

ESWET answer to the Consultation on risk preparedness in the area of security of electricity supply

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ESWET, the European Suppliers of Waste to Energy Technology, would like to welcome the opportunity to comment on the security of electricity supply, a core topic for Europe's secure, affordable and sustainable energy future.

About Waste-to-Energy

Waste-to-Energy plants recover materials and energy from non-recyclable waste that would otherwise be landfilled, thus losing the energy. Key to minimise landfilling, Waste-to-Energy helps protecting the climate by avoiding methane emissions from landfills.

Acting in complement to material recycling activities, Waste-to-Energy plants are net energy producers and convert residual waste into electricity and/or heat. A significant part of this waste is biomass, meaning that about 50% of the energy produced is recognised as renewable. Energy produced from waste helps reducing the reliance on other sources of energy, generally fossil fuels, a further climate protection benefit.

Residual waste is a locally-generated resource that can be easily dispatched within the EU when bound for energy efficient Waste-to-Energy plants. When heat is fed into District Heating networks and/or to Industrial clients, energy efficiency is optimised. However, not all Waste-to-Energy plants can operate as combined heat and power (CHP), usually because political reasons have forced locating the plant far from heat consumers. In these cases, the heat recovered from waste can still be turned into electricity, which is then fed to the grid.

Contribution to the Security of Electricity Supply

As the landscape of electricity generation, transmission and consumption changes, it is important to underline the advantages that Waste-to-Energy plants can bring to a grid.

Electricity from residual waste is produced from a secure fuel, predominantly local residual Municipal Waste or similar, e.g. Commercial or non-hazardous Industrial waste. The small amount of waste that is also transferred for energy recovery comes from EU Member States, therefore exposure to foreign risks is virtually inexistent.

To accomplish their waste treatment mission, Waste-to-Energy plants are running around the clock and provide a steady supply of electricity. Still, plants are very dispatchable, because they can technically scale down their electricity output if necessary. In this case, though, a reward for flexibility and a compensation for the incurred losses should be foreseen.

The electrical output has a high availability (+8,000 hours per year), a useful asset in fluctuating grids when electrical demand recovers quickly. As a significant part of electricity from waste is renewable, it also makes sense to rank it among the first ones to be dispatched to the grid. Furthermore, this waste biomass needs treatment, contrary to the clean biomass which is conditioned specifically for combustion (e.g. wood pellets) and can be stockpiled.

Also, a more interconnected European grid would avoid curtailing waste, a constant source of renewable energy, in the instances when an area finds itself momentarily oversupplied with fluctuating electricity sources. This low-carbon electricity could instead be re-routed to another region where it would be welcome.

Finally, residual waste is attractive since it is not suitable for recycling and would otherwise be landfilled. Also, it is immune to fluctuations or disruptions in worldwide markets. Prices for electricity from waste are stable and the fuel supply can be anticipated.

Road ahead

The Roadmap for the Energy Union recognises that Waste-to-Energy plants stand ready to contribute to the decarbonisation and security of supply goals set out in this flagship initiative. ESWET wishes to contribute to the detailed Communication that will provide even further information when published by the Commission in 2016.

As a specific input to the present Consultation's question 2c, on the supply side measures, ESWET believes that Waste-to-Energy plants should be included in the National Risk Preparedness plans. If a European plan or assessment is to be done on this topic, Waste-to-Energy stands ready to contribute to security of electricity supply.