



**SUSTAINABLE ENERGY
WEEK 15-19 JUNE 2015**
Take an active part in shaping the Energy Union!



‘Heat and steam from waste: Linking the Energy Union and the circular economy’ was the title of a workshop organised on 18th June during the EU Sustainable Energy Week 2015

With the **Energy Union** proposal, the EU is about to set an ambitious roadmap to decarbonise its energy sources whilst securing their supply while the **circular economy** aims at fostering good material recovery through recycling. A holistic approach yielding maximum benefits will result if we link energy policy and the circular economy, to their mutual benefit. Waste-to-Energy (WtE) is this link. It handles the non-recyclable waste that would otherwise be landfilled and it helps reducing Europe’s dependence on imported fossil fuels, e.g. by providing heat for district heating (DH) networks and industries.

“Europe is highly dependent on energy imports which results in energy security issues and has important economic implications. At the same time there is still a lot of landfilling in Europe which means that waste is not used the way it could be”, said Bernd Kuepker from the European Commission’s DG Energy. His overview of the issue was followed by practical examples and experiences from different European countries.

Peter Vandendriessche, Finance Director Indaver NV, Belgium and Phillip Piddington, COO Energy, Viridor, UK presented two cases where energy from WtE plants is used in industrial processes.

In Flanders, Belgium, where 70% of Municipal Waste is recycled or composted and only less than 1% is landfilled, the remaining residual waste is used to produce heat and electricity in WtE plants. Moreover, in the harbour of Antwerp a project is taking shape to build one of the largest industrial heating networks in Europe, distributing steam from WtE installations to the neighbouring chemical industry companies. “Although a project like this requires unique cooperation between different companies and considerable investment, it brings added value by increasing EU self-sufficiency (less imports of fossil fuels) and important environmental benefits, i.e. avoiding 100,000 tonnes of CO₂ emissions”, said Peter Vandendriessche.

Phillip Piddington presented the experience in Manchester, UK and highlighted that “Energy from WtE could be and should be part of the Energy Union.” He stressed the need to maximise the use of low-quality waste as “WtE facilities, when they are designed efficiently and effectively, are an important part of the circular economy.”

While the first two speakers concentrated on WtE delivering steam to industry Marco Vivenza, Process Engineer at HERAmbiente, Italy and Jonas Cognell, Senior Program Manager and Assisting Coordinator, Celsius, Smart Cities, Sweden presented WtE’s contribution to the heating of homes.

In Ferrara, a city in the North of Italy, 55.3% of waste is collected separately and the WtE plant produces heat from the remaining waste for the local DH network. The development of DH network in Ferrara is a special case as it is a historical city where numerous buildings date from 14-15th century and is part of UNESCO World Heritage. Furthermore, the energy that Ferrara WtE plant produced in 2009-2014 has allowed replacing the equivalent of 102,344 tonnes of fossil fuels and has saved 187,976 tonnes of CO₂ emissions.

On the other hand, in Sweden every city with a population of over 10 thousand inhabitants has a DH network, and Renova WtE plant in Gothenburg covers 30% of the city’s energy need. “The emissions from the heat production have fallen significantly in the last few decades in the city of Gothenburg due to the growth of the DH network and the decline in the number of local boilers that ran on fossil fuels.”



– explained Jonas Cognell while adding that “Waste heat is one of the reasons why [they] can propose good heat prices for their customers”.

The presentations were followed by a lively debate, tackling the function of WtE plants as a pollutant sink for contaminated waste, which is not suitable for quality recycling, and diverting waste from landfills. It was concluded that the Energy Union and the circular economy are complementary policies to reduce Europe’s dependence on imports of both raw materials and fossil fuels for energy supply.

The workshop was co-organised by:

CEWEP (The Confederation of European Waste-to-Energy Plants) <http://www.cewep.eu/>

ESWET (The European Suppliers of Waste to Energy Technology) <http://www.eswet.eu/>

MWE (Municipal Waste Europe) <http://www.municipalwasteurope.eu/>

Links to presentations:

Introduction slides by Guillaume Perron-Piché (ESWET): http://cewep.eu/news/m_1432

Bernd Kuepker (DG Energy, European Commission): http://cewep.eu/news/m_1429

Peter Vandendriessche (Indaver NV, Belgium): http://cewep.eu/news/m_1430

Phillip Piddington (Viridor, UK): http://cewep.eu/news/m_1433

Marco Vivenza (HERAmbiente, Italy): http://cewep.eu/news/m_1431

Jonas Cognell (Celsius, Smart Cities, Sweden): http://cewep.eu/news/m_1434