Energy

‘Smart cities’ rebound, but need financing

By Dafydd ab Iago | Monday 19 October 2009

Cities are the EU’s largest energy consumers, representing 80% of final energy demand according to some estimates. The idea of ‘smart cities’ - a long time dream of environmentalists - is finally bouncing back after suffering political setbacks at EU level. The project would make the most of technological and other progress to radically reduce cities’ carbon footprints. But is enough money going to be made available?

SETBACK

Despite the attractiveness of the idea, smart cities suffered a shocking setback, in November 2008, when the European Commission bowed to pressure from EU leaders to remove, from the European economic recovery plan, €500 million earmarked for energy efficiency and renewables under a ‘smart energy cities’ project. The recovery plan, now being implemented, foresees €5 billion investment in energy projects and rural internet so as to stimulate the EU’s economy.

The €500 million for smart energy cities was withdrawn from drafts of the recovery plan at the very last minute. This was despite the high impact of the project for short-term economic stimulus and job creation when compared to capital-intensive projects, like carbon capture and storage (CCS) or construction of gas and electricity interconnections.

COMMISSION STEALS IDEA

Despite the negative news, the idea is still alive. One clear sign of this is a ‘smart cities initiative’ in the Commission’s communication on financing low carbon technologies under the Strategic Energy Technology (SET) plan. Although non-legislative, the communication should eventually flow into the EU budget. Drafts of the communication mentioned a figure of €11 billion being committed to a smart cities initiative.

The scheme appears to be getting equal attention, at least in the Commission’s communication on financing energy technologies, as other European initiatives, such as those for wind, solar, electricity grid, sustainable bioenergy, carbon capture and storage, nuclear fission, as well as fuel cells and hydrogen. In the Commission’s proposal, the smart cities initiative supports cities and regions testing and demonstrating the feasibility of going beyond the EU’s energy and climate objectives at city level. This means aiming for a 40% reduction of greenhouse gas emissions through sustainable production, distribution and use of energy by 2020.

According to the Commission, a smart cities initiative should activate a “massive” market uptake of energy efficient and low carbon technologies for buildings, energy networks (heating and cooling, and electricity) as well as transport. There should be new approaches for demand management, planning and organisational innovation leading to low carbon zones within cities and, eventually, low carbon cities and regions.

ELITE SMART CITIES

Gérard Magnin, executive director of Energie-Cités, is happy that the Commission is finally recognising the importance of shifting energy culture in cities. “A few years ago, this was not the case,” he says. He is, however, concerned that the Commission’s proposal concentrates on only some 25 to 30 European cities. There should be a greater spread rather than a selection of one or two cities per member state, he suggests. He also questions the sense of starting something new rather than investing in an existing and successful initiative, such as the Covenant of Mayors that has gathered over 700 committed signatories since February (see separate article).

“If you launch such a smart cities project with only 25 cities, then you’ll exclude those that are not selected and don’t get any money, such as the 700 signatories of the Covenant of Mayors,” he explains. The Commission, though, talks of a core select group of smart cities forming the nucleus from which other smart networks would arise. This would aim to spur a new generation of buildings and alternative transport so as to transform the energy system.

The Commission's reasoning for focusing on a select number of cities appears to be that concentrating action at European level would better stimulate the market and lead to economies of scale in the take-up of the concerned technologies. The Commission also flags up the possibility of Europe-wide exchange of best practices and cross-fertilisation between sectors and regions.

Another criticism is the cost. The Commission puts forward the figure of €11billion over the next ten years. "That sounds a lot, but you have to look at the sum in detail. One kilometre of tramway costs €25 million and a kilometre of metro €100 million," explains Magnin. Simple maths whittles down the figure to just €1.1 billion per year, or just ten kilometres of metro per year. "Another question is where is this €11 billion going to come from?" he asks.

One kilometre of tramway costs €25 million

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