POSITION ON ENERGY EFFICIENCY (2013)

NON PAPER

On 25 October 2012, the EU adopted the Directive 2012/27/EU on energy efficiency. This Directive establishes a common framework of measures for the promotion of energy efficiency within the Union in order to ensure the achievement of the Union's 2020 20 % headline target on energy efficiency and to pave the way for further energy efficiency improvements beyond that date. It lays down rules designed to remove barriers in the energy market and overcome market failures that impede efficiency in the supply and use of energy, and provides for the establishment of indicative national energy efficiency targets for 2020.

Following the great interest on energy efficiency demonstrated by the European Commission in its last communication about energy technologies and innovation[i] sent to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the regions, a new approach towards Energy Efficiency is proposed within the implementation plan of the ALCUE NET.

In order to identify the areas into which the energy efficiency might be approached from the point of view of the European Commission, two strategic approaches have been defined.

The first approach should be based on the future integrated roadmap currently under development in the UE.

The second approach will be based on the EU energy efficiency policy, where the full potential of energy efficiency, focusing on end use consumption is prioritized. It is clear that investing in energy efficiency brings savings to consumers and allows industries to be less dependent on energy prices, reduce their costs and increase their competitiveness.

Following the example of the progress obtained in the SET Plan, the Smart Cities and Communities European Innovation Partnership started as the energy efficiency component of the SET Plan and now integrates at the level of cities and communities real scale applications of energy, transport and ICT innovative solutions.

Cities and Communities[ii] are based on buildings, so research and demonstration activities will clearly focus on buildings. Buildings, with nearly 40% of final energy consumption, are a high priority. In this way significant progress would be achieved through the increase of the rate of energy efficient renovations for existing buildings and also making new buildings nearly zero-energy ones. To this purpose research on new building materials, designs for integrating renewables into buildings, and new concepts and business models for energy efficient building renovation, need to be developed and demonstrated. Another important issue in order to increase the energy efficiency in cities is the combination with renewable energy use in

heating and cooling process. Also technologies that enable active consumer participation will allow energy efficiency improvements in networks, making more use of ICT. Finally and related to the transport sector, low emission and electric vehicles are encouraged.

As conclusion research and demonstration activities will focus on buildings, SMEs and industry including energy-related products while uptake measures will address market failures and governance gaps across all sectors.

Them the main energy efficiency focus areas should be:

- Increasing energy efficiency in buildings
- Increasing energy efficiency in combination with renewable energy use in heating and cooling
- Increasing energy efficiency in industry and SMEs
- Increasing energy efficiency of energy-related products
- Innovative financing for energy efficiency
- Citizen Engagement, capacity building, governance and communication for energy efficiency

The work programme should cover the following topics:

A – Increasing energy efficiency in buildings

A1: Innovative solutions for increasing the rate, depth and applicability of building renovation techniques in existing buildings

A2: Addressing the gap in knowledge and skills in the construction sector

A3: Increasing energy performance of existing buildings through process and organisation innovations

B – Increasing energy efficiency in combination with renewable energy use in heating and cooling

B1: Development and demonstration of innovative highly energy efficient heating and cooling solutions

B2: Uptake of effective heating and cooling solutions by removing the existing barriers

C – Increasing energy efficiency in industry and SMEs

C1: Increasing energy efficiency in industry and SMEs through development and demonstration of innovative solutions

C2: Increasing energy efficiency in industry and SMEs through organisational and process innovation

D – Increasing energy efficiency of energy-related products

D1: Development and demonstration of very efficient energy-related products

D2: Driving the market change dynamics towards highly efficient energy-related products.

E: Innovative financing for energy efficiency

E1: Increasing energy efficiency through improving the financeability and risk profile of energy efficiency investments across sectors

E2: Development of credible pipeline of innovative EE investment projects

E3: Development and market roll-out of innovative energy services. (Energy Services

F: Citizen engagement, capacity building, governance and communication for EE

F1: Consumer engagement for energy efficiency

F2: Higher energy efficiency through improved governance.

F3: Capacity building, networking and best practice sharing in sustainable energy

G: Smart Cities and Communities

***G1* Smart Cities and Communities solutions integrating energy, transport, ICT sectors**

Low energy districts: through the integration and management of:

- Supply of energy with predominant exploitation of local resources (waste heat, renewables, storage).
- Cost-effective retrofitting of buildings without significant disruption for tenants (use of sustainable materials).
- Optimisation of mobility demand.
- Cross-cutting ICT solutions for the design and overall management of energy/ transport systems.

Integrated Infrastructures: through the integration of physical infrastructures such as core networks, street scenes, lighting, etc. to create new forms of value through re-use and repurposing. This might also imply exploitation of synergies between requirements for smart grids, broadband infrastructures and in general poly networks.

Sustainable urban mobility: through the integration of energy/ fuelling infrastructure with vehicle fleets powered by alternative energy carriers for public and private transport, including logistics and freight-distribution. Implications on energy management, and in the case of electromobility the impact on the electricity grid, of the deployment of high numbers of vehicles and/or the alternative fuel blends performance should be assessed.

G2 Development of system standards for smart cities and communities solutions

G3 Establishing networks of public procurers in local administrations on smart city solutions

[i] http://ec.europa.eu/energy/technology/strategy/doc/comm_2013_0253_en.pdf

[ii] http://ec.europa.eu/energy/technology/initiatives/doc/2012_4701_smart_cities_en.pdf