

CEWEP Country Report 2016

Luxembourg



“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>	Year 2014	In million tonnes
Total amount of Municipal Waste (MW): MW production / inhabitant / year: ____ kg/inhabitant	2014	0,343*
Total amount of household waste	2014	0,343*
Total amount of commercial/industrial/institutional waste similar to household waste	2014	/

Total amount of industrial/commercial waste	2014	?
Total amount of waste	2014	0,343*

*Source: Eurostat 2016

B. Treatment of Waste

In your <u>country</u> (concerning MW)	%	Year 2014	In million tonnes
Recycling (including composting)		2014	0,153189*
Incineration		2014	0,127811
Landfilling		2014	0,062*

*Source: Eurostat 2016

Total Amount of thermally treated waste in million tonnes	Country (LUXEMBOURG)	Organisation/ company
	In WtE plants/dedicated RDF plants	151.635
In Cement kilns	?	CIMALUX

Number of	Country (LUXEMBOURG)	Organisation/ company
	WtE plants	1
Dedicated RDF plants	/	/
R1 plants	1	SIDOR

Capacity development in your <u>country</u>	Years			
	2017 – 2020		2021 – 2025	
	Additional Capacity, ktonnes	Additional number of plants	Additional Capacity, ktonnes	Additional number of plants
Planned Waste-to-Energy plants:	/	/	/	/
Planned 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: 2015 (if data from 2015 are available, please add them and specify the year)

Total Electricity and Heat production 2015	Waste-to-Energy plants and dedicated RDF plants	
	Country (LUXEMBOURG)	Organisation/company
Reference amount of thermally treated waste in million tonnes:	0,152287	SIDOR
Number of plants:	1	SIDOR
Electricity produced in million MWh/ year	0,106335	SIDOR
Electricity exported in million MWh/ year	0,080181	SIDOR
Heat* produced in million MWh/ year	/	/
Heat* exported in million MWh/ year	/	/

* 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 (%) _____

In your country	Electricity	Heat
Market price per kWh in €cent/kWh	2,5 – 3 €cent/kWh	/
Subsidy or market based instruments (Please specify e.g. green certificates, feed in tariffs)	?	/
Price incl. subsidy or market based instruments in €cent/kWh	?	/

D. Residues

Reference year: 2014 (if data from 2015 are available, please add them and specify the year)

Slag/bottom ash	Country	Organisation/company
Annual amount in million tonnes:	0,026413	SIDOR
Method of utilisation or disposal (%): (road construction, cement production, construction block fabrication, landfill)	road construction	MAV
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):	FE: 7 % NE: 2,1 % Mineral: 90,9 %	MAV

FGC (Flue Gas Cleaning) residues, (incl. filter dust and boiler ash)	<u>Country (LUXEMBOURG)</u>	<u>Organisation/company</u>
Annual amount in million tonnes:	0,004721	GSES
Method of treatment or disposal (e.g. stabilisation, salt mine, hazardous landfill site):	salt mine	GSES

E. Export and Import of MUNICIPAL and SIMILAR WASTE

Into/from your country, reference year: **2014** (if data from 2015 are available, please add them and specify)

	<u>MSW</u>	<u>RDF</u>
Export	/	/
Import	/	/

F. Responsibilities Public - Private

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

G. Refuse Derived Fuels (RDF)

In your country, reference year: _____

1. **Amount of RDF/year**
 - a. **Current Production:** _____
 - b. **Potential:** _____
2. **Experience (market development etc.):** _____
3. **Capacity for mechanical-biological treatment/ year**
Currently: _____
Planned: _____

H. Prices and taxes

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

Reference year: 2015

Average Net fee in €/tonne	VAT (Value Added Tax) rate %

	Tax in €/tonne MW	Tax for export in €/tonne MW	Tax for import in €/tonne MW	Rules to avoid double taxation if MS of destination and of dispatch have taxes	Comments
Incineration	96,00	/	/		
Co-Incineration	/	/	/		

Waste-to-Energy total price in €/tonne MW 115,00

2. Landfill taxes and bans

Reference year: 2015

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)
175 – 200 .-				

I. Investment

- The average investment cost per tonne of annual capacity (for a new plant, considering 15-20 years operation):
- Investment cost regarding flue gas cleaning system (% of total investment):
- The average investment cost per MW heat and electricity installed respectively:

J. Employment

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

Jobs (full time equivalent) per WtE plant including operation process, administration and outsourced personnel hired on regular basis i.e. during maintenance (reference to total capacity):

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