Energy transition

Energy transition is perhaps best defined as a shift from a system dominated by finite (chiefly fossil-based) energy towards a system[1] using a majority of renewable energy sources, also maximising the opportunities available from increased energy efficiency and better management of energy demand. As with many challenges, urban areas are the places in which the greatest progress can be made on energy transition. How cities grow and operate has a huge impact on energy demand as they account for 60 to 80% of global energy consumption and around the same share of CO2 emissions.

This is a crucial issue for the EU. A high level of energy efficiency is beneficial for security of supply, sustainability, affordability for households and industry and competitiveness of the EU economy. Indeed, it is one of the key objectives of EU energy and climate policy, as set out in the recent Energy Union Communication, the 2014 European Energy Security Strategy and Energy Efficiency Communication.

For years cities have been pushing ahead with local initiatives and projects on sustainable energy and have been leading from the front on the issue of transition to a more efficient and secure energy outlook. UIA aims to help accelerate this transition. Without being prescriptive in terms of the types of projects we wish to see, there are however some key elements that urban authorities proposing projects should consider. For instance:

- Increasing the production of renewable energy at local level and improving its distribution;
- Energy efficient retrofitting of buildings – buildings consume some 40% of final energy in the EU and this is the largest and most cost-effective area for improvement;

[1] Energy Cities, 30 Energy Cities' proposals for the energy transition of cities and towns, 2014

- Energy efficiency measures with the aim of minimising the risk of fuel poverty and its consequences (e.g. poor health, child poverty, educational under-achievement etc.);
- Increasing the adoption of low carbon technologies;
- Supporting energy efficiency and smart energy management in public infrastructure and the housing sector;
- Moderating the demand for heating and cooling; and deploying innovative, nature-based solutions to heat/cool buildings and neighbourhoods
- Addressing non-technological barriers i.e. promoting behavioural change towards more sustainable choices and reducing demand for energy.

It is clear from the type of activities described above that 'energy transition' encompasses technological, societal, cultural, economic and environmental aspects and there is a clear implication that this means a more active role for citizens and communities. Thus, while urban authorities should feel free to experiment with bold ideas, they should seek to involve and inform their citizens, not least to ensure early buy-in ahead of any new technological solutions aiming to improve the outlook.