



AD/Biogas New Investment Update

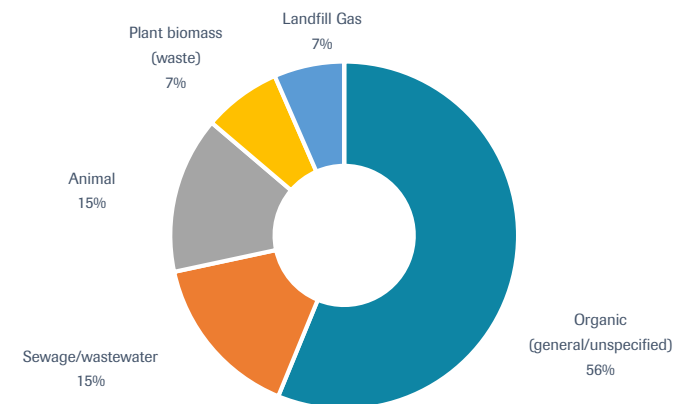
AcuComm reported on ten new anaerobic digestion/biogas or landfill gas projects in October 2018.

These have a combined value of US\$234 million. Estimated annual feedstock tonnage is 679,173 tonnes, and power output is 42 MW, equal to an average of 212 tonnes per day and 4 MW per project.

Organic (general/unspecified) was the leading feedstock type for projects reported this month, accounting for US\$132 million, equal to 56% of the total.

France was the leading country in October 2018, accounting for one project with a total value of US\$68 million.

Project Values by Feedstock Type (October 2018)



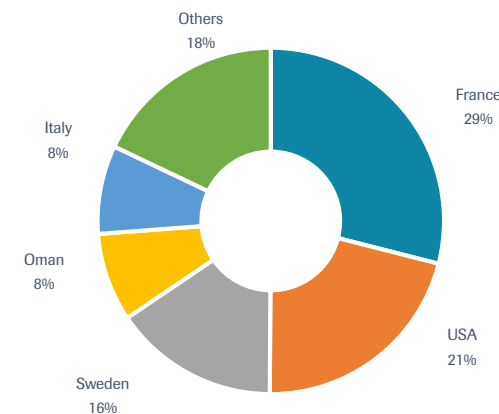
Source: AcuComm database, 31st October 2018

New AD/Biogas Projects Reported in October 2018

Project Description	Principal Waste Type	Location
Construction of a biogas plant.	Organic (general/unspecified)	Muscat, North and South Al Batinah, Oman
Development of a renewable natural gas production facility.	Gas	Bethlehem, NH, USA
Construction of an organic waste Kompogas plant.	Organic (general/unspecified)	Anröchte, Germany
Development of bioenergy plants.	Organic (general/unspecified)	Porto Marghera, Venice, Italy
Development of a biogas plant at paper mill.	Sewage/wastewater	Nymölla, Sweden
Construction of 20 biogas plants.	Organic (general/unspecified)	Shanxi Province, China
Construction of a biogas plant.	Animal	Stantonsburg, NC, USA
Construction of a biogas plant.	Animal	Spring Hope, NC, USA
Construction of a 6 MW biogas plant.	Plant biomass (waste)	Kirovohrad Oblast, Ukraine
Development of a biogas plant.	Organic (general/unspecified)	Labessière-Candeil, Tarn, France

Source: AcuComm database, 31st October 2018. Click the project description for more information on each project.

Leading Countries by Value (October 2018)



Source: AcuComm database, 31st October 2018



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This brings the total for the twelve month period (ended October 2018) to 155 projects, worth US\$3,454 million or US\$22 million each on average.

Total feedstock capacity for these projects is 9,330 million tonnes, equal to 60,195 tonnes on average and 188 tonnes per day per project.

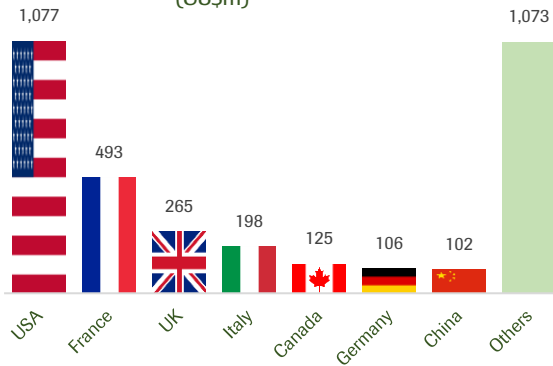
Total power generation is 563 MW, equal to 4 MW per project.

All AD/Biogas/Landfill Gas Projects Reported by Feedstock Type (November 2017 to October 2018)

	Projects	Value (US\$m)	Average Value (US\$m)	Capacity (tonnes)	Average Capacity (tonnes)	TPD	Power (MW)	Average Power (MW)
Animal	36	578	16	4,134,021	114,834	359	123	3
Food	16	266	17	845,343	52,834	165	36	2
MSW	2	51	25	157,142	78,571	246	3	1
Organic (general/unspecified)	31	577	19	1,767,353	57,011	178	90	3
Plant biomass (waste)	20	256	13	1,007,149	50,357	157	82	4
Plant biomass (non-waste)	4	38	10	189,699	47,425	148	10	2
Sewage/wastewater	35	1,459	42	1,229,486	35,128	110	119	3
Wood	-	-	-	-	-	-	-	-
Landfill Gas	11	228	21	n/a	n/a	n/a	102	9
Total	155	3,454	22	9,330,193	60,195	188	563	4

Source: AcuComm database, 31st October 2018. See www.acucomm.net for more details

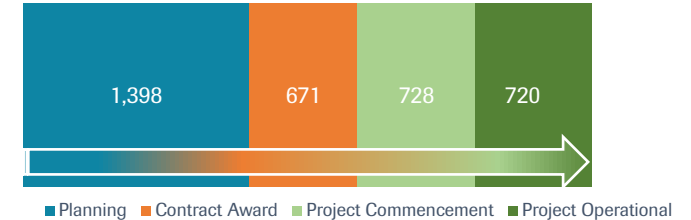
Leading Countries for AD/Biogas Investment (US\$m)



Source: AcuComm database, 31st October 2018. Opportunities exist across the world. In the last twelve months, the USA has accounted for US\$1,077 million or 31% of the total. The European market accounts for US\$1,523 million or 43%. Leading European markets are Denmark, France, Germany, France, the Netherlands and the UK.

Investments worth US\$720 million (20%) are operational, while US\$728 million (21%) are under construction. The largest proportion are in various stages of planning/contract award, at US\$2,069 million or 59% of the total.

Recent Project Values by Operational Stage (US\$m)



The heatmap to the right displays the locations of all the AD/Biogas projects currently held in the AcuComm database since 2012, where a location is known. The darker the colour the greater the overall level of investment.