

Impacts of the Proposed Dutch Waste Import Tax

August 2019

The Dutch Government has announced plans to tax the import of foreign waste by €32 per tonne from 1st January 2020. The RDF Industry Group calls on the Dutch Government to re-think these proposals, as the import tax is likely to increase carbon emissions, reduce recycling and damage the Dutch economy.

RDF (refuse derived fuel) is a generic term used to describe waste from municipal or commercial sources that is residual (i.e. non-recyclable mixed waste) that has undergone some processing that allows it to be burnt as a fuel to produce energy in an energy-from-waste incinerator. The Netherlands has a high treatment capacity for waste incineration, importing 1.7 million tonnes of RDF from other countries in 2017.¹ In line with European Commission policy, the Netherlands has become a **key off-taker of waste from other Member States, playing a pivotal role in the integrated waste market across Northern Europe.**² This also helps to ensure that Member States are supported in achieving the Landfill Directive targets given to Member States for 2035. However, the Dutch government has revealed plans to impose a tax on waste imports from 1st January 2020 in order for it to meet its emission reduction commitments. Approximately 25% of the waste incinerated in the Netherlands comes from abroad.³

The RDF Industry Group has members from across the RDF supply chain, including major waste exporters from both the United Kingdom (UK) and the Republic of Ireland (ROI), and waste off-takers and operators from across Europe (see appendix 1). The Group is **calling on the Dutch Government to remove the proposal to tax imported waste.** The tax will not – as it appears the Dutch Government believe – improve environmental performance. Instead it will condemn most of the imported waste to landfill – from which it is currently being diverted.

Instead of helping to achieve a reduction in CO₂e emissions, the RDF Industry Group asserts that this proposal will lead to **increased emissions of harmful greenhouse gases overall** due to the diversion of waste back to landfill. Not only will this have **negative consequences for the environment**, but there may also be a **significant financial impact on the sector** – whilst raising **minimal revenue** for the Dutch government. The export of

¹ Source: Eurostat.

² *Communication From The Commission To The European Parliament, The Council, The European Economic And Social Committee And The Committee Of The Regions: The role of waste-to-energy in the circular economy.* European Commission, 26/01/2017 COM(2017) 34 final

³ *Implementation of the Urgenda judgment, letter from Eric Wiebes Minister of Economic Affairs and Climate to The Chairman of the House of Representatives of the States General.* 28 June 2019.

RDF from the UK and ROI to the Netherlands saved almost **370,000 tonnes** of CO₂e in 2018.⁴ This is equivalent to taking almost **370,000 cars** off the road.⁵

Why is the Dutch Government Proposing an Import Tax?

Under the terms of the Paris Agreement, the Netherlands has agreed to achieving a 49% reduction in CO₂ emissions by 2030 compared to 1999.⁶ In 2015, Urgenda, the Dutch national sustainability and innovation organisation, won a court case against the government of the Netherlands, forcing it to take more measures on climate change. One of the stipulations was that greenhouse gas emissions must be cut by at least 25% by the end of 2020, hence the short period of time before the proposed import tax may be implemented.⁷

The Import Tax Will Increase Greenhouse Gas Emissions

The RDF Industry Group supports efforts to reduce greenhouse gas emissions overall, there is a significant **lack of evidence** from the Dutch Government regarding how the proposed tax on waste imports will help to achieve this goal. Not only does the RDF Industry Group believe this will **compromise progress on achieving reductions in greenhouse gas emissions**, the proposals could have **wider negative consequences**.

The export of RDF from the UK and ROI has increased rapidly since it largely began in 2010. This had led to almost a decade of wider environmental benefits and economic benefits for the Netherlands. These supply chains are now well-established and the proposed tax risks the future realisation of these benefits.

By placing a tax on waste imports, the Dutch Government will make exporting RDF from the UK and ROI **less economically viable**. As the UK does not have enough capacity to treat its own residual waste,⁸ it is highly likely that the majority of the 1.4 million tonnes of its RDF which is currently treated in the Netherlands will have to be **diverted back to landfill**.⁹

⁴ Based on 1,323,468 tonnes of RDF exported from the UK and 88,600 tonnes exported from ROI to the Netherlands in 2018, and a carbon saving of 261 kgCO₂e per tonne of waste for waste treated in combined heat and power facilities in the Netherlands as compared to landfill in the UK and ROI. See appendix 2 for full assumptions used in the carbon modelling.

⁵ Based on 0.997 tonnes of CO₂e per car per annum, assuming 5,079 miles per annum from *Department for Transport, 2017, National Travel Survey: England 2016* and 122g of CO₂ emissions per km for newly registered cars in 2015 from *Department for Transport, 2015, average CO₂ emissions of newly registered cars, Great Britain*.

⁶ *Implementation of the Urgenda judgment, letter from Eric Wiebes Minister of Economic Affairs and Climate to The Chairman of the House of Representatives of the States General*. 28 June 2019.

⁷ *Implementation of the Urgenda judgment, letter from Eric Wiebes Minister of Economic Affairs and Climate to The Chairman of the House of Representatives of the States General*. 28 June 2019.

⁸ *Residual Waste Infrastructure Review Issue 12*. Eunomia Research & Consulting, July 2017

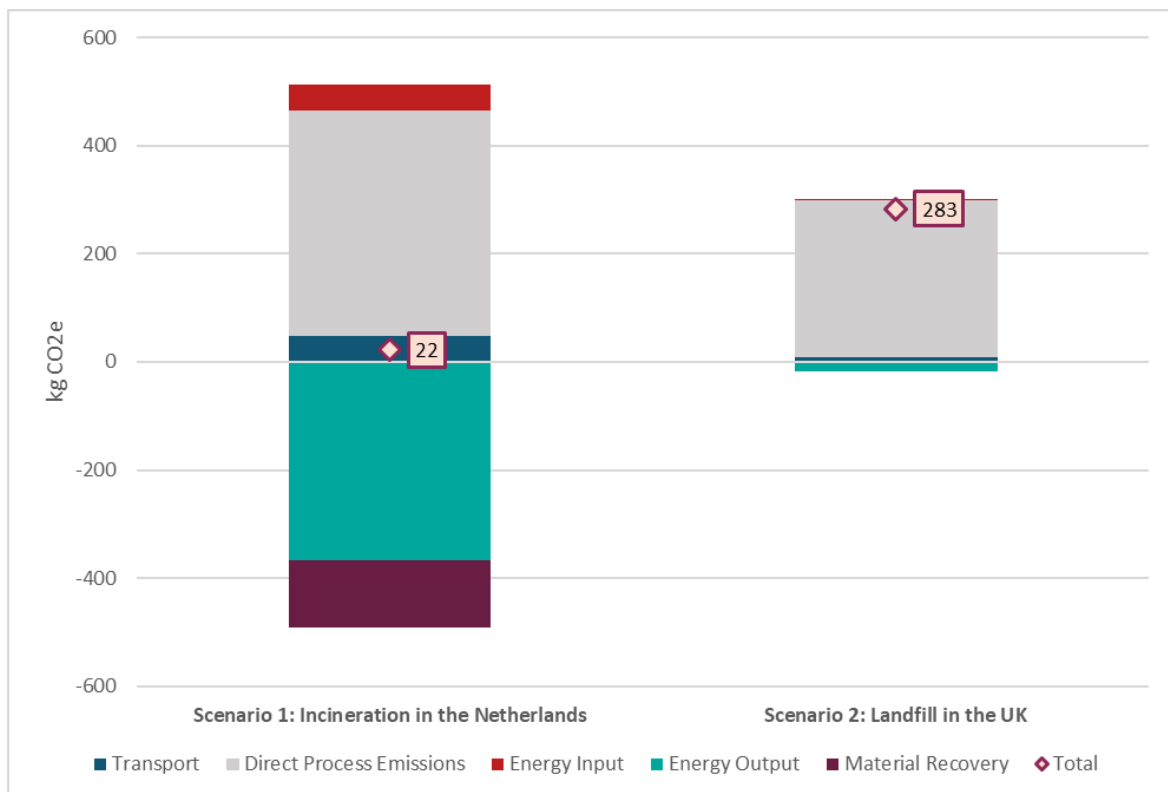
⁹ Based on 2018 export figures. Data sourced from the Environment Agency, Natural Resources Wales, Scottish Environment Protection Agency, Northern Ireland Environment Agency and the National TFS Office Dublin City Council.

For every tonne of waste diverted from efficient incineration for electricity and heat in the Netherlands and sent to landfill in the UK, an additional 261 kilograms of CO₂e will be emitted. ¹⁰

This is equivalent to the emissions from running ten lightbulbs for a whole year. ¹¹



Figure 1: KgCO₂e Emitted Per Tonne of Waste Treated Via Incineration in the Netherlands and Landfill in the UK



¹⁰ Assumptions used in the modelling of this figure are provided in Appendix 2.

¹¹ Based on halogen bulbs (42 watts), used for 8 hours a day 365 days of the year, in the UK.

The Dutch Government has a responsibility to reduce its own greenhouse gas emissions, but should not be introducing policies which have a **perverse effect** and actually result in **increased greenhouse gas emissions elsewhere in Europe**. The Dutch Government has already argued for a Europe-wide reduction of 55% greenhouse gases by 2030.¹² The Dutch Government's own criteria for its climate measures acknowledges that there should be limited leakage effects, but the evidence shows that there will be a **significant displacement of carbon from the Netherlands to the UK and ROI**. This also means that the waste will be **moved down the waste hierarchy in contradiction** to the principles of waste management.

The majority of Dutch Energy-from-Waste (EfW) facilities provide heat for **city heating networks** that deliver heat to homes and industry. The import tax will **endanger heat production and supply** – this lost energy source will have to be replaced with alternative sources, likely to increase emissions in the Netherlands from energy generation.

Those Member States without sufficient residual waste treatment infrastructure may need to **increase their proportion of waste being landfilled**.

The Import Tax Will Reduce Recycling

In the Netherlands, a likely impact of the import tax is that domestic EfW facilities will over time – as the supply chain unravels – have insufficient waste which in turn is likely to result in a reduction in **gate fees** in order to compete for waste. Making residual waste treatment cheaper will serve to **undermine the economics of recycling**, which in turn will impact **domestic recycling rates**.

The Import Tax Will Impact the Dutch Economy



There will be **significant financial impacts** for the UK and ROI waste sector and local authorities, which will lead to the termination, and possibly even the collapse of waste disposal contracts.









In the Netherlands, Dutch EfW facilities will either have to **bear the cost of the import tax**, or risk **losing access to vital feedstock**. With the proposed tax due to be implemented in less than five months, there is **very little time for the industry to adapt**. This will make the facilities **less efficient** and may even result in the **closure of some facilities, putting jobs at risk and impacting on the Dutch economy**. Tax revenue would **also be marginal** as import volumes would reduce. As many EfW facilities in the Netherlands are owned by local authorities, these losses would **impact on local tax payers**.

¹² Implementation of the Urgenda judgment, letter from Eric Wiebes Minister of Economic Affairs and Climate to The Chairman of the House of Representatives of the States General. 28 June 2019.

Appendix 1 – RDF Industry Group Members

Netherlands:	
	AEB Amsterdam BV
	Attero BV
	HVC Group
	N+P Recycling BV
	Twence BV
Scandinavia:	
	EFO
	Rekom
France:	
	Suez Environnement
Germany:	
	swb Entsorgung
UK & Ireland:	
	Associated British Ports
	Biffa

UK and Ireland (cont.):	
	Countrystyle Group
	CWM Environmental
	ENVA
	Cawleys
	Combineering
	DFDS Seaways
	FCC Environment
	Geminor UK
	GP Shipping
	Indaver Ireland
	McGrath Group
	Panda
	Powerday
	Re-Gen

 <p>REMONDIS[®] WORKING FOR THE FUTURE</p>	Remondis JBT
 <p>renewi[®] waste no more</p>	Renewi
 <p>RiverRidge Rethinking Resources</p>	RiverRidge
 <p>SCA</p>	SCA UK
 <p>SENECA Resource-Recovery Circular Service</p>	Seneca Environmental Solutions
 <p>SOCOTEC</p>	Socotec
 <p>TOTUS[®] Environmental</p>	Totus Environmental
 <p>willshee's waste & recycling</p>	Willshee's Waste & Recycling

Appendix 2 - Assumptions Used in Carbon Modelling

Composition data is based on England's latest kerbside residual waste composition.¹³

Material	%
Paper	10.5
Card	3.9
Plastic film	6.9
Dense plastic	8.0
Textiles	4.1
Sanitary	6.8
Wood	1.3
Other non-combustible	3.6
Soil	0.8
Misc non-combustible	4.2
Glass	3.7
Ferrous	0.6
Aluminium	0.7
WEEE	1.2
Haz	0.8
Garden waste	3.3
Kitchen waste	30.9
Other putrescibles	5.1
Fines	2.3

Rounding means the composition does not equal 100%

¹³ Defra (2013) EV0801 *National compositional estimates for local authority collected waste and recycling in England, 2010/11*

		Incineration in the Netherlands	Landfill in the UK
UK road transport	From - to	Pre-treatment facility to port	Direct delivery and via transfer station to landfill
	Distance (km)	70	30
	Kg CO _{2e} per tonne per km	0.27 ¹⁴	0.27 ¹⁵
Shipping of RDF	Method	Sea container	
	Distance (km)	350	
	Kg CO _{2e} per tonne per km	0.03 ¹⁶	
Netherlands road transport	Transport mode	Road	
	From - to	Pre-treatment facility to port	
	Distance (km)	70	
	kgCO _{2e} per tonne per km	0.27 ¹⁷	

¹⁴ UK Government GHG Conversion Factors for Company Reporting

¹⁵ UK Government GHG Conversion Factors for Company Reporting

¹⁶ UK Government GHG Conversion Factors for Company Reporting

¹⁷ UK Government GHG Conversion Factors for Company Reporting

		Incineration in the Netherlands	Landfill in the UK
Pre-treatment process	Pre-treatment process	Metals removal, shred and bale	None
	% metals recovered	70% ferrous, 40% non-ferrous ¹⁸	0%
R1 facility performance	Electricity generation efficiency (gross)	15% ¹⁹	
	Heat generation efficiency (gross)	28% ²⁰	
R1 facility – material recovery	% ferrous recovered	95%	
	% non-ferrous recovered	75% ²¹	
Pre-treatment facility energy demand: Electricity	kWh per tonne of residual waste	15 ²²	

¹⁸ Sampling data from UK MBT facilities

¹⁹ CE Delft (2019), Methodiek duurzaam aanbesteden afval

²⁰ CE Delft (2019), Methodiek duurzaam aanbesteden afval

²¹ Dutch law demands that at least 75% of the non-ferrous fraction (>6mm) in IBA is recovered for recycling

²² WRATE

		Incineration in the Netherlands	Landfill in the UK
Pre-treatment facility energy demand: Diesel	litre per tonne of residual waste	2 ²³	
R1 facility energy demand: Electricity	kWh per tonne of residual waste	80 ²⁴	
R1 facility energy demand: Diesel	litre per tonne of residual waste	3 ²⁵	
Landfill energy demand: Electricity	kWh per tonne of residual waste		0.56 ²⁶
Landfill energy demand: Diesel	litre per tonne of residual waste		0.60 ²⁷
Electricity generation at R1 facility	kWh per tonne of RDF	594 ²⁸	

²³ WRATE

²⁴ Assumption based on known facilities

²⁵ Assumption based on known facilities

²⁶ WRATE

²⁷ WRATE

²⁸ Calculated in Eunomia Atropos model

		Incineration in the Netherlands	Landfill in the UK
Heat generation at R1 facility	kWh per tonne of RDF	594 ²⁹	
Electricity generation at landfill	kWh per tonne of residual waste		66 ³⁰
Carbon intensity of electricity generation UK (MARGINAL)	kgCO _{2e} /kWh		0.26 ³¹
Carbon intensity of electricity generation Netherlands (MARGINAL)	kgCO _{2e} /kWh	0.45 ³²	
Carbon intensity of heat generation Netherlands (MARGINAL)	kgCO _{2e} /kWh	0.20 ³³	

²⁹ Calculated in Eunomia Atropos model

³⁰ Calculated in Eunomia Atropos model

³¹ DECC/HM Treasury appraisal toolkit tables, March 2017

³² Eunomia in-house Euro Waste Model

³³ Calculated from CV of gas

Eunomia's in-house Atropos model was used to run the carbon modelling. It has two components, a UK landfill model and an incineration model. Not all assumptions used in the modelling are listed. For more information on assumptions, please see the following sources:

- **UK landfill model:** largely aligned with the national methane emissions model for landfill (MELMod). Eunomia / H Oonk (2011) Inventory Improvement Project - UK Landfill Methane Emissions Model, Report to Defra and DECC
- **Incineration model:** Largely based on the EU Reference Model on Waste. Eunomia / CRI (2014) "Development of a Modelling tool on Waste Generation and Management" Appendix 6: Environmental Modelling; Final Report for the European commission DG Environment, February 2014