and obligations for co-deployment of infrastructure will be explored.

The project proposal submitted by Deutsche Telekom "Connected life and work" in Friedrichshafen serves to illustrate the potential for new markets and jobs: it involves municipalities from Germany, Austria and Switzerland situated around Lake Constance and interconnects 3 national networks to establish economic operation of renewable energy sources and energy efficiency services.

Silver Spring Networks' project idea uses next generation machine-to-machine (M2M) architecture for smart grids, smart meters and smart cities. The project idea is for a large-scale M2M infrastructure spanning both the ICT and energy categories. The suggested ubiquitous M2M network would consist of peer-to-peer radio mesh technology and next generation TV white spaces or alternatively coupled with optimised LTE-M or 3G platforms.

If the right conditions for replicability are put in place, the impact at EU level can be assured and interoperability and cost-effective and efficient deployment of Smart Grids will be achieved.

(Telecommunications Infrastructure Deliverable 2012/2013)

Contact:

Newsroom Item Type:

- Projects news and results [1]

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- Action 70: Support partnerships between the ICT sector and major emitting sectors [3]
- Action 71: Assess contribution of smart grids and define minimum functionalities to promote interoperability [4]
- Action 73: Member States to agree common additional functionalities for smart meters [5]

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