

September 28, 2022

To European Commission

Dear Mr. Frans Timmermans, Ms. Mairead McGuinness, Mr. Virginijus Sinkevičius,  
Mr. Aurel Ciobanu-Dordea and Mr. Martin Spolc

Japan Environmental Sanitation Center (JESC)

**Comments on Waste-to-energy (WtE) in EU Taxonomy:  
“Carbon Neutrality, Circular Economy, and Biodiversity in Waste Management”**

The Japan Environmental Sanitation Center (JESC) has been discussing waste management and recycling with academics, practitioners, businesspeople, and experts in the sector since last year. In March 2022, JESC launched the "Study on Waste Management toward Decarbonization and the EU Taxonomy."

The study group discussed the future of waste management in Japan with a focus on WtE in relation to the EU Taxonomy used to classify sustainable economic activities.

The group consisted of eight academics and persons from local governments and private businesses. An online audience of about 200 persons viewed the discussions, along with lectures on related topics presented by participating experts from the Ministry of the Environment.

Please see the comments of our study group below. We hope to continue our discussions with your federation and our joint work toward the development of WtE.

Our Comments :

**【Conclusion】**

- We fully agree with Dr. Ella Stengler's opinion on WtE (see the article indicated below).  
[ “Waste-to-Energy: the missing piece of the taxonomy puzzle,” The Energy Industry Times— January 2022 ]
- WtE will contribute to the EU Taxonomy regarding pollution prevention management. It can also contribute to other environmental objectives. WtE can play a major role as a mechanism for climate change mitigation, climate change adaptation (promotion of decarbonization), the creation of a circular

economy, the maintenance and improvement of sanitation levels, and the conservation of biodiversity.

- We expect to reach reasonable judgments on the conditions for maintaining a green economy (sustainable economic activity) with respect to the position of WtE in the extended taxonomy.

## 【Evaluation of WtE】

### 1) Carbon Neutrality: Energy Supply and Climate Change Solutions

- Japan intends to pursue the following decarbonization strategies mainly in the waste sector in order to achieve the 2050 CN Declaration:
  - (1) Promote the 3Rs and increase the size of WtE facilities for high-efficiency heat recovery from non-recyclable combustible waste
  - (2) Introduce CCU/CCUS
  - (3) Promote methane fermentation of kitchen garbage
  - (4) Promote the recycling of plastic resources
- Energy produced from biogenic waste, which accounts for more than half of municipal solid waste (MSW), is considered a renewable energy source.
- WtE is also a reliable and stable baseload energy source, unlike other renewable energy sources that fluctuate widely, such as solar power.
- WtE contributes to climate change mitigation by replacing fossil fuels.

### 2) Circular Economy: Resource Circulation and Recycled Residues

- Separate collection and recycling (plastic containers and packaging, bottles / cans / PET bottles, paper, etc.) have been steadily progressing in Japan.
- The Act on Promotion of Resource Circulation for Plastics came into effect in April 2022. Efforts to recycle not only containers and packaging plastics, but also product plastics, have begun.
- Even if recycling develops in accordance with the waste hierarchy, residues and non-recyclable materials will always be generated after treatment. These materials cannot be ignored. We hope that guidelines for the treatment of recycling residues will be established in the EU.
- It is important to ensure that non-recyclable wastes are treated in WtE, especially during the phased transition phase (low-recycling-rate phase).

### 3) Biodiversity and Detoxification: Reduction of the final disposal volume

- WtE has been a solution for the lack of suitable land for final disposal sites in Japan. WtE allows a significant reduction in volume compared to direct landfill, and the reduction in direct landfill reduces methane emissions. The promotion of WtE has minimized the negative impacts on biodiversity.

- Japan has followed a long tradition of developing incineration as a means of combating infectious diseases since the enactment of the Waste Cleaning Law in 1900. Japan's achievements in incineration have been world-class. Today, WtE remains extremely effective in the sanitary treatment of infectious wastes.
- The current WtE technologies contribute to the prevention of pollution by properly treating exhaust gasses and mineralizing and stabilizing organic wastes.
- Japan's long-standing efforts and CN Declaration for 2050 do not significantly harm the six environmental objectives of the taxonomy (DNSH).

#### **4) Disaster Garbage Disposal: Effectiveness of incineration process**

- Climate change is causing frequent disasters. Floods, especially large-scale floods, claim lives in many parts of the world and generate large amounts of unsanitary disaster waste.
- The most appropriate solution to this problem is to incinerate combustible disaster waste as soon as possible. WtE is an effective climate change adaptation measure.

#### **5) Proper disposal of waste in developing countries**

- The waste management systems suitable for developing countries differ according to economic conditions, waste discharge conditions, and the markets for recycled materials. In examining and selecting the suitable methods among the many options, WtE must be recognized as a powerful option.

## Japan Environmental Sanitation Center (JESC)

About us:

A general incorporation organization having a deep relationship with Ministry of the Environment, Japan.

JESC is an organization of technical specialists working together to pioneer environmental management in Japan and actively resolve living environmental issues on local and global scales.

JESC comprehensively supports proper waste management geared towards the establishment of a sound-material-cycle society. Our activities range from the formulation of waste management plans to the construction of treatment facilities through approaches such as the following:

- Detailed functional inspection of municipal solid waste treatment facilities
- Formulation of waste management plans and support for PFI programs—
- Statistical information surveys on industrial waste
- Commissioned research and investigations focused on waste treatment, resource recovery, use, etc.

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The Committee of Waste Management toward Carbon Neutral and EU Taxonomy

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