

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 February 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.

The last section lists all the new projects for the reported month. The table gives summary data, but to gain the full information on an individual entry, just click the Business Finder web link on the right hand side of the page. This will take you to our web-based database.

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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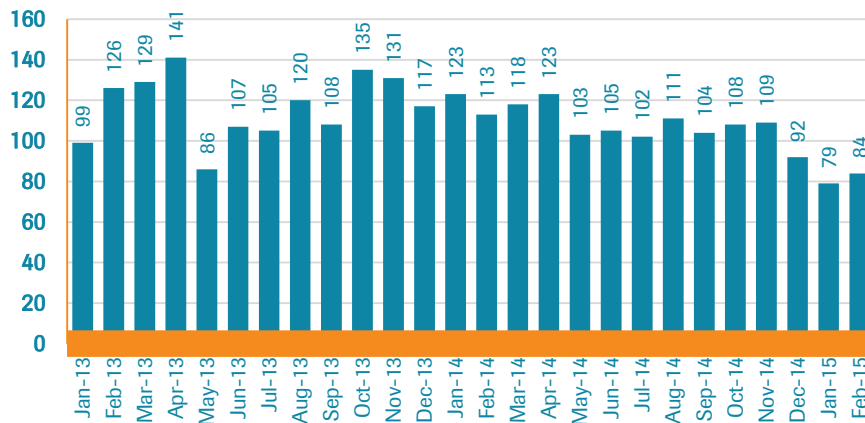
Projects This Month: February 2015

Overview

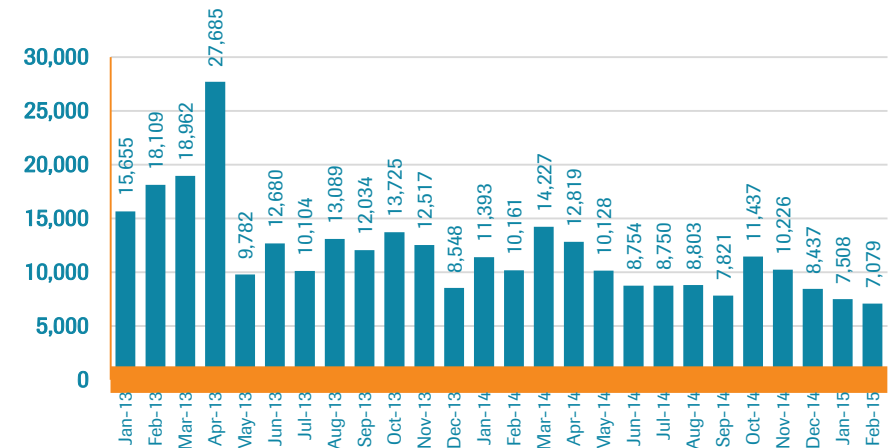
AcuComm reported on 84 new waste projects in February 2015. This takes the annual number (since March 2014) to 1,238, and the total overall since January 2013 to 2,878.

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

Number of Projects by Month



Estimated Total Value of Projects (US\$m)



The total estimated value of these projects is US\$7,079 million. This takes the total estimated value of projects reported since March 2014 to US\$115,990 million. The average estimated value of a waste project over this period is US\$93 million.



Incineration with energy recovery projects form the largest number in February 2015, accounting for 25, or 29.8% of the total. This was followed by recycling projects (14 projects, or 16.7%) and biofuel (13 projects, or 15.5%).



Incineration with energy recovery is also the leading facility type by estimated value, at US\$1,918 million, or 27.1% of the total. This was followed by biofuel with US\$1,534 million, or 21.7% of the total, and recycling with US\$691 million, or 9.8%.

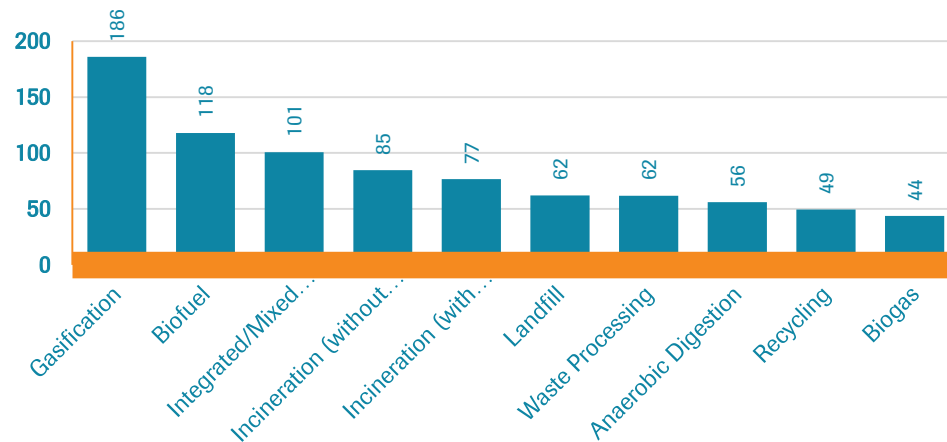
Latest Monthly Projects by Facility Type (February 2015)

	Projects	With Value (US\$m)	Reported Value	Total Estimated Value	Average value
Anaerobic Digestion	4	1	5	224	56
Biofuel	13	4	205	1,534	118
Biogas	9	6	119	394	44
Gasification	2	0	0	372	186
Incineration (energy recovery)	25	12	370	1,918	77
Incineration (no energy recovery)	1	0	0		
Integrated Facilities (IWMF)	2	1	45	201	101
Landfill	5	3	6	310	62
MBT	0	0	0	0	-
Recycling	14	5	21	691	49
Waste Processing	7	3	20	432	62
Others	2	0	0	920	460
Total	84	35	790	7,079	84

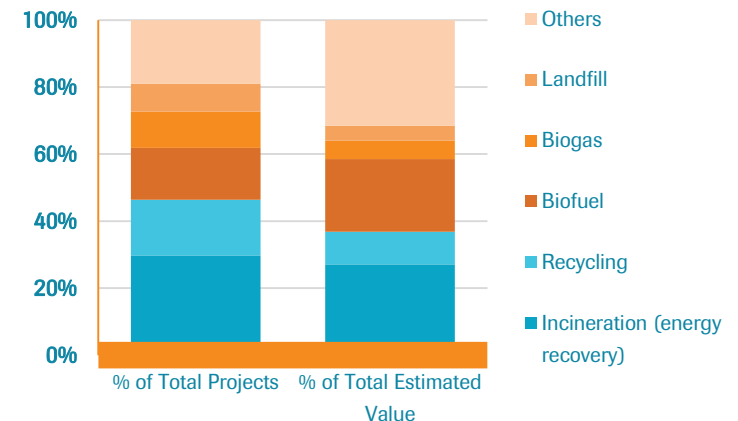
Latest Monthly Projects by Facility Type % of Total (February 2015)

	% of Total Projects	% of Total Estimated Value
Anaerobic Digestion	4.8	3.2
Biofuel	15.5	21.7
Biogas	10.7	5.6
Gasification	2.4	5.2
Incineration (energy recovery)	29.8	27.1
Integrated Facilities (IWMF)	2.4	2.8
Landfill	6.0	4.4
MBT	0.0	0.0
Recycling	16.7	9.8
Waste Processing	8.3	6.1
Others	2.4	13.0
Total	100.0	100.0

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



Projects By Facility Type, Feb 2015



In terms of waste feedstock type, municipal solid waste (MSW) was the leading category in February 2015. MSW accounted for 25 projects (29.8% of the total) with an estimated value of US\$1,902 million (26.9% of the total).



Wood and other biomass were the other principal feedstocks in February 2015. Wood accounted for 21 projects, with an estimated value of US\$1,475 million, while other plant biomass accounted for 14 projects, equal to US\$1,381 million.



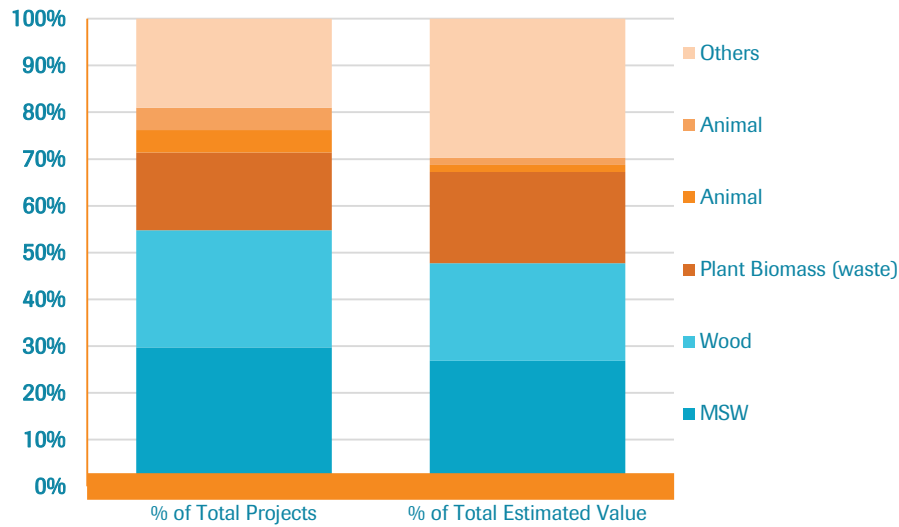
Latest Monthly Projects by Feedstock Type (February 2015)

	Projects	With Value (US\$m)	Reported Value (US\$m)	Total Estimated Value	Average value (US\$m)
Animal	4	3	58		
Clinical	1	0	0	85	85
Construction/Demolition	3	2	7	42	14
e-Waste	0	0	0	0	-
Food	1	0	0	22	22
Gas	2	1	0	200	100
Glass	0	0	0	0	-
Hazardous	0	0	0	0	-
Heat	0	0	0	0	-
Industrial	1	0	0	155	155
Metals	1	0	0	50	50
MSW	25	11	189	1,902	76
Oil	0	0	0	0	-
Organic (general/unspecified)	4	3	206	334	83
Paper	1	0	0	72	72
Plant Biomass (non-waste)	0	0	0	0	-
Plant Biomass (waste)	14	4	160	1,381	99
Plastics	3	0	0	255	85
Radioactive	1	0	0	646	646
Rubber	0	0	0	0	-
Sewage/wastewater	1	0	0	274	274
Wood	21	11	170	1,475	70
Other	1	0	0	79	79
Total	84	35	790	7,079	84

Latest Monthly Projects by Feedstock Type (% of Total)

	% of Total Projects	% of Total Estimated Value
Clinical	1.2	1.2
Construction/Demolition	3.6	0.6
e-Waste	0.0	0.0
Food	1.2	0.3
Gas	2.4	2.8
Glass	0.0	0.0
Hazardous	0.0	0.0
Heat	0.0	0.0
Industrial	1.2	2.2
Metals	1.2	0.7
MSW	29.8	26.9
Oil	0.0	0.0
Organic (general/unspecified)	4.8	4.7
Paper	1.2	1.0
Plant Biomass (non-waste)	0.0	0.0
Plant Biomass (waste)	16.7	19.5
Plastics	3.6	3.6
Radioactive	1.2	9.1
Rubber	0.0	0.0
Sewage/wastewater	1.2	3.9
Wood	25.0	20.8
Other	1.2	1.1
Total	100.0	100.0

Projects By Feedstock Type, February 2015



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



Latest Monthly Capacity

Of the 84 projects listed in February 2015, 19 also reported an annual waste capacity. This amounted to 1.7 million tonnes, equal to an average of 90,996 tonnes per project, and an average of 284 tonnes per day per project.



WtE incineration was the largest facility type in terms of capacity, amounting to 1.2 million tonnes, or 71.4% of the total. This was followed by waste processing with 0.2 million tonnes (12.0%) and recycling with just over 0.1 million tonnes (8.0%).

WtE incineration projects represented over 70% of reported new or planned waste project capacity in February 2015.

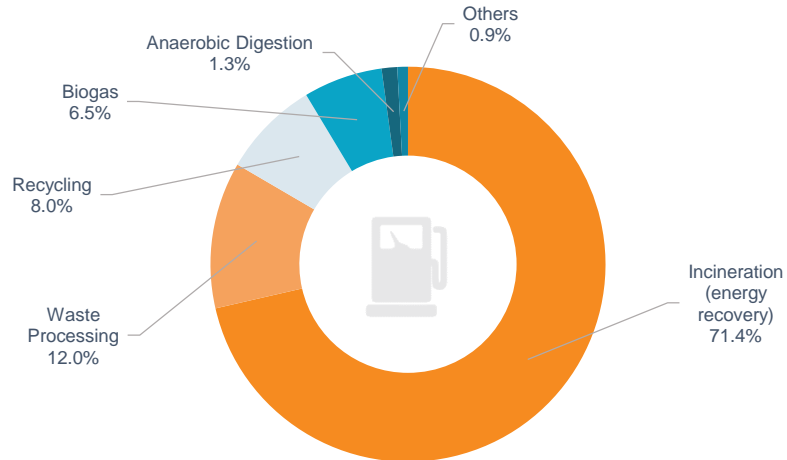
Reported Waste Capacity of Projects Listed by Facility Type (February 2015)

	Projects	With Reported Capacity	Reported Annual Capacity (tonnes)	Average Annual Capacity (tonnes)	Average Tonnes Per Day
Anaerobic Digestion	4	2	22,000	11,000	34
Biofuel	13	0	0	-	-
Biogas	9	2	112,000	56,000	175
Gasification	2	1	995	995	3
Incineration (energy recovery)	25	7	1,234,618	176,374	551
Incineration (no energy recovery)	1	0	0	-	-
Integrated Facilities (IWMF)	2	0	0	-	-
Landfill	5	1	14,000	14,000	44
MBT	0	0	0	-	-
Recycling	14	4	137,732	34,433	108
Waste Processing	7	2	207,575	103,788	324
Others	2	0	0	-	-
Total	84	19	1,728,920	90,996	284

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

	% of Total Reported Capacity
Anaerobic Digestion	1.3
Biofuel	0.0
Biogas	6.5
Gasification	0.1
Incineration (energy recovery)	71.4
Incineration (no energy recovery)	0.0
Integrated Facilities (IWMF)	0.0
Landfill	0.8
MBT	0.0
Recycling	8.0
Waste Processing	12.0
Others	0.0
Total	100.0

% Capacity by Facility Type, February 2015



Project capacity was dominated by WtE incineration in February 2015, largely due to two major new plants announced in China.



Municipal solid waste accounted for 1.0 million tonnes of capacity in February 2015, equal to 58.6% of the total, and an average of 352 tonnes per project per day. The other major feedstock categories were waste biomass and construction/demolition, accounting for 0.3 million and 0.1 million respectively.



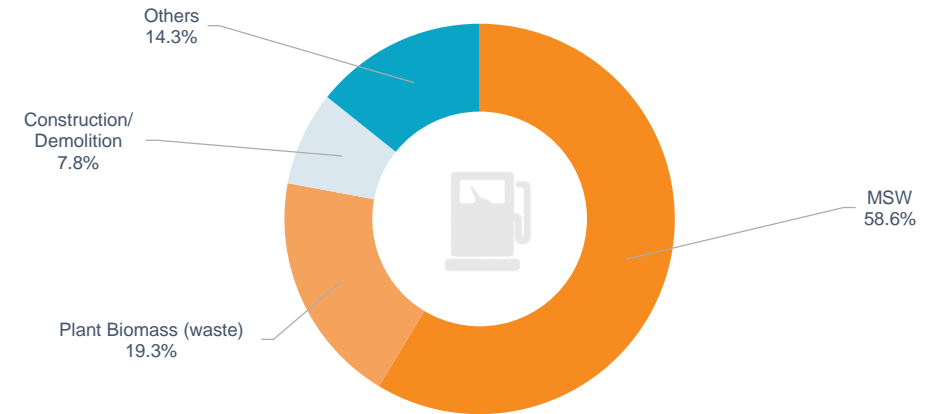
Latest Monthly Projects by Feedstock Type (February 2015)

	Projects	With Reported Capacity	Annual Capacity (tonnes)	Average Annual Capacity (tonnes)	Average Tonnes Per Day
Animal	4	0	0	-	-
Clinical	1	0	0	-	-
Construction/Demolition	3	1	135,000	135,000	422
e-Waste	0	0	0	-	-
Food	1	0	0	-	-
Gas	2	0	0	-	-
Glass	0	0	0	-	-
Hazardous	0	0	0	-	-
Heat	0	0	0	-	-
Industrial	1	0	0	-	-
Metals	1	0	0	-	-
MSW	25	9	1,013,385	112,598	352
Oil	0	0	0	-	-
Organic (general/unspecified)	4	1	72,575	72,575	227
Paper	1	1	87,600	87,600	274
Plant Biomass (non-waste)	0	0	0	-	-
Plant Biomass (waste)	14	5	334,000	66,800	209
Plastics	3	1	360	360	1
Radioactive	1	0	0	-	-
Rubber	0	0	0	-	-
Sewage/wastewater	1	0	0	-	-
Wood	21	1	86,000	86,000	269
Other	1	0	0	-	-
Total	84	19	1,728,920	90,996	284

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

	Capacity as % of Total
Animal	-
Clinical	-
Construction/Demolition	7.8
e-Waste	-
Food	-
Gas	-
Glass	-
Hazardous	-
Heat	-
Industrial	-
Metals	-
MSW	58.6
Oil	-
Organic (general/unspecified)	4.2
Paper	5.1
Plant Biomass (non-waste)	-
Plant Biomass (waste)	19.3
Plastics	0.0
Radioactive	-
Rubber	-
Sewage/wastewater	-
Wood	5.0
Other	-
Total	100.0

% Capacity by Feedstock, February 2015



Municipal Solid Waste accounted for nearly 60% of waste capacity in projects covered in the Business Finder database in February 2015.



Latest Power Generation

In February 2015, an estimate of annual power generation was available for 22 projects. This amounted to 358 MW in total. Almost all of this - 95.2% - was from WtE incineration projects, with the remainder coming from biogas, AD and landfill.

Incineration amounted to 15 projects with total reported generation of 341 MW, equal to 23 MW per plant. The most significant projects were two 35 MW biomass plants in Austria, due to be operational by the end of 2015.



WtE incineration dominated the reported power generation of projects in February 2015.

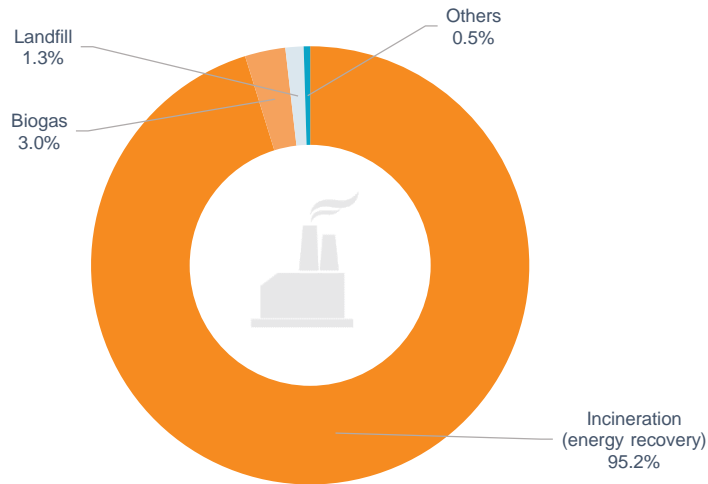
Reported Power Generation of Projects Listed by Facility Type (February 2015)

	Projects	With Reported MW Generation	Reported Annual MW Generation	Average MW Generation
Anaerobic Digestion	4	2	1	0
Biofuel	13	0	0	-
Biogas	9	3	11	4
Gasification	2	0	0	-
Incineration (energy recovery)	25	15	341	23
Incineration (no energy recovery)	1	0	0	-
Integrated Facilities (IWMF)	2	0	0	-
Landfill	5	1	5	5
MBT	0	0	0	-
Recycling	14	0	0	-
Waste Processing	7	1	1	1
Others	2	0	0	-
Total	84	22	358	16

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

	% of Total Projects
Anaerobic Digestion	0.2
Biofuel	-
Biogas	3.0
Gasification	-
Incineration (energy recovery)	95.2
Incineration (no energy recovery)	-
Integrated Facilities (IWMF)	-
Landfill	1.3
MBT	-
Recycling	-
Waste Processing	0.3
Others	-
Total	100.0

% MW Generation by Facility Type, Feb 2015



In February 2015, almost all the reported power generation was through biomass in one form or another. Wood accounted for 236 MW, while waste plant biomass accounted for 32 MW and other/unspecified organic material for 81 MW. Only one of the 25 MSW projects reported a power output, so the figure of 3 MW is not representative.



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

	Projects	With Reported MW Generation	Reported Annual MW Generation	Average MW Generation
Animal	4	1	1	1
Clinical	1	0	0	-
Construction/Demolition	3	0	0	-
e-Waste	0	0	0	-
Food	1	0	0	-
Gas	2	1	5	5
Glass	0	0	0	-
Hazardous	0	0	0	-
Heat	0	0	0	-
Industrial	1	0	0	-
Metals	1	0	0	-
MSW	25	1	3	3
Oil	0	0	0	-
Organic (general/unspecified)	4	3	81	27
Paper	1	0	0	-
Plant Biomass (non-waste)	0	0	0	-
Plant Biomass (waste)	14	6	32	5
Plastics	3	0	0	-
Radioactive	1	0	0	-
Rubber	0	0	0	-
Sewage/wastewater	1	0	0	-
Wood	21	10	236	24
Other	1	0	0	-
Total	84	22	358	16

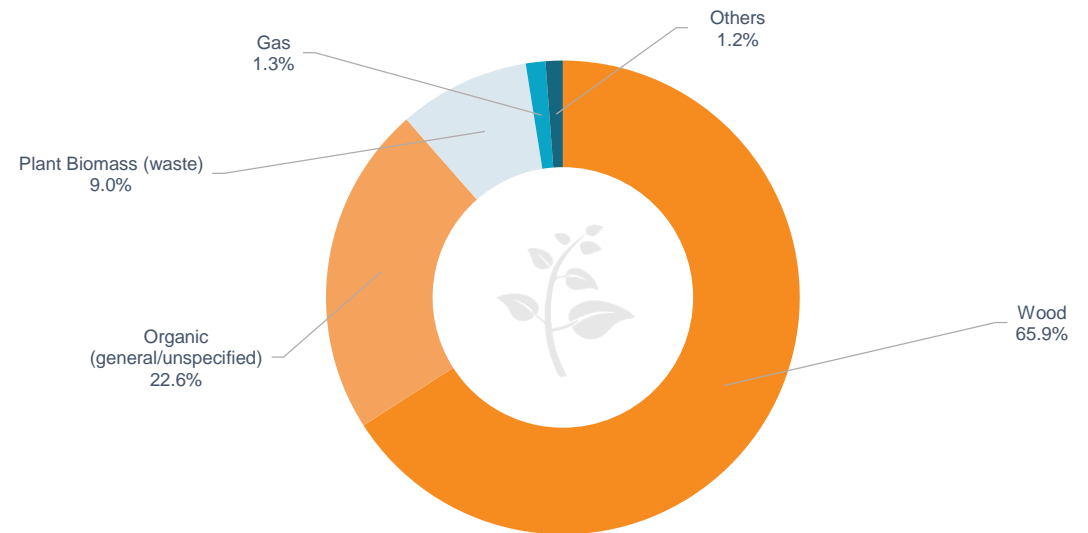
Latest Reported Power Generation by Feedstock Type, % of Total (February 2015)

	MW Generation as % of Total
Animal	0.3
Clinical	-
Construction/Demolition	-
e-Waste	-
Food	-
Gas	1.3
Glass	-
Hazardous	-
Heat	-
Industrial	-
Metals	-
MSW	0.8
Oil	-
Organic (general/unspecified)	22.6
Paper	-
Plant Biomass (non-waste)	-
Plant Biomass (waste)	9.0
Plastics	-
Radioactive	-
Rubber	-
Sewage/wastewater	-
Wood	65.9
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, February 2015



Latest Country Focus

The USA was the leading country in terms of projects reported in February 2015, with 21, equal to 25.0% of the total. This was followed by the UK with seven and Germany with five.

In terms of reported value, the USA was also the leader, with US\$249 million or 31.5% of the total. This was followed by Austria with US\$130 million or 16.4%.



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

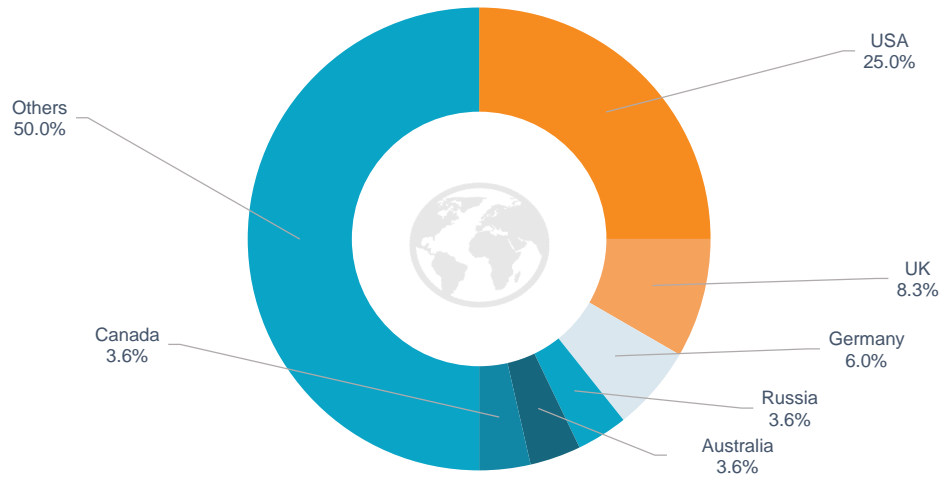
Top Ten Countries (number of projects listed), February 2015

	Projects	% of Total
USA	21	25.0
UK	7	8.3
Germany	5	6.0
Russia	3	3.6
Australia	3	3.6
Canada	3	3.6
Finland	3	3.6
Norway	3	3.6
France	3	3.6
Spain	3	3.6
Subtotal	54	64.3
Others	30	35.7
Total	84	100.0

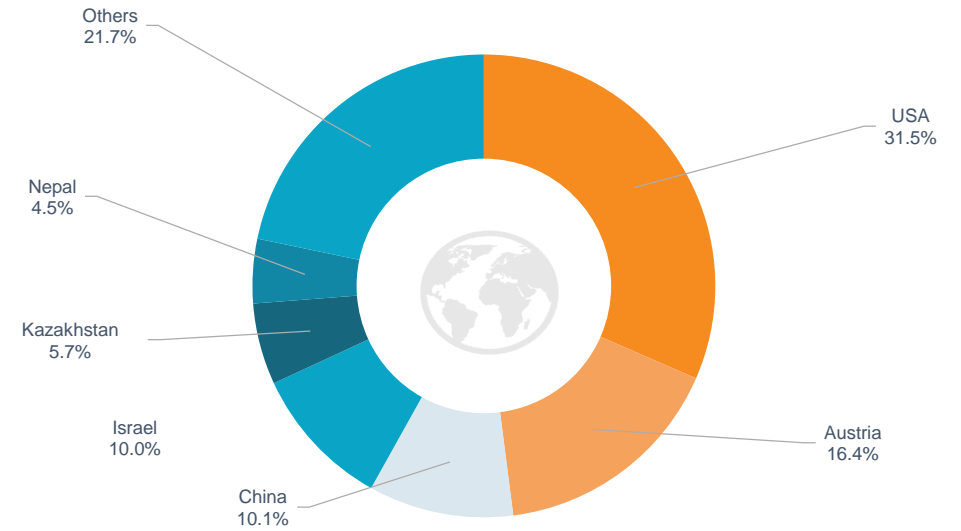
Top Ten Countries (value of projects listed), February 2015

	US\$ millions	% of Total
USA	249	31.5
Austria	130	16.4
China	80	10.1
Israel	79	10.0
Kazakhstan	45	5.7
Nepal	36	4.5
France	31	3.9
Spain	30	3.8
Germany	28	3.6
Dominican Republic	24	3.0
Subtotal	731	92.6
Others	59	7.4
Total	790	100.0

Leading Countries, Number of Projects, February 2015



Leading Countries, Value of Projects, February 2015



Completion Date Focus

Of the 84 projects reported on in February 2015, 45 give an indication of their likely completion date. There are 32 projects due to complete by the end of 2015, with a combined reported value of US\$244 million. A further four projects are due to complete during 2016, and a further four in 2017 or beyond.

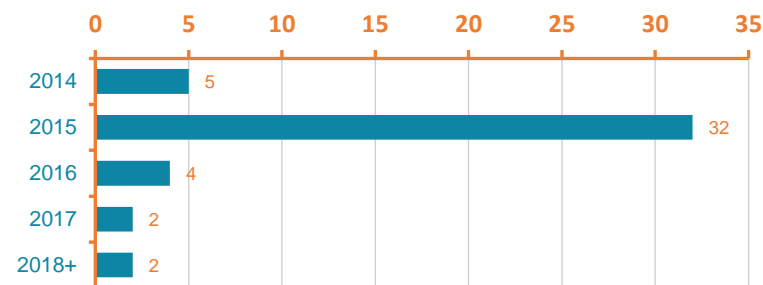


Once work starts, the average project takes around 18 months to complete. Most, however have on-going operational requirements for much longer.

Projects by Reported Completion Date (February 2015)

	Number of Projects	Value (US\$ millions)
Q1 2014	0	-
Q2 2014	0	-
Q3 2014	0	-
Q4 2014	5	31.7
Q1 2015	16	49.0
Q2 2015	5	29.4
Q3 2015	3	26.7
Q4 2015	8	138.7
Q1 2016	1	3.9
Q2 2016	0	-
Q3 2016	2	180.0
Q4 2016	1	-
Q1 2017	1	-
Q2 2017	0	-
Q3 2017	1	10.0
Q4 2017	0	-
2018+	2	35.5

Projects By Reported Year of Completion



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

