CEDEC press release

Powering a climate-neutral economy: An EU Strategy for Energy System Integration

Brussels, 8 July 2020

CEDEC highly welcomes the European Commission´s Strategy for Energy System Integration published today: finally a broader picture behind the pieces of the energy puzzle. We believe that a framework for the enhanced and systematic integration of energy systems should go beyond sector coupling. Referring to an optimised energy system which involves different energy carriers and their respective infrastructures, is indeed the preferred *pathway to a cost-effective and affordable decarbonisation of the European society*. We believe that such an integrated energy system will be specifically able to maximise the integration of local renewable energy sources, close to the customers and involving local communities in the energy transition.

Following the logic of **circular economy** and putting **energy efficiency** at the core of the energy transition, the system integration strategy would allow local energy companies to propose cost-efficient **local integrated solutions** – mostly based on existing 'no rocket science' technologies - optimally adapted to the site characteristics and customers usage patterns. This same approach allows also the re-use and retrofit of existing grid infrastructures when effective and resource efficient. In many European urban areas, combined heat and power plants (CHP) and district heating and cooling systems (DHC) using waste heat and local resources are already the cornerstones of local energy system integration models. However, it is important, to make the most of the untapped potential, to give greater credit to these systems for their positive contribution and to design the right legislative framework and regulatory tools.

Decarbonised and sustainable electricity can indeed drive increased decarbonisation in many sectors as several technologies are available at competitive prices allowing cost-efficient conversion of renewable energy into electricity. The use of electricity in heating and transport has a huge potential that needs to be developed further. However, this enhanced electrification will be confronted with crucial challenges in terms of electricity grid development and management and storage, and therefore will need to consider the **use of existing gas and heat infrastructures**. It is at the distribution level that energy system integration will become reality, as the connection between energy, heat and mobility demand is situated there - through RES, highly efficient cogeneration, heat pumps, EV charging stations, power-to-X and gas-to-X systems.

Where energy intensive applications are difficult to electrify and where electrification costs for specific end uses are relatively high, **renewable and decarbonised gases** should step in. They can represent a resource and cost-efficient option to decarbonise many sectors of the economy: molecules are more

easily transportable and storable, can offer choice and flexibility in the use of diverse heating and cooling technologies, and enable highly efficient cogeneration for industrial processes and buildings alike. Some renewable gases (biomethane and synthetic methane) require no adaptation to gas distribution infrastructure and end-users´ applications, whereas other renewable and decarbonized gases (like hydrogen) require retrofits and new investments that need a clear roadmap for their development.

To reach 2050 sustainability goals cost-effectively, the European Union should incentivize the wide-spread use of existing integrated approaches, translate new concepts into practice without hesitation and remove the regulatory and technical barriers where needed.

The energy transition has a strong local dimension that the European policy-makers should take into account and support when designing the integrated energy system of the future.

CEDEC Background information

CEDEC represents the interests of more than 1500 local and regional energy companies, serving 85 million electricity and gas customers & connections, and with a total turnover of €120 billion.

These predominantly small and medium-sized local and regional energy companies have developed activities as electricity & heat generators, electricity, gas & heat distribution system operators (including metering & data management), and energy (services) suppliers. The wide range of services provided by local utility companies is reliable, sustainable and close to the customer.