PRIORITIES FOR UK POLICYMAKERS

RDF INDUSTRY GROUP

Prepared By

Prepared by Eunomia Research & Consulting, as Secretariat to the RDF Industry Group.

The RDF Industry Group represents 38 organisations across the European waste-derived fuel (WDF) supply chain, including WDF production companies who produce fuel from residual waste, energy from waste (EfW) facility operators, and those who ship, transport, and test WDF.

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The Waste Derived Fuel supply chain plays an important role in helping to solve three major challenges: reducing levels of methane and CO_2 emissions to limit the rate of climate change; ensuring resources are used in a circular (rather than a linear) way so their full value is realised; and reducing fossil energy consumption and supporting energy security.

WDF Factsheet

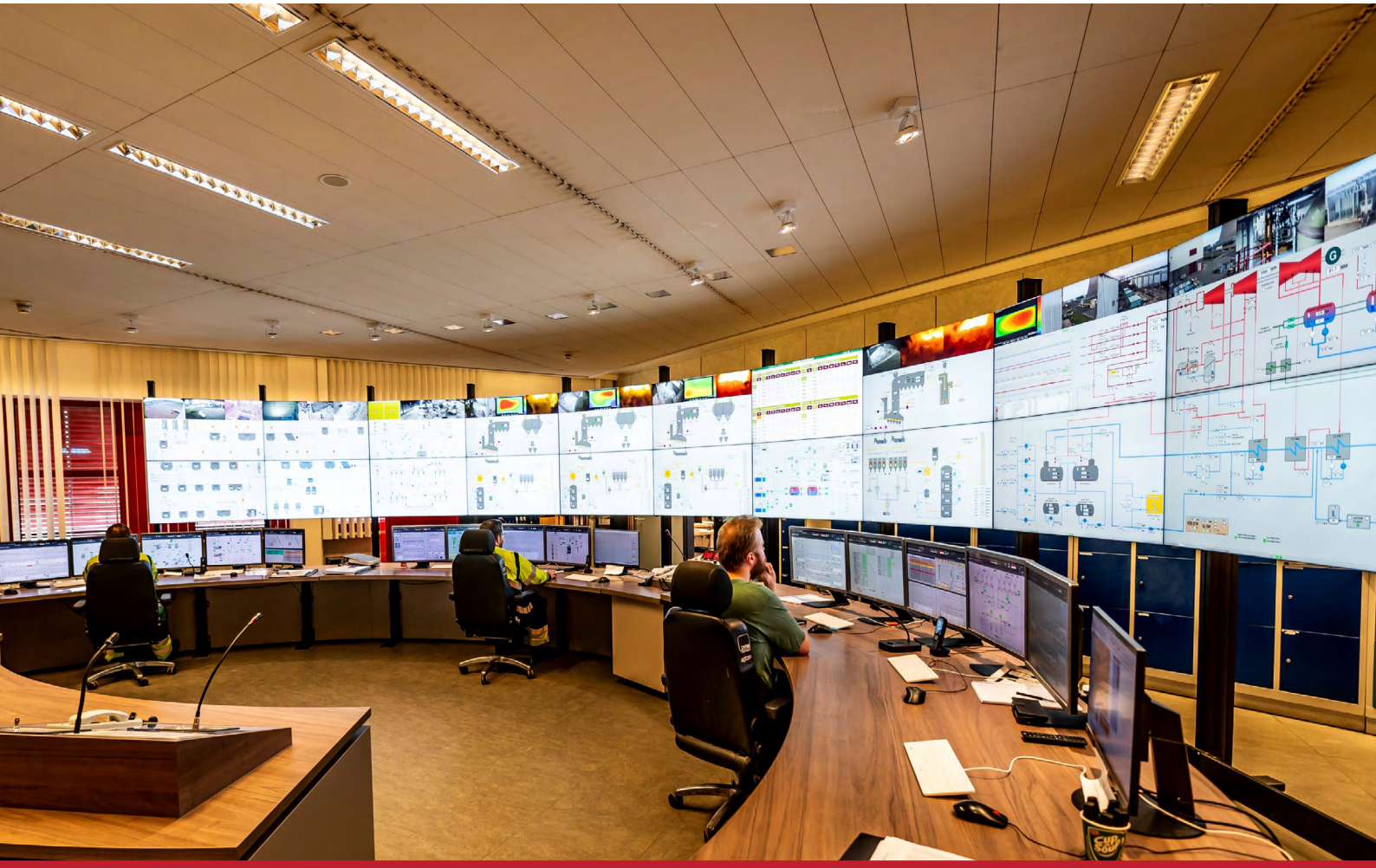
What Are Waste Derived Fuels?

Waste Derived Fuel is a generic term used to describe waste that is non-recyclable and has undergone some processing that allows it to be burnt as a fuel to produce energy.

To produce Waste Derived Fuel, non-recyclable waste is collected from households, businesses and industry, and is then transported to a sorting facility. Here, the waste is separated, shredded and dried before quality control measures ensure standards (e.g. set by regulators) are met.

Waste Derived Fuels are typically used in Energy from Waste plants. These facilities go beyond simple incineration and harness the energy expelled during the burning process, to be used for the generation of efficient district heating and/or electricity. Waste Derived Fuels can also be used in cement kilns and industrial boilers, replacing fossil fuels.

Waste Derived Fuels help to solve three major challenges: reducing emissions, moving towards a circular economy, and improving energy security.



Why Use Waste Derived Fuels?

- There is a strong environmental case for Energy from Waste:
  - **Landfill is the most environmentally damaging method of waste management** due to its uncontrolled emissions of greenhouse gases, including methane.
  - **Energy from Waste is preferred to landfill under the waste hierarchy and avoids harmful methane production.**
  - **Energy from Waste facilities produce energy** in the form of electricity and, for many, heat. This can displace fossil sources of energy such as coal or gas.
  - **Energy from Waste can increase recycling**, by pre-treatment of waste, recovery of material from incinerator bottom ash, and using the ash in construction. All this reduces demand for virgin materials.
  - In the future, **Energy from Waste could support negative carbon emissions**, using facilities equipped with carbon capture technologies.

- **Energy from Waste improves energy security:**
  - The UK regularly trades energy, whether as fuel or electricity, with the rest of Europe.
  - To improve energy security, all domestic energy capacity available in Europe should be used in favour of fossil fuels sourced from long distances away.
  - Increased use of Energy from Waste therefore presents an opportunity to increase Europe's energy security, when Waste Derived Fuel produced in Europe is incinerated in Europe.

- **Energy from Waste provides socioeconomic benefits:**
  - Waste Derived Fuel production generates twenty times more jobs than landfill.
  - A healthy Waste Derived Fuel export-import market encourages competition, maintains a specialist supply chain, and can have a low net social cost.

Notable Points

Methane is 86 times more potent as a greenhouse gas than CO_2 over a 20-year period and is responsible for 30% of global warming. Methane accounts for 81% of the UK waste sector's emissions, and 13% of our overall greenhouse gas emissions.

Why Trade Waste Derived Fuels?

- The UK regularly trades energy, whether as fuel or electricity, with the rest of Europe. Waste Derived Fuels are no different in this regard.

- Many countries do not have sufficient non-landfill residual waste treatment capacity, and as such transport waste to other nations with excess capacity for Energy from Waste.

- **A robust and healthy export-import market for Waste Derived Fuel facilitates is vital to seizing all the opportunities Energy from Waste presents, both in terms of cost and carbon emissions.**

- Building the right amount of Energy from Waste capacity in a country is a challenging balance to get right, so **trade in Waste Derived Fuel provides access to flexible capacity, allowing countries to avoid building stranded assets.**

Notable Points

Studies have shown that exporting waste for Energy from Waste and keeping it out of landfill, even over distances up to 9,000 km, has a net greenhouse gas benefit. Export of Waste Derived Fuel can also present the lowest overall cost waste management method, once considerations like landfill taxation and energy revenues are accounted for.*

*www.rdfindustrygroup.org.uk/resources/report-co2-reduction-potential-in-european-waste-management

Policy Recommendations

Current and future waste and energy-related policies must be designed to support the Waste Derived Fuel industry to maximise its potential towards the three global challenges of emissions reduction, energy security and moving to a circular economy. The RDF Industry Group recommends that UK policymakers adopt the following approaches.

Act on Landfill Policy

- **Crack down on criminals avoiding landfill tax** by misclassifying waste as inert, by increased enforcement action.

- **All waste that can be recycled or sent to Energy from Waste must not be landfilled.**
  - » Landfill exemptions for specific waste streams should be removed where possible.
  - » There should be a clear landfill ban on combustible waste.
  - » The results of the 2023 consultation on eliminating biodegradable waste to landfill should be published at the earliest opportunity. Government should also consider extending the proposed ban to non-municipal biodegradable waste as well.

Notable Points

Estimates suggest a total of 13.6 million tonnes (Mt) CO_2e were emitted as methane from operational and closed landfill sites in 2021 alone. This methane should be captured and used for energy, or flared, rather than released.

- **Organic waste collections should be mandated**, to divert organic waste away from the residual waste stream. The Environment Act 2021 requires this by 31st March 2026, and the date should not be allowed to slip.

- **Sufficient landfill taxes and/or restrictions should be in place – and enforced – to reduce waste sent to landfill.**
  - » These should be higher than the carbon tax for Energy from Waste, to move waste up the waste hierarchy. Landfill taxes should increase regularly, and be linked to carbon taxes to ensure landfill and Energy from Waste prices rise together. Capture of methane from landfills should be mandatory.

- **Capture of methane from landfills should be mandatory.**

Ensure a Thriving Export Market

- Five million tonnes of new Energy from Waste capacity are currently being developed in the UK to reduce landfill use, but **some people are worried that too much incinerator capacity in the future could compete with recycling**, or with other applications such as sustainable aviation fuel.
  - » Likewise, these new Energy from Waste facilities could become stranded assets as we produce more recycling and less residual waste.

- Alongside a flourishing domestic Energy from Waste market, **the UK already exports Waste Derived Fuel to elsewhere in Europe**, where there are similarly high environmental and social standards as the UK.
  - » **Export of Waste Derived Fuel to Europe can result in lower emissions** than in the UK, thanks to higher efficiency in European Energy from Waste plants, particularly through the use of district heating, and especially when compared to landfilling.

- **Waste Derived Fuel exports must not be disincentivised or banned.**
  - » This allows the UK time to transition from landfill to a recycling-led waste system, without building too much of its own Energy from Waste capacity that could be rendered redundant as recycling rates increase.
  - » It also ensures that residual waste is treated in a less carbon intensive way.

Incorporate Energy from Waste in Emissions Trading

- **The inclusion of Energy from Waste in UK Emissions Trading is a pivotal step towards achieving the nation's climate targets** by ensuring a more rigorous approach to emissions reduction and incentivising investment in district heating.

- **Waste exports should continue to be permitted under Emissions Trading to ensure resources across Europe are pooled efficiently.**
  - Shipment permissions should only be granted to countries with equivalent carbon taxation to maintain a level playing field, and a Carbon Border Adjustment Mechanism for Waste Derived Fuel and Energy from Waste should be implemented.

- **UK Emissions Trading should align with broader resource efficiency policies**
  - The existing landfill taxes in the UK could be raised in line with the additional cost burden of the Emissions Trading, to maintain a price differential with Energy from Waste
  - Extended Producer Responsibility should complement Emissions Trading, holding producers accountable for waste management costs and incentivising better product design.

- **To ensure a level playing field, UK Emissions Trading should:**
  - Ensure the UK's incentives for district heating and other measures are in-sync with the EU.
  - Handle all waste types destined for incineration with energy recovery in the same manner, regardless of origin, with careful regulation.
  - Include all energy recovery activities, incineration, chemical recycling and other facilities producing fuel from waste.
  - Be informed by a thorough lifecycle assessment to evaluate the benefits and drawbacks of including smaller plants.

- Take a pragmatic approach to Monitoring, Reporting and Verification (MRV) requirements.
  - With multiple possible approaches, **operators should have a robust range of options to choose from to measure their carbon emissions** based on operational and financial feasibility.

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