

CEWEP

Country report 2018

Portugal



“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: 2017)	
Total amount of Municipal Waste (MW): MW production / inhabitant / year: 484 kg/inhabitant	
Total amount of household waste	5 006 517 tonnes
Total amount of commercial/industrial/institutional waste similar to household waste	In Portugal, Municipal waste management systems collect household waste and (small) commercial and industrial waste together. Large commerce and industries are responsible for their waste management.
Total amount of industrial/commercial waste	
Total amount of waste	5 006 517 tonnes

B. Treatment of Waste

In your <u>country</u> (concerning MW) in million tonnes (Reference year: 2017)	
Recycling (including composting)	1 102 thousand tonnes
Incineration	1 122 thousand tonnes
Landfilling	1 874 thousand tonnes

Total Amount of thermally treated waste in million tonnes (Reference year: 2017)	
In WtE plants/dedicated RDF plants	1 122 thousand tonnes
In Cement kilns	1.8 thousand tonnes (RDF from municipal waste) + 175 thousand tonnes RDF from industrial waste mostly imported.

Number of plants (Reference year: 2017)	
WtE plants	4
Dedicated RDF plants	0
R1 plants	4

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:	100	1 additional plant	130	1 additional line
Planned additional RDF plants:	--	--	--	--
All (if it is not possible to specify separately)	--	--	--	--

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:	1 183 274 tonnes
Number of plants:	4
Electricity produced in million MWh/ year	635 762 MWh
Electricity exported in million MWh/ year	547 424 MWh
Heat* produced in million MWh/ year	0
Heat* exported in million MWh/ year	0

* 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): _____

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:	232 thousand tonnes
Method of utilisation or disposal (%): (road construction, cement production, construction block fabrication, landfill: considered as recovery (e.g. as layer) or disposal?)	60% have been used in road construction, landfill cover and backfilling.
Recovery of metals	
Annual amount (%):	
Ferrous (F) material extracted (gross weight, %):	14 880 tones (all metals included, but mostly ferrous)
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:	38 435
Method of treatment or disposal (e.g. salt mine, hazardous landfill site, stabilisation, immobilization and use as asphalt filler):	Around 18% were mixed with cement and landfilled in special landfill cells and there remaining 82% were sent to hazardous waste treatment operators.

E. Waste shipments of MUNICIPAL and SIMILAR WASTE

Into/from your country, reference year: 2017

	MW	RDF
Shipments in	20 thousand tonnes (waste from mechanical treatment of waste)	79.8 thousand tonnes mostly from UK
Shipments out	irrelevant	irrelevant

(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 responsibility, but long term contracts with private companies and public/private partnerships are possible.	Public responsibility from municipalities, but long term contracts with private companies and public/private partnerships are possible.	Yes
commercial waste similar to household waste	Waste from small commercial/industrial activity spread in the urban environment is treated together with household waste.	Waste from small commercial/industrial activity spread in the urban environment is treated together with household waste.	Yes
industrial/commercial waste	Large commercial/industrial activity is responsible for its waste treatment	Large commercial/industrial activity is responsible for its waste treatment	no
hazardous waste	Private	Private	no

G. Refuse Derived Fuels (RDF)

	In million tonnes (Year 2017)
MW input in Mechanical-Biological Treatment (MBT)	28% of MW (1.4 million tonnes) to TMB + 7% of MW (,35 million tonnes) to mechanical treatment
Production of RDF	irrelevant
Planned capacity (of MBT)	

H. Taxes

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

Reference year: 2017

	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	2 (R1 plants) 5.4 (D10 plants)				
Co-Incineration	2				

Additional comments:

2. Landfill taxes and bans

Reference year: _____

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)
	5%	7.7 (planned: 11€/tonne in 2020)	8	no

Additional comments:

I. Employment

The amount of employment created by the Waste-to-Energy industry

Number of jobs (full time equivalent) per WtE plant including operation process, administration and outsourced personnel hired on a regular basis, i.e. during maintenance: estimation: 300 people.

You can also provide this information in another unit, e.g. jobs per 100,000 t/a capacity