

CEWEP

Country report 2018

Finland



“Municipal Waste” (MW) means waste from households as well as commercial, industrial and institutional waste, which because of its nature and composition is similar to waste from households (excluding hazardous waste).

“Solid Recovered Fuels” (SRF):- solid fuel prepared from non-hazardous waste to be utilised for energy recovery in incineration or co-incineration plants, and meeting the classification and specification requirements laid down in CEN/TS W100343003.

“Refuse Derived Fuels” (RDF): broader than definition of SRF. In the Country Report only RDF expression is used and it comprises SRF as well.

A. Amount of Waste

In your <u>country</u> in million tonnes (Reference year: 2016)	
Total amount of Municipal Waste (MW): MW production / inhabitant / year: ____ kg/inhabitant	503 kg/inhabitant
Total amount of household waste	46 % of total MSW (2,77 Mt)
Total amount of commercial/industrial/institutional waste similar to household waste	54 %
Total amount of industrial/commercial waste	8 % (industrial production)
Total amount of waste	122,9 Mt (76 % mining and excavation, 11 % construction, 8 % ind. production, 2 MSW, 4 % others)

B. Treatment of Waste

In your <u>country</u> (concerning MW) in million tonnes (Reference year: 2016)	
Recycling (including composting)	42 %
Incineration	55 %
Landfilling	3 %

Total Amount of thermally treated waste in million tonnes (Reference year: 2016)	
In WtE plants/dedicated RDF plants	1,665
In Cement kilns	0,0935

Number of plants (Reference year: 2018 (same as 2016-2017))	
WtE plants	8
Dedicated RDF plants	1
R1 plants	9

Capacity development in your <u>country</u> (Please include retrofitted/closing facilities)	Years			
	2019 – 2025		After 2025	
	Additional Capacity, ktonnes	Additional number of plants	Additional Capacity, ktonnes	Additional number of plants
Planned additional Waste-to-Energy plants:	0,24-0,28	2-3	0	0
Planned additional RDF plants:	unknown	unknown	unknown	unknown

All (if it is not possible to specify separately)	0,24-0,28	2-3	0	0
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C. Energy production in Waste-to-Energy and dedicated RDF plants

1. Total Electricity and Heat production in Waste-to-Energy and dedicated RDF plants

Reference year: 2017

Total Electricity and Heat production in Waste-to-Energy plants and dedicated RDF plants	
Reference amount of thermally treated waste in million tonnes:	1,665
Number of plants:	9
Electricity produced in million MWh/ year	
Electricity exported in million MWh/ year	0,731 MWh in 2017
Heat* produced in million MWh/ year	
Heat* exported in million MWh/ year	3,556 MWh in 2017

* incl. heating, cooling and steam

2. Recognition of energy produced in Waste-to-Energy and RDF plants as renewable

How much %? (Please indicate if it refers to energy production or waste input): 50 % of MSW and 60 % RDF based waste input (composition)

Contribution of WtE to the production of renewable energy in your country (%)

D. Residues

Reference year: 2017

Slag/bottom ash	
Annual amount in million tonnes:	0,28
Method of utilisation or disposal (%): (road construction, cement production, construction block fabrication, landfill: considered as recovery (e.g. as layer) or disposal?)	Processed and recycled/recovered 100 %, mainly in construction but also used in asphalt production and construction block
Recovery of metals	
Annual amount (%):	
Ferrous (F) material extracted (gross weight, %):	
Non Ferrous (NF) material extracted (gross weight, %):	
Typical composition of the NF fraction (% Al, other NF, inert):	

FGC (Flue Gas Cleaning) residues,
(incl. filter dust and boiler ash)

Annual amount in million tonnes:	
Method of treatment or disposal (e.g. salt mine, hazardous landfill site, stabilisation, immobilization and use as asphalt filler):	Fly and APC ashes landfilled after stabilization (hazardous waste)

E. Waste shipments of MUNICIPAL and SIMILAR WASTE

Into/from your country, reference year: 2017

	MW	RDF
Shipments in	0	40 000 t of wood waste from UK, Norway and Russia
Shipments out	50 000 t into Estonia and Sweden	20 000 t into Estonia and Sweden

(if possible please indicate the countries to/from which the shipments are made)

F. Responsibilities Public - Private

Type of waste:	Responsibility for treatment: Public/Private	Responsibility for collection and transport: Public/Private	Municipalities' responsibility for monitoring: Yes/No
from private households	Public	Both	Yes
commercial waste similar to household waste	Private	Private	No
industrial/commercial waste	Private	Private	No
hazardous waste	Both	Both	No

G. Refuse Derived Fuels (RDF)

	In million tonnes (2016)
MW input in Mechanical-Biological Treatment (MBT)	0,1 Mt
Production of RDF	50 % RDF, 43 % to WtE, 7 % to recycling
Planned capacity (of MBT)	0

H. Taxes

1. Waste-to-Energy taxes for Municipal Waste (MW)

Reference year: 2018

	Tax in €/tonne MW	Tax for export in €/tonne MW	Tax for import in €/tonne MW	Other tax (e.g. CO ₂ , energy)	Rules to avoid double taxation if MS of destination and of dispatch have taxes
Incineration	0	0	0	0	
Co-Incineration	0	0	0	0	

Additional comments: Use of waste in energy production is not taxed in Finland. Co-incineration belongs to EU ETS.

2. Landfill taxes and bans

Reference year: 2017

Average Net fee for landfilling in €/tonne	VAT (Value Added Tax) rate %	Landfill tax in €/tonne (If landfill tax is planned please indicate when and the amount planned)	Total price for landfilling €/tonne MW	Landfill ban (If landfill ban is planned please indicate when and for what type of waste)
82,5 € (excluding VAT and landfill tax)	24	70	172 € (inc. VAT and landfill tax)	From 1.1.2016 onwards, for all waste, TOC 10 %

Additional comments: