



AD/Biogas New Investment Update

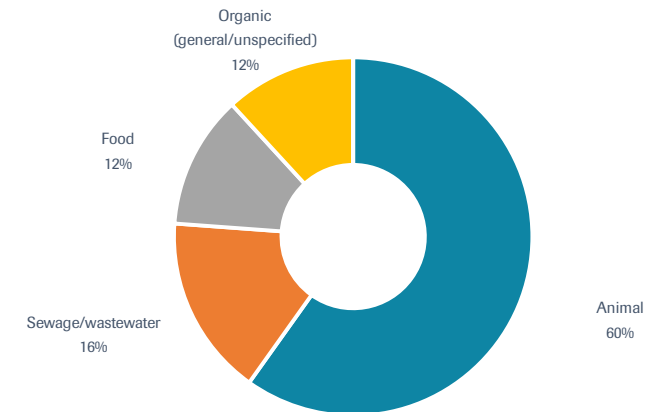
AcuComm reported on 11 new anaerobic digestion/biogas or landfill gas projects in March 2019.

These have a combined value of US\$468 million. Estimated annual feedstock tonnage is 1,913,851 tonnes, and power output is 56 MW, equal to an average of 544 tonnes per day and 5 MW per project.

Animal was the leading feedstock type for projects reported this month, accounting for US\$280 million, equal to 60% of the total.

The USA was the leading country in March 2019, accounting for eight projects with a total value of US\$356 million.

Project Values by Feedstock Type (March 2019)



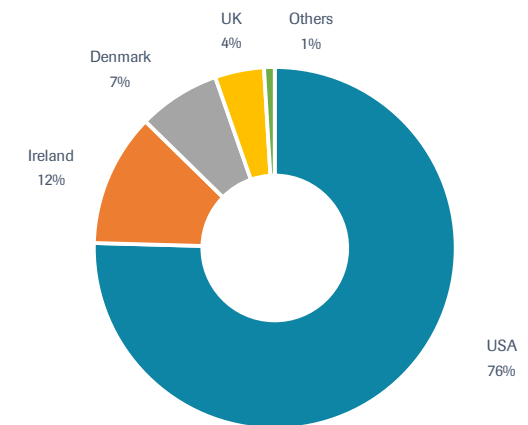
Source: AcuComm database, 31st March 2019

New AD/Biogas Projects Reported in March 2019

Project Description	Principal Waste Type	Location
Development of a water recycling and anaerobic digester plant.	Sewage/wastewater	Santee, CA, USA
Construction of a biogas-to-grid facility.	Organic (general/unspecified)	Northern Scotland, UK
Development of 15-20 biogas plants.	Organic (general/unspecified)	Various, Denmark
Construction of a biogas plant.	Animal	Bladenboro, NC, USA
Construction of a biogas plant.	Animal	Winnabow, NC, USA
Construction of a biogas plant.	Animal	Triplett, MO, USA
Construction of a biogas plant.	Animal	Laddonia, MO, USA
Construction of a biogas plant.	Animal	Tuscumbia, MO, USA
Construction of a biogas plant.	Animal	Mexico, MO, USA
Construction of a biogas plant.	Animal	Laddonia, MO, USA
Construction of a 4.9MW anaerobic digestion facility.	Food	Huntstown, Finglas, Co. Dublin, Ireland

Source: AcuComm database, 31st March 2019. Click the project description for more information on each project.

Leading Countries by Value (March 2019)



Source: AcuComm database, 31st March 2019



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This brings the total for the twelve month period (ended March 2019) to 148 projects, worth US\$3,634 million or US\$25 million each on average.

Total feedstock capacity for these projects is 12,023 million tonnes, equal to 81,239 tonnes on average and 254 tonnes per day per project.

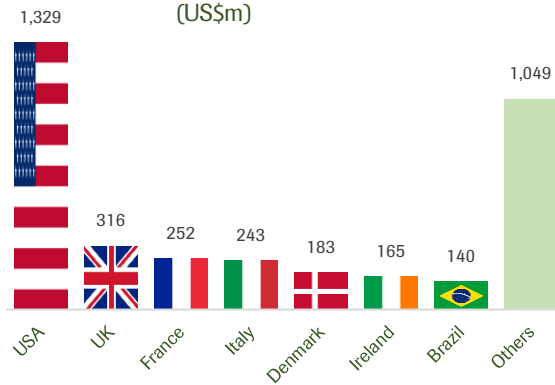
Total power generation is 570 MW, equal to 4 MW per project.

All AD/Biogas/Landfill Gas Projects Reported by Feedstock Type (April 2018 to March 2019)

	Projects	Value (US\$m)	Average Value (US\$m)	Capacity (tonnes)	Average Capacity (tonnes)	TPD	Power (MW)	Average Power (MW)
Animal	41	1,046	26	7,146,994	174,317	545	174	4
Food	9	260	29	708,780	78,753	246	28	3
MSW	1	35	35	49,800	49,800	156	3	3
Organic (general/unspecified)	33	734	22	2,133,214	64,643	202	109	3
Plant biomass (waste)	20	267	13	955,346	47,767	149	103	5
Plant biomass (non-waste)	4	42	11	205,342	51,336	160	11	3
Sewage/wastewater	28	1,100	39	823,849	29,423	92	72	3
Wood	-	-	-	-	-	-	-	-
Landfill Gas	12	149	12	n/a	n/a	n/a	69	6
Total	148	3,634	25	12,023,327	81,239	254	570	4

Source: AcuComm database, 31st March 2019. See www.acucomm.net for more details

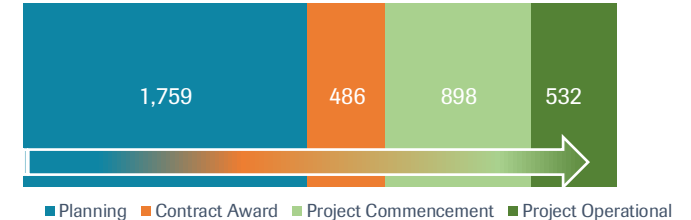
Leading Countries for AD/Biogas Investment (US\$m)



Source: AcuComm database, 31st March 2019. Opportunities exist across the world. In the last twelve months, the USA has accounted for US\$1,329 million or 36% of the total. The European market accounts for US\$1,590 million or 43%. Leading European markets are Denmark, France, Germany, France, the Netherlands and the UK.

Investments worth US\$532 million (14%) are operational, while US\$898 million (24%) are under construction. The largest proportion are in various stages of planning/contract award, at US\$2,246 million or 61% 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.