

Waste Business Monitor

The only source of "real time" trend data analysing global waste plant developments



ALL DATA CURRENT AT

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In this month's report...

The latest waste plant developments in June 2015

- Latest Monthly Projects by Facility Type and Feedstock
- Latest Monthly Capacity by Facility Type and Feedstock
- Latest Power Generation Projects Listed by Facility Type and Feedstock
- Latest Country Focus Top Ten Countries with number and value of projects listed
- Completion Date Focus



Essential for waste equipment manufacturers, operators and service companies

Welcome to Waste Business Monitor.

Welcome to your complimentary issue of AcuComm's Waste Business Finder (WBM).

WBM provides an ongoing and comprehensive analysis of current projects in the global waste industry, enabling you to establish the level of activity in the different sectors of the waste industry around the world. The data in is taken from AcuComm's Waste Business Finder database. This is a database of projects compiled and maintained by us on a daily basis. The information in it – and therefore in Waste Business Monitor – is not readily available from any other source.

WBM is organised in the following sections:

The first section examines new projects reported in the latest month. It looks at the overall number and value of these, and then divides them in two ways. Each project is allocated a principal facility type, such as anaerobic digestion, gasification plant or WtE incineration plant.

Secondly, each project is allocated a principal feedstock type, such as municipal solid waste, plant biomass or food for example. Then, the waste capacity and power generation capacity of each project is examined. After this, we look at which countries are most active, and when projects are reported as being likely to complete.

I hope Waste Business Monitor is useful to you. If you have any questions or queries, or if you have a project which you would like to see included in our Waste Business Finder database – free of charge – then please do get in touch

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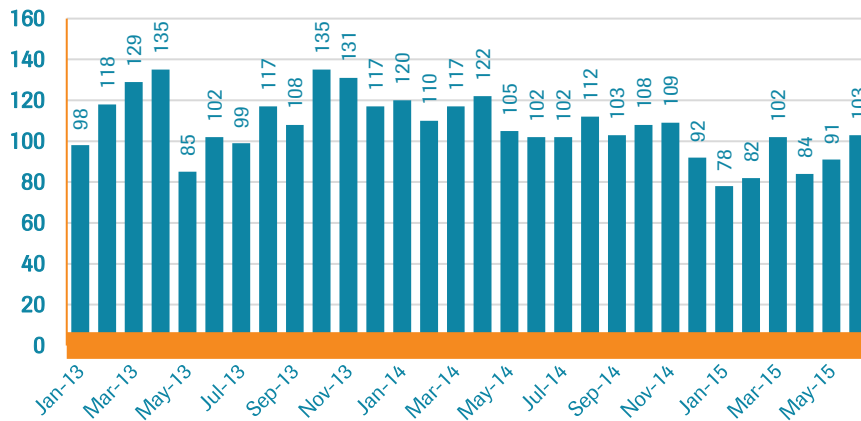


Projects This Month: June 2015

Overview

AcuComm reported on 103 new waste projects in June 2015. This takes the annual number (since July 2014) to 1,166, and the total overall since January 2013 to 3,216.

Number of Projects by Month

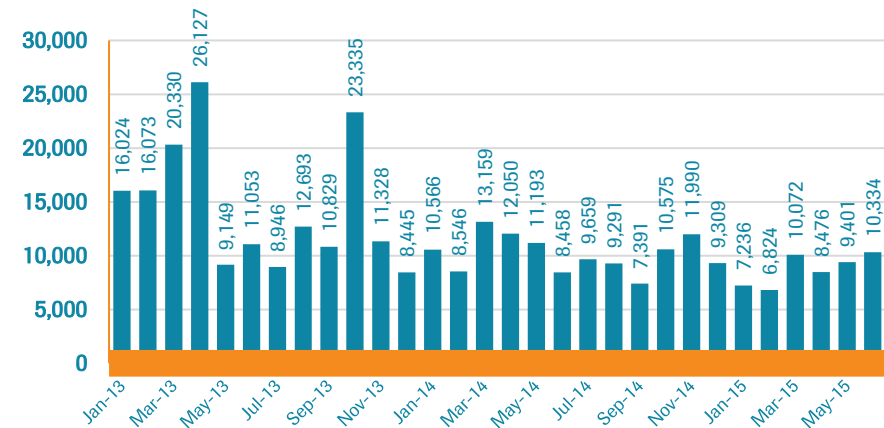


The total estimated value of these projects is US\$10,334 million. This takes the total estimated value of projects reported since July 2014 to US\$110,558 million. The average estimated value of a waste project over this period is US\$95 million.



Each new waste project represents on-going investment of an average of around US\$100 million.

Estimated Total Value of Projects (US\$m)



Incineration with energy recovery and recycling projects form the largest number in June 2015, accounting for 25 each, or 24.3% of the total each. This was followed by waste processing projects (13 projects, or 12.6%) and anaerobic digestion (10 projects, or 9.7%).



Incineration with energy recovery is also the leading facility type by estimated value, at US\$1,945 million, or 18.8% of the total. This was followed by waste processing with US\$1,500 million, or 14.5% of the total, and non-WtE incineration with US\$864 million, or 8.4%.

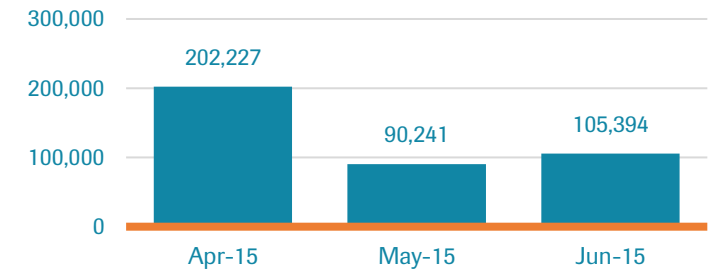
Quarterly Project Data Comparison

Key Indicators for April 2015 to June 2015

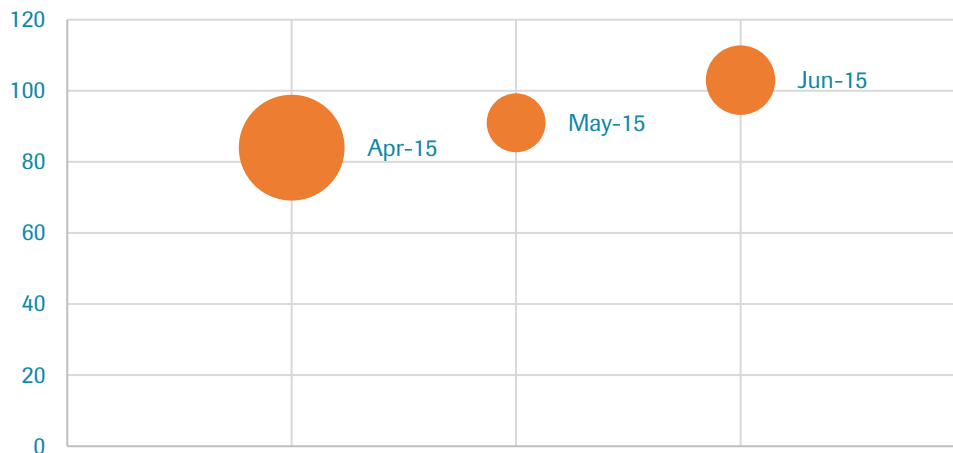
	Apr-15	May-15	Jun-15	Quarterly Total
Number of projects	84	91	103	278
Total estimated value (US\$ millions)	8,476	9,401	10,334	28,212
Average value (US\$ millions)	101	103	100	101
Reported waste capacity (tonnes)	6,875,714	3,338,916	4,848,109	15,062,739
Average annual capacity per project (tonnes)	202,227	90,241	105,394	128,741
Reported power generation (MW)	937	392	546	1,875
Average MW per project	47	15	20	25

This page compares data on projects reported in the current month, compared with the previous two months. This provides a comparison of the most recent data, and also a quarterly total. The size of the circles in the bottom left graph represents the total estimated project values, as reported in the table on this page.

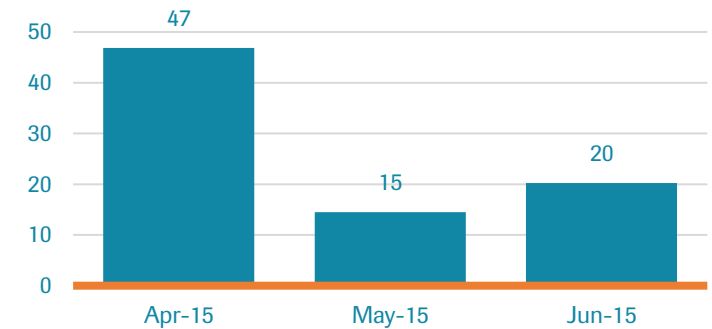
Average annual capacity per project (tonnes)



Projects by Number and Estimated US\$ Value



Average MW per project



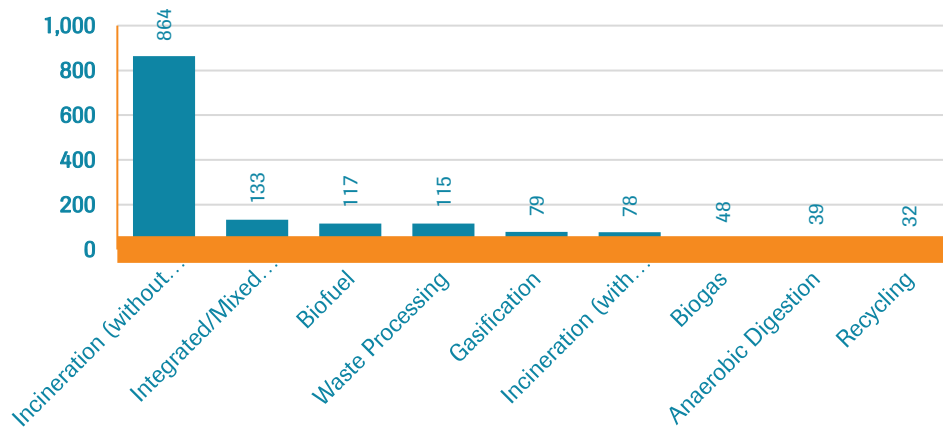
Latest Monthly Projects by Facility Type (June 2015)

Facility Type	Projects	With Value (US\$m)	Reported Value	Total Estimated Value	Average value
Anaerobic Digestion	10	4	125	391	39
Biofuel	5	1	12	583	117
Biogas	6	3	17	288	48
Gasification	2	2	158	158	79
Incineration (energy recovery)	25	17	1,053	1,945	78
Incineration (no energy recovery)	1	0	0	864	864
Integrated Facilities (IWMF)	3	0	0	399	133
Landfill	6	0	0	171	29
MBT	0	0	0	0	-
Recycling	25	11	176	811	32
Waste Processing	13	7	216	1,500	115
Others	7	1	69	3,225	461
Total	103	46	1,826	10,334	100

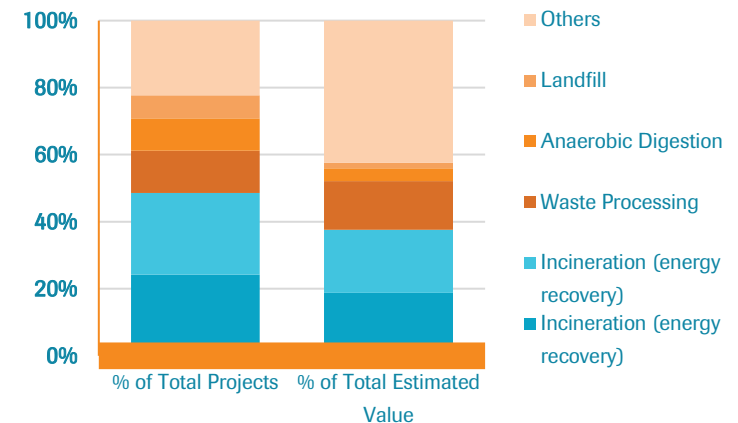
Latest Monthly Projects by Facility Type % of Total (June 2015)

Facility Type	% of Total Projects	% of Total Estimated Value
Anaerobic Digestion	9.7	3.8
Biofuel	4.9	5.6
Biogas	5.8	2.8
Gasification	1.9	1.5
Incineration (energy recovery)	24.3	18.8
Incineration (no energy recovery)	1.0	8.4
Integrated Facilities (IWMF)	2.9	3.9
Landfill	5.8	1.7
MBT	0.0	0.0
Recycling	24.3	7.9
Waste Processing	12.6	14.5
Others	6.8	31.2
Total	100.0	100.0

Average Value of Projects, Jun 2015 (US\$m)



Projects By Facility Type, Jun 2015



In terms of waste feedstock type, municipal solid waste (MSW) was the leading category in June 2015. MSW accounted for 30 projects (29.1% of the total) with an estimated value of US\$2,492 million (24.1% of the total).



Wood and sewage/wastewater were the other principal feedstocks in June 2015. Wood accounted for 19 projects, with an estimated value of US\$1,843 million, while sewage/wastewater accounted for 10 projects, equal to US\$419 million.



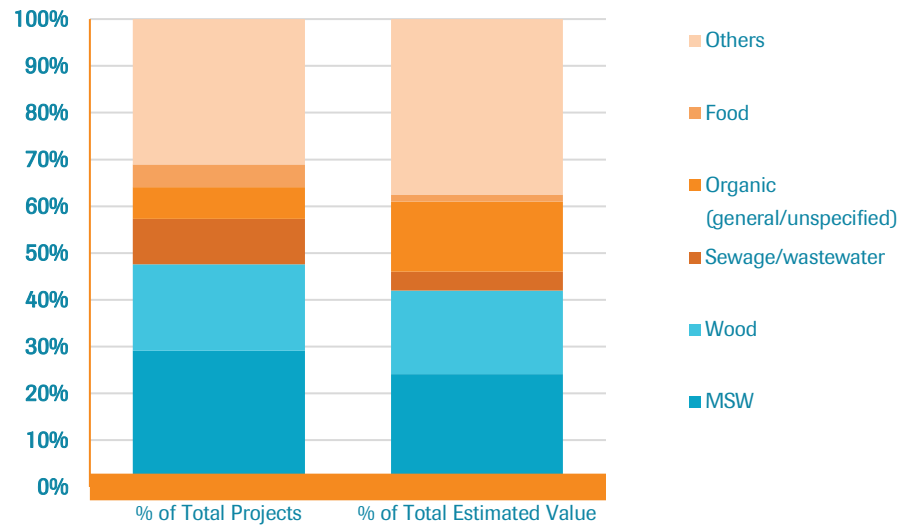
Latest Monthly Projects by Feedstock Type (June 2015)

	Projects	With Value (US\$m)	Reported Value (US\$m)	Total Estimated Value	Average value (US\$m)
Animal	0	0	0	0	-
Clinical	0	0	0	0	-
Construction/Demolition	3	2	6	37	12
e-Waste	4	0	0	185	46
Food	5	2	85	150	30
Gas	2	0	0	555	277
Glass	2	0	0	62	31
Hazardous	1	1	1	1	1
Heat	1	0	0	31	31
Industrial	2	2	20	20	10
Metals	3	2	66	113	38
MSW	30	15	827	2,492	83
Oil	1	0	0	49	49
Organic (general/unspecified)	7	2	115	1,552	222
Paper	2	0	0	145	72
Plant Biomass (non-waste)	1	0	0	104	104
Plant Biomass (waste)	4	3	126	269	67
Plastics	3	1	18	575	192
Radioactive	2	0	0	1,727	864
Rubber	1	1	5	5	5
Sewage/wastewater	10	4	72	419	42
Wood	19	11	484	1,843	97
Other	0	0	0	0	-
Total	103	46	1,826	10,334	100

Latest Monthly Projects by Feedstock Type (% of Total)

	% of Total Projects	% of Total Estimated Value
Animal	0.0	0.0
Clinical	0.0	0.0
Construction/Demolition	2.9	0.4
e-Waste	3.9	1.8
Food	4.9	1.5
Gas	1.9	5.4
Glass	1.9	0.6
Hazardous	1.0	0.0
Heat	1.0	0.3
Industrial	1.9	0.2
Metals	2.9	1.1
MSW	29.1	24.1
Oil	1.0	0.5
Organic (general/unspecified)	6.8	15.0
Paper	1.9	1.4
Plant Biomass (non-waste)	1.0	1.0
Plant Biomass (waste)	3.9	2.6
Plastics	2.9	5.6
Radioactive	1.9	16.7
Rubber	1.0	0.1
Sewage/wastewater	9.7	4.1
Wood	18.4	17.8
Other	0.0	0.0
Total	100.0	100.0

Projects By Feedstock Type, June 2015



Wood and other biomass-based feedstocks account for around one third of all new investment in waste technologies, reflecting a move away from traditional power generation in many countries.



Latest Monthly Capacity

Of the 103 projects listed in June 2015, 26 also reported an annual waste capacity. This amounted to 4.8 million tonnes, equal to an average of 186,466 tonnes per project, and an average of 583 tonnes per day per project.



WtE incineration was the largest facility type in terms of capacity, amounting to 1.7 million tonnes, or 35.9% of the total. This was followed by integrated facilities with 1.1 million tonnes (22.6%) and recycling with just over 0.7 million tonnes (14.6%).

WtE incineration projects represented 36% of reported new or planned waste project capacity in June 2015.

Reported Waste Capacity of Projects Listed by Facility Type (June 2015)

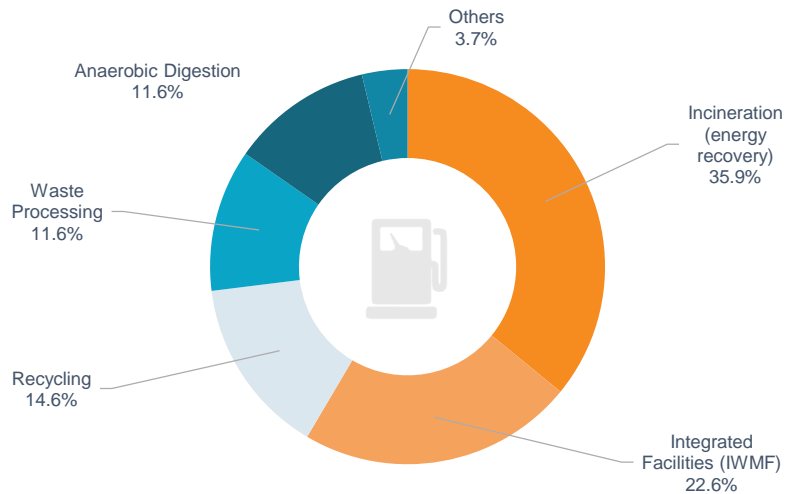
	Projects	With Reported Capacity	Reported Annual Capacity (tonnes)	Average Annual Capacity (tonnes)	Average Tonnes Per Day
Anaerobic Digestion	10	5	562,245	112,449	351
Biofuel	5	1	65,340	65,340	204
Biogas	6	0	0	-	-
Gasification	2	1	85,000	85,000	266
Incineration (energy recovery)	25	10	1,740,599	174,060	544
Incineration (no energy recovery)	1	0	0	-	-
Integrated Facilities (IWMF)	3	1	1,095,000	1,095,000	3,422
Landfill	6	0	0	-	-
MBT	0	0	0	-	-
Recycling	25	5	705,583	141,117	441
Waste Processing	13	2	564,342	282,171	882
Others	7	1	30,000	30,000	94
Total	103	26	4,848,109	186,466	583

Reported Capacity by Facility Type, % of Total (June 2015)

	% of Total Reported Capacity
Anaerobic Digestion	11.6
Biofuel	1.3
Biogas	0.0
Gasification	1.8
Incineration (energy recovery)	35.9
Incineration (no energy recovery)	0.0
Integrated Facilities (IWMF)	22.6
Landfill	0.0
MBT	0.0
Recycling	14.6
Waste Processing	11.6
Others	0.6
Total	100.0



% Capacity by Facility Type, June 2015



In June 2015, Ghana announced a major investment in upgrading the waste services of Accra, the capital city. This will provide an estimated 1.1 million tonnes of capacity and generate 57 MW of electricity.



Municipal solid waste accounted for just under 2.3 million tonnes of capacity in June 2015, equal to 46.6% of the total, and an average of 882 tonnes per project per day. The other major feedstock category was wood, which accounted for just over 0.9 million tonnes or 19.2% of the total.

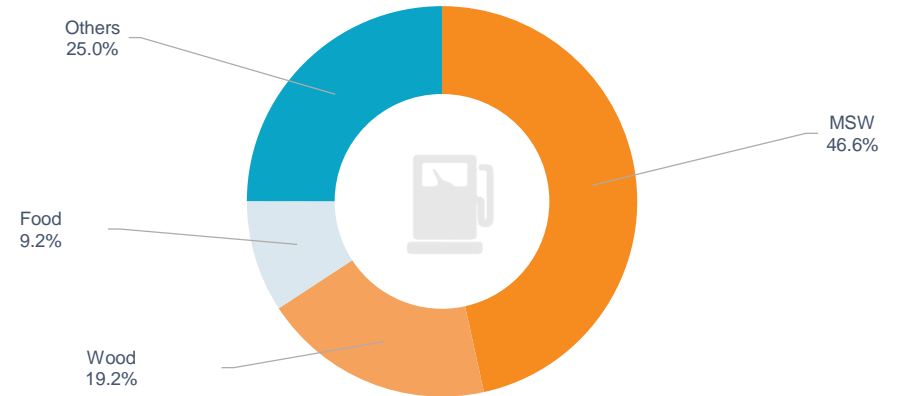
Latest Monthly Projects by Feedstock Type (June 2015)

	Projects	With Reported Capacity	Annual Capacity (tonnes)	Average Annual Capacity (tonnes)	Average Tonnes Per Day
Animal	0	0	0	-	-
Clinical	0	0	0	-	-
Construction/Demolition	3	1	182,500	182,500	570
e-Waste	4	0	0	-	-
Food	5	3	448,245	149,415	467
Gas	2	0	0	-	-
Glass	2	0	0	-	-
Hazardous	1	0	0	-	-
Heat	1	0	0	-	-
Industrial	2	1	316,000	316,000	988
Metals	3	0	0	-	-
MSW	30	8	2,256,937	282,117	882
Oil	1	0	0	-	-
Organic (general/unspecified)	7	1	60,000	60,000	188
Paper	2	2	108,862	54,431	170
Plant Biomass (non-waste)	1	0	0	-	-
Plant Biomass (waste)	4	2	354,000	177,000	553
Plastics	3	1	30,000	30,000	94
Radioactive	2	0	0	-	-
Rubber	1	0	0	-	-
Sewage/wastewater	10	2	159,665	79,833	249
Wood	19	5	931,900	186,380	582
Other	0	0	0	-	-
Total	103	26	4,848,109	186,466	583

Reported Capacity by Feedstock, % of Total (June 2015)

	Capacity as % of Total
Animal	-
Clinical	-
Construction/Demolition	3.8
e-Waste	-
Food	9.2
Gas	-
Glass	-
Hazardous	-
Heat	-
Industrial	6.5
Metals	-
MSW	46.6
Oil	-
Organic (general/unspecified)	1.2
Paper	2.2
Plant Biomass (non-waste)	-
Plant Biomass (waste)	7.3
Plastics	0.6
Radioactive	-
Rubber	-
Sewage/wastewater	3.3
Wood	19.2
Other	-
Total	100.0

% Capacity by Feedstock, June 2015



Municipal Solid Waste accounted for 46.6% of waste capacity in projects covered in the Business Finder database in June 2015.



Latest Power Generation

In June 2015, an estimate of annual power generation was available for 27 projects. This amounted to 546 MW in total. 56.4% of this was from WtE incineration with most of the remainder coming from integrated facilities and AD/biogas.

Incineration amounted to 17 projects with total reported generation of 308 MW, equal to 18 MW per plant. The most significant projects were a 145 MW biomass plant complex planned in Finland and a 42.5 MW biomass plant in Ireland.



WtE incineration, whether standalone or as part of an integrated facility, continued to dominate the reported power generation of projects in June 2015.

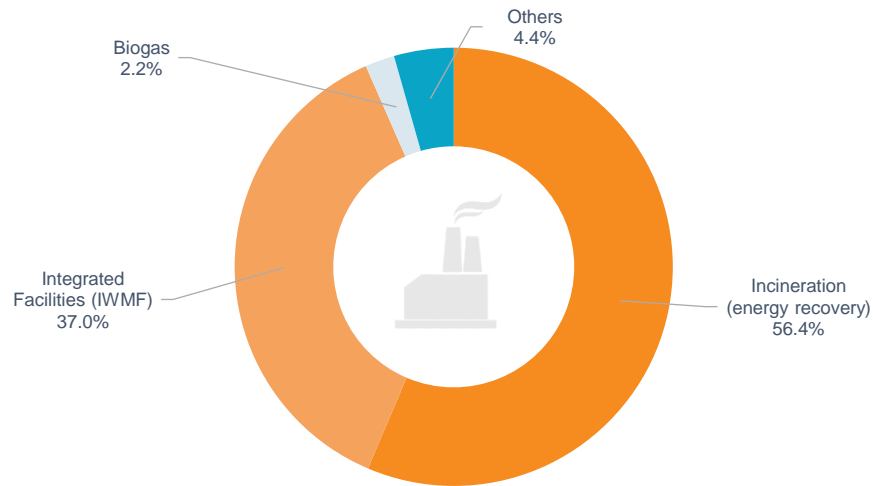
Reported Power Generation of Projects Listed by Facility Type (June 2015)

	Projects	With Reported MW Generation	Reported Annual MW Generation	Average MW Generation
Anaerobic Digestion	10	2	8	4
Biofuel	5	0	0	-
Biogas	6	3	12	4
Gasification	2	1	10	10
Incineration (energy recovery)	25	17	308	18
Incineration (no energy recovery)	1	0	0	-
Integrated Facilities (IWMF)	3	2	202	101
Landfill	6	1	5	5
MBT	0	0	0	-
Recycling	25	0	0	-
Waste Processing	13	0	0	-
Others	7	1	1	1
Total	103	27	546	20

Latest Reported Power Generation by Facility Type, % of Total (June 2015)

	% of Total Projects
Anaerobic Digestion	1.5
Biofuel	-
Biogas	2.2
Gasification	1.8
Incineration (energy recovery)	56.4
Incineration (no energy recovery)	-
Integrated Facilities (IWMF)	37.0
Landfill	0.9
MBT	-
Recycling	-
Waste Processing	-
Others	0.2
Total	100.0

% MW Generation by Facility Type, Jun 2015



In June 2015, 77% of power generation was through wood-fuelled facilities, amounting to 420 MW in total and 26 per reporting project. This was followed by MSW with 78 MW, equal to 14.3% of the total and an average of 19 MW per reporting project.



Latest Reported Power Generation of Projects Listed by Feedstock Type (June 2015)

	Projects	With Reported MW Generation	Reported Annual MW Generation	Average MW Generation
Animal	0	0	0	-
Clinical	0	0	0	-
Construction/Demolition	3	0	0	-
e-Waste	4	0	0	-
Food	5	2	8	4
Gas	2	2	6	3
Glass	2	0	0	-
Hazardous	1	0	0	-
Heat	1	0	0	-
Industrial	2	0	0	-
Metals	3	0	0	-
MSW	30	4	78	19
Oil	1	0	0	-
Organic (general/unspecified)	7	0	0	-
Paper	2	0	0	-
Plant Biomass (non-waste)	1	1	2	2
Plant Biomass (waste)	4	1	30	30
Plastics	3	0	0	-
Radioactive	2	0	0	-
Rubber	1	0	0	-
Sewage/wastewater	10	1	1	1
Wood	19	16	420	26
Other	0	0	0	-
Total	103	27	546	20

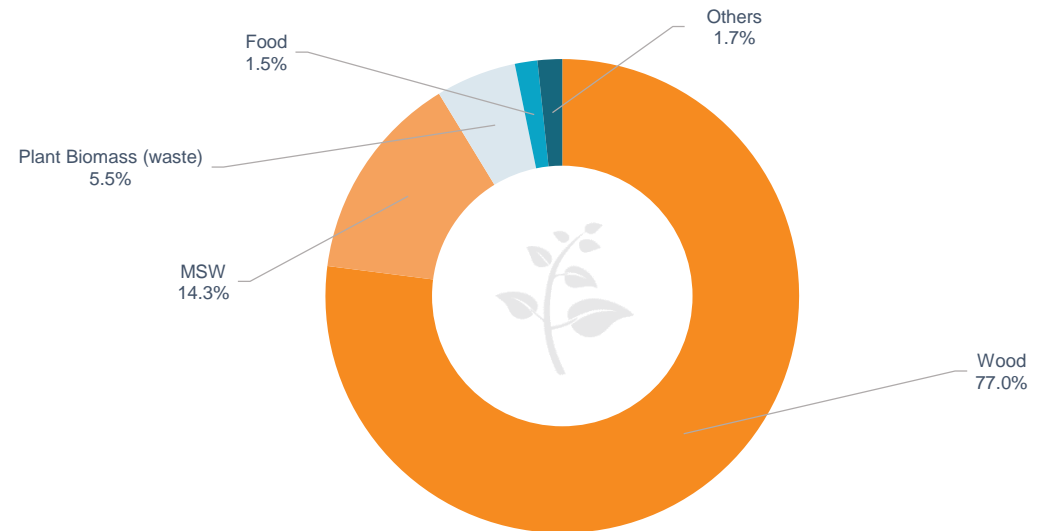
Latest Reported Power Generation by Feedstock Type, % of Total (June 2015)

	MW Generation as % of Total
Animal	-
Clinical	-
Construction/Demolition	-
e-Waste	-
Food	1.5
Gas	1.1
Glass	-
Hazardous	-
Heat	-
Industrial	-
Metals	-
MSW	14.3
Oil	-
Organic (general/unspecified)	-
Paper	-
Plant Biomass (non-waste)	0.4
Plant Biomass (waste)	5.5
Plastics	-
Radioactive	-
Rubber	-
Sewage/wastewater	0.2
Wood	77.0
Other	-
Total	100.0

Wood-based materials - whether waste products or grown specially - are increasingly being used as a fuel for providing domestic power for heat and light.



% MW Generation by Feedstock Type, June 2015



Latest Country Focus

The USA was the leading country in terms of projects reported in June 2015, with 29, equal to 28.2% of the total. This was followed by the UK with eight and France with seven.

In terms of reported value, the UK was the leader, with US\$340 million or 18.6% of the total. This was followed by Ireland with US\$225 million or 12.3%, and the USA with US\$195 million or 10.7%.



Significant waste investments occur not only in developed markets, but across the developing world.

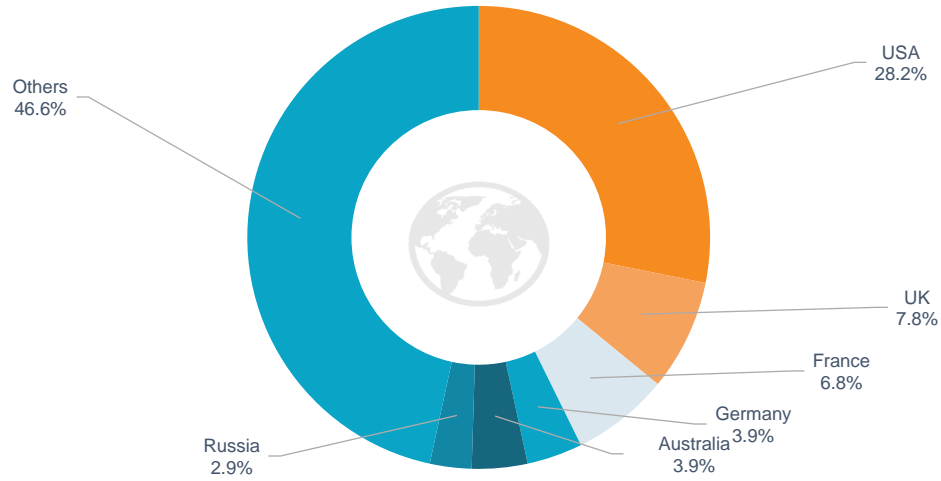
Top Ten Countries (number of projects listed), June 2015

	Projects	% of Total
USA	29	28.2
UK	8	7.8
France	7	6.8
Germany	4	3.9
Australia	4	3.9
Russia	3	2.9
Spain	3	2.9
Canada	3	2.9
United Arab Emirates	2	1.9
Netherlands	2	1.9
Subtotal	65	63.1
Others	38	36.9
Total	103	100.0

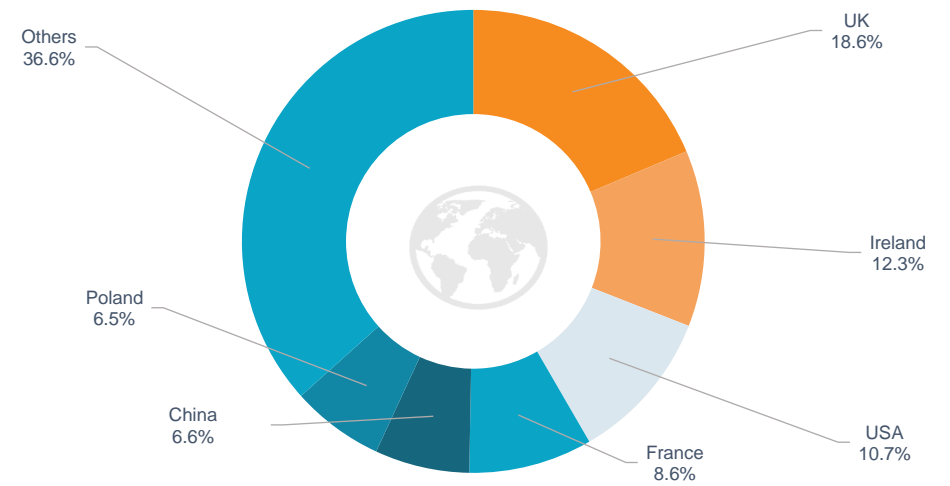
Top Ten Countries (value of projects listed), June 2015

	US\$ millions	% of Total
UK	340	18.6
Ireland	225	12.3
USA	195	10.7
France	158	8.6
China	121	6.6
Poland	118	6.5
Turkey	95	5.2
Vietnam	80	4.4
Estonia	68	3.7
Thailand	62	3.4
Subtotal	1,463	80.1
Others	364	19.9
Total	1,826	100.0

Leading Countries, Number of Projects, June 2015



Leading Countries, Value of Projects, June 2015



Completion Date Focus

Of the 103 projects reported on in June 2015, 59 give an indication of their likely completion date. There are 42 projects due to complete by the end of 2015, with a combined reported value of US\$279.1 million. A further seven projects are due to complete during 2016, and a further ten in 2017 or beyond.

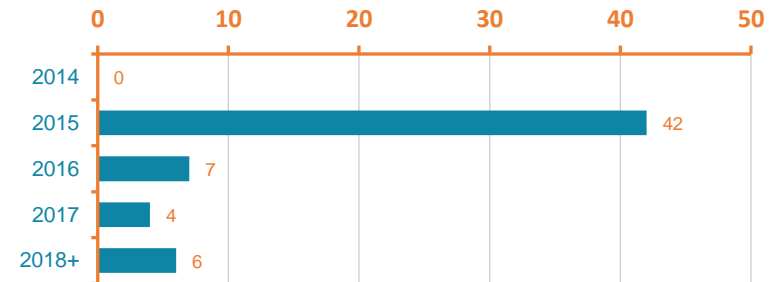


Once work starts, the average project takes around 18 months to become operational. Most, however have on-going operational requirements for much longer.

Projects by Reported Completion Date (June 2015)

	Number of Projects	Value (US\$ millions)
Q1 2014	0	-
Q2 2014	0	-
Q3 2014	0	-
Q4 2014	0	-
Q1 2015	1	-
Q2 2015	26	223.4
Q3 2015	4	28.0
Q4 2015	11	27.7
Q1 2016	3	24.0
Q2 2016	3	-
Q3 2016	0	-
Q4 2016	1	-
Q1 2017	1	68.7
Q2 2017	2	231.4
Q3 2017	0	-
Q4 2017	1	-
2018+	6	419.8

Projects By Reported Year of Completion



Values By Reported Year of Completion (US\$m)

