



## **CEWEP statement on so called “lock-in” effect and Waste-to-Energy capacity planning in the Circular Economy**

**The sector will not invest in Waste-to-Energy (WtE) if there is no need!**

**The need for WtE depends on the amount of waste that society produces and that we cannot avoid nor recycle and for which a safe recovery option is needed.**

**Future WtE investment will only happen if there is a need**

When discussing WtE for residual waste treatment, the notion of “lock-in” effect often comes up, suggesting that once a WtE plant is built, the surrounding regions will be inclined to recycle less and instead bring more waste to the WtE plant. CEWEP firmly believes that investment in new or expanded WtE capacity should only take place in well justified cases, in full respect of the waste hierarchy. The efforts for waste prevention, source separation and recycling as well as landfill diversion as set in the EU waste targets must be considered appropriately in the national/regional waste management plans, which are the basis for permits for WtE. This way no so-called “lock-in effect” is created by WtE. It rather goes hand in hand with quality recycling paving the way for a transition to a circular economy.

It is important to note that within the circular economy WtE capacity needs can only be judged by taking the whole feedstock into account. This is residual municipal waste as well as commercial and industrial waste. All these unrecyclable waste streams need secure and reliable treatment to avoid pollution spreading.

There is currently no overcapacity of WtE on the European level. Nevertheless, on the local level there is sometimes more WtE capacity available than domestically needed for the residual waste. This is due to historical decisions based on forecasts for increased waste generation and the fact that WtE is an important tool for sustainable local energy production, providing affordable heat/steam and power in the local heat and regional electricity markets.

The EU waste law that clearly sets ambitious targets for source separation and recycling has become a game-changer for waste treatment capacity planning. While it was difficult to have a good overview in the past, better forecasts can now be made for the capacities needed to treat the residual waste from households, businesses and all other type of organisations<sup>1</sup>. Today investors have the right tools to make safe and sustainable investments, as the EU legislation provides them with solid information and predictability of what is and will be available as feedstock for their investment.

Besides EU waste laws there are a few more points that must be considered when talking about WtE capacity planning. First, as mentioned above, WtE plants treat not only municipal but also commercial and industrial waste. Furthermore, it must be kept in mind that more (and quality) recycling leads to more rejects from recycling and sorting facilities which need reliable and affordable treatment. For these residual wastes which would be otherwise landfilled, WtE is the more sustainable solution. Additionally, for contingency situations, such as the COVID-19 outbreak, society needs available - system relevant - treatment capacities such as WtE plants.

Nevertheless, with all this in mind, we see that today public and private investors (who are often also owners of recycling facilities, biogas production from waste and other activities of an integrated waste management system) are very carefully assessing the market before making any investment decisions. Therefore, the sector considers it unlikely that more WtE capacity than domestically needed will be built in the future.

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<sup>1</sup> See peer-reviewed interactive calculation tool, <https://www.cewep.eu/circular-economy-calculator/>

## **Investments from the past should be used efficiently to divert waste from landfills**

These past decisions were taken for environmental reasons, i.e. to divert waste from landfills and to enable high-quality recycling while WtE plants took care of the rejects from recycling and the residual waste. To this day WtE plays an important role in reduction of landfilling and related greenhouse gas emissions and will continue to do so in the future as Europe still landfills 175 million tonnes of waste (not counting the mineral waste), emitting more than 140 million tonnes of CO<sub>2eq</sub> emissions.

As an intermediary solution, the currently available capacity in some Member States that is not needed for domestic waste should be used to help others within the European Union. There are still many EU Member States that heavily rely on landfilling and this would be an opportunity to divert their waste from landfills, higher up the hierarchy<sup>2</sup> towards quality recycling and – for the residual waste – towards energy recovery. The EU's internal market and the willingness to achieve a high level of environmental protection throughout the Union are essential values. If there is no sufficient regional capacity to treat the residual waste, it is from an environmental and climate point of view better to ship it to WtE plants in other European countries rather than landfilling. Landfill disposal is the last resort.

### **The WtE sector, represented within CEWEP, is committed to:**

1. contributing to the Circular Economy and climate mitigation by focussing on an efficient use of the recovered energy combined with the highest possible recycling rate of the metals and minerals present in the residues (technology to extract even more materials from bottom ash exists, but regulation is needed to increase its usage);
2. assessing carefully new investments in order not to exceed the capacity needs for residual waste within the European Union (for more information, see CEWEP's peer-reviewed calculation of [residual waste treatment needs in 2035](#));
3. investigating in sector coupling such as hydrogen production, e.g. to enable low carbon mobility;
4. looking into carbon capture where feasible and appropriate. For this a market for CO<sub>2</sub> use and sequestration is needed and we are eager to discuss with the decision-makers how this can be realised.

### **The WtE sector offers an essential service to society**

As Europe seeks to address its waste challenges, WtE provides a well-regulated and essential waste treatment where recycling is not appropriate and offers a source of secondary raw materials and energy for the circular economy.

- WtE is a reliable partner to fulfil a hygienic task (safe treatment of contaminated waste) and taking care of the residual waste for which quality recycling is not feasible;
- WtE is part of the Circular Economy solution. WtE complements recycling by treating the residues from recycling facilities and the non-recyclables from separate collection.
- WtE recovers energy as well as metals and minerals from the bottom ash;
- WtE contributes to climate mitigation by:
  - diverting waste from landfills;
  - substituting energy produced from fossil fuels (playing an important role in District Heating, delivery of process steam to industry and electricity production) and focussing on higher energy efficiency.

CEWEP's [Waste-to-Energy Sustainability Roadmap Towards 2035](#) gives a more detailed overview of WtE's place in the Circular Economy.

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<sup>2</sup> See also the Commission's Communication on Waste-to-Energy (WtE) of 2017, p. 7