

Reference list  
- Energy crops with and without manure -

Biogas Plant	Location	Year	Input	Digester	Co-generator	Features	Responsibility
<b>Biogas Plant SZEPIETOWO</b>	Poland	2014/15	Rye silage, corn silage, silage grass, sugar beet pulp silage, waste pulp potatoes, fruit pomace	Glas coated steel tank 5,000 m <sup>3</sup>	Gas engine 1.2 MWel	Agricultural biogas plant: 1 digester, 1 secondary digester with gas holder roof, 1 storage tank, external heating, thermophilic operation	Basic evaluation, pre-, draft- and execution planning, tendering, participating in contract awarding process, site management/project controlling, start-up, schooling of operators
<b>Biogas Plant WARLE (Expansion)</b>	Germany	2014	Pig manure, corn silage, turkey dung	Concrete tank 2,450 m <sup>3</sup>	Gas engine 1 x 205 kWel 1 x 400 kWel (existing on site)	Improvement of an existing agricultural biogas plant and expansion by 1 storage tank	Basic evaluation, pre-, draft-, approval and execution planning, tendering, participating in contract awarding process, site management/project controlling, local construction supervision, start-up, schooling of operators
<b>Biogas Plant GUT ALTENHOF (Expansion)</b>	Germany	2014	Corn silage, wheat silage, grass silage	Concrete tank 1,470 m <sup>3</sup>	Gas engine 365 kWel	Expansion of an existing agricultural biogas plant by co-generator, long distance heat pipes, new heat distribution system	Basic evaluation, pre-, draft-, approval and execution planning, tendering, participating in contract awarding process, site management/project controlling, start-up, schooling of operators
<b>Biogas Plant SÖDER (Expansion)</b>	Germany	2013/14	Corn silage, pig manure	Concrete tank 2 x 1,800 m <sup>3</sup>	Gas engine 716 kWel	Expansion of an agricultural biogas plant by 2 digestate storage tanks	Basic evaluation, pre-, draft-, approval and execution planning, tendering, participating in contract awarding process, site management/project controlling, start-up, schooling of operators
<b>Biogas Plant RIO CUARTO</b>	Argentina	2013/14	Corn silage, cattle manure	Glas coated steel tank 4,580 m <sup>3</sup>	Gas engine 1,200 kWel	Agricultural biogas plant: 1 digester, 1 secondary digester with gas holder, thermophilic operation, heat utilisation, first biogas plant using energy crops in Argentina	Basic evaluation, pre-, draft- and execution planning, tendering, participating in contract awarding process, site management/project controlling, start-up, schooling of operators

Reference list  
- Energy crops with and without manure -

Biogas Plant	Location	Year	Input	Digester	Co-generator	Features	Responsibility
<b>Biogas Plant RIHA</b>	Germany	2012	Cattle manure, corn silage	Glas coated steel tank 1,500 m <sup>3</sup>	Gas engine 2 x 252 kWel	Agricultural biogas plant: 1 digester, 1 secondary digester with gas holder, 1 storage tank, mesophilic operation, heat utilisation	Basic evaluation, pre-, draft-, approval and execution planning, tendering, participating in contract awarding process, site management/project controlling, start-up
<b>Biogas Plant BASILIANO</b>	Italy	2012	Triticale silage and corn silage	Concrete tank 2,450 m <sup>3</sup>	Gas engine 625 kWel	Agricultural biogas plant: 1 digester, 1 secondary digester with gas holder, 1 storage tank, thermophilic operation, heat utilisation	Execution planning, tendering, participating in contract awarding process, site management/project controlling
<b>Biogas Plant DIETZ</b>	Germany	2012	Cattle manure, cattle dung, gras-, triticale- and corn silage	Concrete tank 2,600 m <sup>3</sup>	Gas engine 191 kWel	Agricultural biogas plant: 1 digester, 2 secondary digester with gas holder, 1 storage tank, mesophilic operation, heat utilisation	Basic evaluation, pre-, draft-, approval and execution planning, tendering, participating in contract awarding process, site management/project controlling, start-up
<b>Biogas Plant RUDA</b>	Italy	2012	Triticale- und corn silage	Concrete tank 4,970 m <sup>3</sup>	Gas engine 999 kWel	Agricultural biogas plant: 1 digester, 1 secondary digester with gas holder, 1 storage tank, thermophilic operation, heat utilisation	Execution planning, tendering, participating in contract awarding process, site management/project controlling
<b>Biogas Plant HOTTELN (Expansion)</b>	Germany	2012	Corn silage	Concrete tanks 1 x 2,160 m <sup>3</sup> 1 x 2,950 m <sup>3</sup>	Gas engine 536 kWel  Gas engine 2 x 250 kWel	Expansion of an agricultural biogas plant by 1 digester, 2 gas engines, conversion of a secondary digester in a digester, bigger size solid input device	Basic evaluation, pre-, draft- and approval planning, additional consulting services

Reference list  
- Energy crops with and without manure -

Biogas Plant	Location	Year	Input	Digester	Co-generator	Features	Responsibility
<b>Biogas Plant MEZDRA</b>	Bulgaria	2012	Cattle manure, corn silage	Steel tank 2 x 4,580 m <sup>3</sup>	Gas engine 3 x 800 kWel	Agricultural biogas plant: 2 digester and 1 secondary digester with gas holder, thermophile operation	Basic evaluation, pre-, draft-, approval and execution planning, tendering, participating in contract awarding process, site management/project controlling, start-up
<b>Biogas Plant EICKHOFF (Expansion)</b>	Germany	2011	Corn silage	Concrete tank 2,160 m <sup>3</sup>	Gas engine 526 kWel 350 kWel	Expansion of an agricultural biogas plant by digester storage, satellite CHP	Basic evaluation, pre-, draft- and approval planning, additional consulting services
<b>Biogas Plant DECKER (Expansion)</b>	Germany	2011	Corn silage, whole-crop-silage	Concrete tank 1,360 m <sup>3</sup>	Gas engine 360 kWel 800 kWel	Expansion of an agricultural biogas plant: digester, storage tank, satellite CHP	Basic evaluation, pre-, draft- and approval planning, additional consulting services
<b>Biogas Plant TORRE SANTAMARIA</b>	Spain	2011	Cattle manure, corn silage	Concrete tank 2,100 m <sup>3</sup>	Gas engine 190 kWel	Agricultural biogas plant, gas holder above first digester, mesophilic operation	Basic evaluation, pre-, draft- and execution planning, tendering, participating in contract awarding process, start-up
<b>Biogas Plant OTTERBEIN</b>	Germany	2011	Pig manure, cattle dung, grass silage, corn silage, corn crop, whole crop silage, fodder mixture	Concrete tank 1,200 m <sup>3</sup>	Dual fuel co-generator 265 kWel (inkluding 30 kWel additional power of gas turbine)	Agricultural biogas plant: digester, secondary digester, digester storage, dual fuel engine with additional power of gas turbine, heat utilisation	Approval planning, technical advice for execution planning, final construction plans
<b>Biogas Plant NEIBETAL</b>	Germany	2010/11	Pig manure, pig dung, cattle dung, lucerne silage, corn silage, sugar beet	Glas coated steel tank 3,040 m <sup>3</sup>	Gas engine 716 kWel	Agricultural biogas plant: 1 digester, 1 secondary digester with gas holder, 1 storage tank, mesophilic operation, heat utilisation	Basic evaluation, pre-, draft-, approval and execution planning, tendering, participating in contract awarding process, site management/project controlling, start-up

Reference list  
- Energy crops with and without manure -

Biogas Plant	Location	Year	Input	Digester	Co-generator	Features	Responsibility
<b>Biogas Plant ADENSEN (Expansion)</b>	Germany	2010	Corn silage	Concrete tank 2,400 m <sup>3</sup>	Gas engine 400 kWel	Expansion of a biogas plant: co-generator, digester and secondary digester	Basic evaluation, approval planning, additional consulting services
<b>Biogas Plant FORCATE</b>	Italy	2010	Grass-, corn silage	Concrete tank 1,730 m <sup>3</sup>	Gas engine 365 kWel	Agricultural biogas plant: 1 digester, 1 secondary digester, separation, thermophilic operation	Basic evaluation, pre-, draft- and execution planning, tendering, participating in contract awarding process, site management/project controlling, start-up
<b>Biogas Plant SEMD</b>	Germany	2009/10	Corn silage	Prestressed concrete, prefabricated element tank 2,470 m <sup>3</sup>	biogas upgrading system, injektion into grid	Agricultural biogas plant: gas holder above digester, secondary digester and digestate storage tank, mesophilic operation, biogas upgrading and injection into grid	Basic evaluation, pre-, draft- and execution planning, tendering, participating in contract awarding process, site management/project controlling
<b>Biogas Plant FALKENSTEIN</b>	Germany	2008	Corn silage, wheat silage, sweet sorghum	Glas coated steel tank 2 x 3,130 m <sup>3</sup>	Gas engine 2 x 716 kWel	Agricultural biogas plant: 2 digester, 2 secondary digester, thermophilic operation, heat utilisation	Basic evaluation, pre-, draft- and execution planning, tendering, participating in contract awarding process, site management/project controlling, start-up
<b>Biogas Plant LORSCH</b>	Germany	2008	Corn silage, cattle manure	Concrete tank 1,600 m <sup>3</sup>	Gas engine 370 kWel	Agricultural biogas plant: gas 1 digester, 1 secondary digester, 1 digestate storage tank, thermophilic operation, heat utilisation	Basic evaluation, pre-, draft-, approval and execution planning, tendering, participating in contract awarding process, site management/project controlling, start-up

Reference list  
- Energy crops with and without manure -

Biogas Plant	Location	Year	Input	Digester	Co-generator	Features	Responsibility
<b>Biogas Plant GUT ALTENHOF</b>	Germany	2007	Corn silage, wheat silage, grass silage	Concrete tank 1,470 m <sup>3</sup>	Gas engine 365 kWel	Agricultural biogas plant: 1 digester, 1 secondary digester, 1 digestate storage tank, thermophilic operation, heat utilisation	Basic evaluation, pre-, draft-, approval and execution planning, tendering, participating in contract awarding process, site management/project controlling, start-up
<b>Biogas Plant WEIß (Expansion)</b>	Germany	2006/07	Corn silage, grass silage, pig manure, cattle dung	Concrete tank 1,090 m <sup>3</sup>	Dual fuel co-generator, 250 kW	Expansion of the biogas plant	Basic evaluation, pre-, draft- and execution planning, tendering, participating in contract awarding process, site management/project controlling, start-up
<b>Biogas Plant WIESENAU II</b>	Germany	2007	Cattle manure, dung, wheat, corn silage	Glas coated steel tank 4,300 m <sup>3</sup>	Gas engine 2 x 526 kWel	Agricultural biogas plant: 1 digester, 1 secondary digester, 1 digestate storage tank, mesophilic operation	Basic evaluation, pre-, draft-, approval and execution planning, tendering, participating in contract awarding process, site management/project controlling, start-up
<b>Biogas Plant RIEDLINGEN</b>	Germany	2007	Cattle manure, corn silage, grass silage, crop silage	Glas coated steel tank 4,300 m <sup>3</sup>	Gas engine 2 x 526 kWel	Agricultural biogas plant: 1 digester, 1 secondary digester, heat recovery, thermophilic operation	Basic evaluation, pre-, draft-, approval and execution planning, tendering, participating in contract awarding process, site management/project controlling, start-up
<b>Biogas Plant AMELN</b>	Germany	2006	Corn silage, wheat silage	Glas coated steel tank 2,560 m <sup>3</sup>	Gas engine 650 kWel	Agricultural biogas plant: 1 digester, 1 secondary digester, heat utilisation, thermophilic operation	Basic evaluation, pre-, draft-, approval and execution planning, tendering, participating in contract awarding process, site management/project controlling, start-up

Reference list  
- Energy crops with and without manure -

Biogas Plant	Location	Year	Input	Digester	Co-generator	Features	Responsibility
<b>Biogas Plant SCHENK</b>	Germany	2006	Corn silage, grass silage, wheat silage	Concrete tank 790 m <sup>3</sup>	Gas engine 190 kWel	Agricultural biogas plant: 1 digester, 1 secondary digester, 1 digestate storage tank, heat utilisation, thermophilic operation	Basic evaluation, pre-, draft-, approval and execution planning, tendering, participating in contract awarding process, site management/project controlling, start-up
<b>Biogas Plant THANNER</b>	Germany	2006	Corn silage, grass silage, wheat silage	Concrete tank 1,360 m <sup>3</sup>	Gas engine 350 kWel	Agricultural biogas plant: 1 digester, 1 secondary digester, 1 digestate storage tank, thermophilic operation	Basic evaluation, pre-, draft-, approval and execution planning, tendering, participating in contract awarding process, site management/project controlling, start-up
<b>Biogas Plant BAILER</b>	Germany	2006	Corn silage, wheat silage	Concrete tank 790 m <sup>3</sup>	Gas engine 191 kWel	Agricultural biogas plant: 1 digester, 1 secondary digester, heat utilisation, thermophilic operation	Basic evaluation, pre-, draft-, approval and execution planning, tendering, participating in contract awarding process, site management/project controlling, start-up
<b>Biogas Plant HOTTELN</b>	Germany	2006	Corn silage	Concrete tank 2,160 m <sup>3</sup>	Gas engine 536 kWel	Agricultural biogas plant: 1 digester, 1 secondary digester, heat utilisation, thermophilic operation	Basic evaluation, pre-, draft-, approval and execution planning, tendering, participating in contract awarding process, site management/project controlling, start-up
<b>Biogas Plant BUCHLOE</b>	Germany	2006	Corn silage, grass silage, wheat silage	Concrete tank 4,610 m <sup>3</sup>	Gas engine 2 x 526 kWel	Agricultural biogas plant: 1 digester, 1 secondary digester, 1 digestate storage tank, heat utilisation, thermophilic operation	Basic evaluation, pre-, draft-, approval and execution planning, tendering, participating in contract awarding process, site management/project controlling, start-up

Reference list  
- Energy crops with and without manure -

Biogas Plant	Location	Year	Input	Digester	Co-generator	Features	Responsibility
<b>Biogas Plant EICKHOFF</b>	Germany	2006	Corn silage	Concrete tank 2,160 m <sup>3</sup>	Gas engine 526 kWel	Agricultural biogas plant: 1 digester and gas holder above secondary digester, heat utilisation, thermophilic operation	Basic evaluation, pre-, draft-, approval and execution planning, tendering, participating in contract awarding process, site management/project controlling, start-up
<b>Biogas Plant SECHZEHN- EICHEN</b>	Germany	2007	Corn silage, grass silage, wheat silage	Concrete tank 2,160 m <sup>3</sup>	Gas engine 536 kWel	Agricultural biogas plant: 1 digester and gas holder above secondary digester, thermophilic operation	Basic evaluation, pre-, draft-, approval and execution planning, tendering, participating in contract awarding process, site management/project controlling, start-up
<b>Biogas Plant BAESWEILER</b>	Germany	2006	Corn silage, wheat silage	Concrete tank 2,160 m <sup>3</sup>	Gas engine 536 kWel	Agricultural biogas plant: 1 digester and gas holder above secondary digester, heat utilisation, thermophilic operation	Basic evaluation, pre-, draft-, approval and execution planning, tendering, participating in contract awarding process, site management/project controlling, start-up
<b>Biogas Plant ADENSEN</b>	Germany	2006	Corn silage	Concrete tank 1,360 m <sup>3</sup>	Gas engine 370 kWel	Agricultural biogas plant: 1 digester, 1 secondary digester, mesophilic operation	Basic evaluation, pre-, draft-, approval and execution planning, tendering, participating in contract awarding process, site management/project controlling, start-up
<b>Biogas Plant HORGAU</b>	Germany	2006	Corn silage, grass silage, wheat silage	Concrete tank 2,650 m <sup>3</sup>	Gas engine 536 kWel	Agricultural biogas plant: 1 digester, 1 secondary digester, 1 digestate storage tank, heat utilisation, thermophilic operation	Basic evaluation, pre-, draft-, approval and execution planning, tendering, participating in contract awarding process, site management/project controlling, start-up

Reference list  
- Energy crops with and without manure -

Biogas Plant	Location	Year	Input	Digester	Co-generator	Features	Responsibility
<b>Biogas Plant STÖLZLE</b>	Germany	2006	Corn silage, grass silage, wheat silage	Concrete tank 1,050 m <sup>3</sup>	Dual fuel co-generator 250 kWel	Agricultural biogas plant: 1 digester, 1 secondary digester, heat utilisation, thermophilic operation	Basic evaluation, pre-, draft-, approval and execution planning, tendering, participating in contract awarding process, site management/project controlling, start-up
<b>Biogas Plant WANGEN</b>	Germany	2006	Cattle manure, corn silage, grass silage	Concrete tank 2,560 m <sup>3</sup>	Gas engine 370 kWel dual fuel co-generator 250 kWel	Agricultural biogas plant: 1 digester, 1 secondary digester, 1 digestate storage tank, heat utilisation, thermophilic operation	Basic evaluation, pre-, draft-, approval and execution planning, tendering, participating in contract awarding process, site management/project controlling, start-up
<b>Biogas Plant PFEIFFER</b>	Germany	2005	Corn silage, grass silage, crop silage	Concrete tank 1,360 m <sup>3</sup>	Dual fuel co-generator 2 * 180 kWel	Agricultural biogas plant: 1 digester, 1 secondary digester, heat utilisation, thermophilic operation	Basic evaluation, pre-, draft-, approval and execution planning, tendering, participating in contract awarding process, site management/project controlling, start-up
<b>Biogas Plant HÖRNLE</b>	Germany	2005	Corn silage, grass silage, wheat silage	Concrete tank 710 m <sup>3</sup>	Gas engine 180 kWel	Agricultural biogas plant: 1 digester, 1 secondary digester, heat utilisation, thermophilic operation	Basic evaluation, pre-, draft-, approval and execution planning, tendering, participating in contract awarding process, site management/project controlling, start-up
<b>Biogas Plant DECKER</b>	Germany	2005	Corn silage, wheat silage	Concrete tank 1,360 m <sup>3</sup>	Gas engine 360 kWel	Agricultural biogas plant: 1 digester, 1 secondary digester, heat utilisation, thermophilic operation	Basic evaluation, pre-, draft-, approval and execution planning, tendering, participating in contract awarding process, site management/project controlling, start-up



Reference list  
- Energy crops with and without manure -

Biogas Plant	Location	Year	Input	Digester	Co-generator	Features	Responsibility
<b>Biogas Plant BUCHMANN</b>	Germany	2005	Corn silage, grass silage, wheat silage, pig manure	Concrete tank 570 m <sup>3</sup>	Gas engine 110 kWel	Agricultural biogas plant: 1 digester, 1 secondary digester, heat utilisation, mesophilic operation	Basic evaluation, pre-, draft-, approval and execution planning, tendering, participating in contract awarding process, site management/project controlling, start-up
<b>Biogas Plant MILLER</b>	Germany	2005	Clovergrass silage, corn silage	Concrete tank 1,470 m <sup>3</sup>	Gas engine 360 kWel	Agricultural biogas plant: 1 digester, 1 secondary digester, heat utilisation, thermophilic operation	Basic evaluation, pre-, draft-, approval and execution planning, tendering, participating in contract awarding process, site management/project controlling, start-up
<b>Biogas Plant NOOTBAAR</b>	Germany	2005	Corn silage	Concrete tank 950 m <sup>3</sup>	Dual fuel co- generator 2 x 110 kWel	Agricultural biogas plant: 1 digester, 1 secondary digester, heat utilisation, thermophilic operation	Basic evaluation, pre-, draft-, approval and execution planning, tendering, participating in contract awarding process, site management/project controlling, start-up
<b>Biogas Plant WEBER</b>	Germany	2005	Corn silage, grass silage, wheat silage	Concrete tank 790 m <sup>3</sup>	Gas engine 2 x 90 kWel	Agricultural biogas plant: 1 digester, 1 secondary digester, heat utilisation, thermophilic operation	Basic evaluation, pre-, draft-, approval and execution planning, tendering, participating in contract awarding process, site management/project controlling, start-up
<b>Biogas Plant EICHENHOFER</b>	Germany	2004/05	Corn silage, grass silage	Concrete tank 510 m <sup>3</sup>	Gas engine 125 kWel	Agricultural biogas plant: 1 digester, 1 secondary digester, heat utilisation, thermophilic operation	Basic evaluation, pre-, draft-, approval and execution planning, tendering, participating in contract awarding process, site management/project controlling, start-up

Reference list  
- Energy crops with and without manure -

Biogas Plant	Location	Year	Input	Digester	Co-generator	Features	Responsibility
<b>Biogas Plant WIESENAU</b>	Germany	2004/05	Cattle manure, cattle dung, corn silage, grass silage	Concrete tank 2,620 m <sup>3</sup>	Gas engine 526 kWel	Agricultural biogas plant: 1 digester and gas holder above secondary digester, heat utilisation, mesophilic operation	Basic evaluation, pre-, draft-, approval and execution planning, tendering, participating in contract awarding process, site management/project controlling, start-up
<b>Biogas Plant BÖCKERMANN II</b>	Germany	2004/05	Pig manure, corn silage	Glas coated steel tank 4,070 m <sup>3</sup>	Gas engine 2 x 536 kWel	Agricultural biogas plant: 1 digester, 1 secondary digester, heat utilisation, thermophilic operation	Basic evaluation, pre-, draft-, approval and execution planning, tendering, participating in contract awarding process, site management/project controlling, start-up
<b>Biogas Plant FAKLER</b>	Germany	2004/05	Corn silage, grass silage, wheat silage	Concrete tank 1,050 m <sup>3</sup>	Gas engine 250 kWel	Agricultural biogas plant: 1 digester, 1 secondary digester, heat utilisation, thermophilic operation	Basic evaluation, pre-, draft-, approval and execution planning, tendering, participating in contract awarding process, site management/project controlling, start-up
<b>Biogas Plant FREY</b>	Germany	2004/05	Corn silage, grass silage, wheat silage	Concrete tank 1,530 m <sup>3</sup>	Gas engine 330 kWel	Agricultural biogas plant: 1 digester, 1 secondary digester, heat utilisation, thermophilic operation	Basic evaluation, pre-, draft-, approval and execution planning, tendering, participating in contract awarding process, site management/project controlling, start-up
<b>Biogas Plant DOBLER</b>	Germany	2004/05	Corn silage, grass silage	Concrete tank 750 m <sup>3</sup>	Gas engine 2 x 90 kWel	Agricultural biogas plant: 1 digester, 1 secondary digester, heat utilisation, thermophilic operation	Basic evaluation, pre-, draft-, approval and execution planning, tendering, participating in contract awarding process, site management/project controlling, start-up

Reference list  
- Energy crops with and without manure -

Biogas Plant	Location	Year	Input	Digester	Co-generator	Features	Responsibility
<b>Biogas Plant KORNMAYER</b>	Germany	2004/05	Cattle manure, cattle dung, corn silage and grass cut	Concrete tank 620 m <sup>3</sup>	Dual fuel co-generator 40 kWel	Agricultural biogas plant: 1 digester, 1 secondary digester, heat utilisation, mesophilic operation	Basic evaluation, pre-, draft-, approval and execution planning, tendering, participating in contract awarding process, site management/project controlling, start-up
<b>Biogas Plant MENZ</b>	Germany	2004/05	Pig manure, cattle manure, corn and grass silage	Concrete tank 1,000 m <sup>3</sup>	Gas engine 250 kWel	Agricultural biogas plant: 1 digester, 1 secondary digester, heat utilisation, thermophilic operation	Basic evaluation, pre-, draft-, approval and execution planning, tendering, participating in contract awarding process, site management/project controlling, start-up
<b>Biogas Plant LEUTER</b>	Germany	2004/05	Pig manure, pig dung, corn and crop silage	Concrete tank 400 m <sup>3</sup>	Dual fuel co-generator 100 kWel	Agricultural biogas plant: 1 digester, 1 secondary digester, heat utilisation, thermophilic operation	Basic evaluation, pre-, draft-, approval and execution planning, tendering, participating in contract awarding process, site management/project controlling, start-up
<b>Biogas Plant BIOENERGIE HEHLEN</b>	Germany	2004/05	Corn silage	Concrete tank 2,000 m <sup>3</sup>	Gas engine 536 kWel	Agricultural biogas plant: 1 digester, 1 secondary digester, heat utilisation, thermophilic operation	Basic evaluation, pre-, draft-, approval and execution planning, tendering, participating in contract awarding process, site management/project controlling, start-up
<b>Biogas Plant NATURGAS HEHLEN</b>	Germany	2004/05	Corn silage	Concrete tank 2,000 m <sup>3</sup>	Gas engine 536 kWel	Agricultural biogas plant: 1 digester, 1 secondary digester, heat utilisation, thermophilic operation	Basic evaluation, pre-, draft-, approval and execution planning, tendering, participating in contract awarding process, site management/project controlling, start-up

Reference list  
- Energy crops with and without manure -

Biogas Plant	Location	Year	Input	Digester	Co-generator	Features	Responsibility
<b>Biogas Plant GRIMM + SCHÖNDIENST</b>	Germany	2004/05	Pig manure, energy crops, dung	Concrete tank 910 m <sup>3</sup>	Gas engine 2 x 100 kWel	Agricultural biogas plant: 1 digester, 1 secondary digester, heat utilisation, thermophilic operation	Basic evaluation, pre-, draft-, approval and execution planning, tendering, participating in contract awarding process, site management/project controlling, start-up
<b>Biogas Plant HOLLANDHOF</b>	Germany	2004	Pig dung, turkey dung, energy crops	Concrete tank 350 m <sup>3</sup>	Gas engine, 60 kWel	Agricultural biogas plant: 1 digester, 1 secondary digester, heat utilisation, thermophilic operation	Basic evaluation, pre-, draft- and execution planning, tendering, participating in contract awarding process, site management/project controlling, start-up
<b>Biogas Plant BIOENERGIE-DORF JÜHNDE</b>	Germany	2004	Manure, energy crops	Concrete tank 2,750 m <sup>3</sup>	Gas engine, 500 kWel	Agricultural biogas plant: 1 digester, 1 secondary digester, supply of local heat network	Basic evaluation, pre-, draft-, approval and execution planning, tendering, participating in contract awarding process
<b>Biogas Plant CUDWORTH PORK</b>	Saskatoon, Canada	2003	Manure, potatoes	Steel tank 2,000 m <sup>3</sup>	microgas tubine 4 x 30 kWel	Biogas plant digesting organic waste: 1 digester, 1 secondary digester	Basic evaluation, pre-, draft-, approval and execution planning, tendering, participating in contract awarding process, site management/project controlling, start-up
<b>Biogas Plant VAN GENNIP</b>	Germany	2003	Pig manure, fats, corn silage, dung	Steel tank 4,300 m <sup>3</sup>	Gas engines 167 kWel 2 x 344 kWel	Agricultural biogas plant: 1 digester, 1 secondary digester, heat utilisation	Basic evaluation, pre-, draft-, approval and execution planning, tendering, participating in contract awarding process, site management/project controlling, start-up
<b>Biogas Plant MILCHHOF WEINHEIM</b>	Germany	2002	Manure, corn	Stainless steel tank 770 m <sup>3</sup>	Dual fuel co-generator, 110 kWel	Agricultural biogas plant: 1 digester, 1 secondary digester	Basic evaluation, pre-, draft-, approval and execution planning

Reference list  
- Energy crops with and without manure -

Biogas Plant	Location	Year	Input	Digester	Co-generator	Features	Responsibility
<b>Biogas Plant KOERBER- HARRIEHAUSEN</b>	Germany	2002	Gras, energy crops in general	Concrete tank 630 m <sup>3</sup>	Dual fuel co- generator, 110 kWel	Agricultural biogas plant: 1 digester, 1 secondary digester, heat utilisation	Basic evaluation, pre-, draft-, approval and execution planning, tendering, participating in contract awarding process, site management/project controlling, start-up
<b>Biogas Plant TODENDORF</b>	Germany	2002	Manure, grass silage	Steel tank 2,400 m <sup>3</sup>	Dual fuel co- generator, 2 x 180 kWel	Agricultural biogas plant: 1 digester, 1 secondary digester, heat utilisation	Basic evaluation, pre-, draft-, approval and execution planning, tendering, participating in contract awarding process, site management/project controlling, start-up
<b>Biogas Plant HAUS RISWICK</b>	Germany	2002	Manure, agricultural organic waste	Concrete tank 570 m <sup>3</sup>	Dual fuel co- generator, 65 kWel	Agricultural biogas plant: 1 digester with gas holder, external heat exchanger	Basic evaluation, pre-, draft-, approval and execution planning, tendering, participating in contract awarding process, site management/project controlling, start-up
<b>Biogas Plant UELZEN GMBH</b>	Germany	2001/ 2002	Manure, corn, onions, potatoes, agricultural residues	Concrete tank 1,250 m <sup>3</sup>	Dual fuel co- generator, 2 x 100 kWel	Agricultural biogas plant: 1 digester, 1 secondary digester, 1 digestate storage tank	Basic evaluation, pre-, draft-, approval and execution planning, tendering, participating in contract awarding process, site management/project controlling, start-up
<b>Biogas Plant EICHHOF</b>	Germany	2001/ 2002	Manure, other organic waste	Concrete tank, 600 m <sup>3</sup>	Dual fuel co- generator, 22 kWel, gas engine, 15 kWel	Improvement of an 18 year old biogas plant, gas holder above manure storage tank, demonstration biogas plant for education of farmers	Basic evaluation, pre-, draft- and execution planning, tendering, participating in contract awarding process, site management/project controlling, start-up

Reference list  
- Energy crops with and without manure -

Biogas Plant	Location	Year	Input	Digester	Co-generator	Features	Responsibility
<b>Biogas Plant BOECKERMANN I</b>	Germany	2001/ 2002	Manure, corn silage, grass silage, dung	Glas coated steel tank 2,500 m <sup>3</sup>	Dual fuel co-generator, 2 x 160 kWel	Agricultural biogas plant: 1 digester, 1 secondary digester, heat utilisation in the stables	Basic evaluation, pre-, draft-, approval and execution planning, tendering, participating in contract awarding process, site management/project controlling, start-up, operation
<b>Biogas Plant EGGERT</b>	Germany	2001	Manure, fats, corn	Stainless steel tank 770 m <sup>3</sup>	Dual fuel co-generator, 100 kWel	Agricultural biogas plant: 1 digester, 1 secondary digester	Basic evaluation, pre-, draft-, approval and execution planning
<b>Biogas Plant MADER</b>	Germany	2001	Manure, corn, grass, bakery residues	Stainless steel tank 770 m <sup>3</sup>	Dual fuel co-generator, 100 kWel	Agricultural biogas plant: 1 digester, 1 secondary digester	Basic evaluation, pre-, draft-, approval and execution planning
<b>Biogas Plant THODE</b>	Germany	2001	Manure, corn silage	Stainless steel tank 600 m <sup>3</sup>	Dual fuel co-generator, 65 kWel	Agricultural biogas plant: 1 digester, 1 secondary digester	Basic evaluation, pre-, draft-, approval and execution planning
<b>Biogas Plant ECKERTZ</b>	Germany	2001	Manure, energy crops	Stainless steel tank 600 m <sup>3</sup>	Dual fuel co-generator, 100 kWel	Agricultural biogas plant: 1 digester, 1 secondary digester	Basic evaluation, pre-, draft-, approval and execution planning
<b>Biogas Plant HOFFMANN</b>	Germany	2001	Cattle manure, dung	Stainless steel tank, 600 m <sup>3</sup>	Dual fuel co-generator, 100 kWel	Agricultural biogas plant: 1 digester, 1 secondary digester	Basic evaluation, pre-, draft-, approval and execution planning
<b>Biogas Plant HINNEMANN</b>	Germany	2001	Manure, dung, corn, other organic waste	Stainless steel tank 1,000 m <sup>3</sup>	Dual fuel co-generator, 160 kWel	Agricultural biogas plant: 1 digester, 1 secondary digester	Basic evaluation, pre-, draft-, approval and execution planning
<b>Biogas Plant FELDMANN</b>	Germany	2001	Manure, corn	Stainless steel tank 1.050 m <sup>3</sup>	Dual fuel co-generator, 160 kWel	Agricultural biogas plant: 1 digester, 1 secondary digester	Basic evaluation, pre-, draft-, approval and execution planning

Reference list  
- Energy crops with and without manure -

Biogas Plant	Location	Year	Input	Digester	Co-generator	Features	Responsibility
<b>Biogas Plant FABEL</b>	Germany	2001	Manure, corn, potato starch residues, agricultural residues	Concrete tank 1,000 m <sup>3</sup>	Dual fuel co-generator, 2 x 110 kWel	Agricultural biogas plant: 1 digester, 1 secondary digester	Basic evaluation, pre-, draft-, approval and execution planning, tendering, participating in contract awarding process, site management/project controlling, start-up, operation
<b>Biogas Plant DICKHOVEN</b>	Germany	2001	Cattle manure, other organic waste	Concrete tank, 900 m <sup>3</sup>	Dual fuel co-generators, 2 x 65 kWel	Biogas plant digesting organic waste: 1 digester, gas holder above 1,500 m <sup>3</sup> manure storage tank, pasteurisation	Basic evaluation, pre-, draft-, approval and execution planning, tendering, participating in contract awarding process, conception for measurement system
<b>Biogas Plant SCHULTE-SPECHTEL</b>	Germany	2001	Manure, other organic waste	Concrete tank, 500 m <sup>3</sup>	Dual fuel co-generator, 40 kWel	Biogas plant digesting organic waste: 1 digester, gas holder above 1,000 m <sup>3</sup> manure storage tank	Basic evaluation, pre-, draft- and execution planning, tendering, participating in contract awarding process, conception for measurement system
<b>Biogas Plant PETRUSHEIM</b>	Germany	2001	Manure, other organic waste	Concrete tank, 1,000 m <sup>3</sup>	Dual fuel co-generators, 2 x 100 kWel	Biogas plant digesting organic waste: 1 digester, gas holder above 1,000 m <sup>3</sup> manure storage tank, heat utilisation	Basic evaluation, pre-, draft- and execution planning, tendering, participating in contract awarding process, conception for measurement system, site management/project controlling
<b>Biogas Plant NIJ BOSMA ZATHE</b>	The Netherlands	2000	Manure, grass	Steeltanks 2 x 80 m <sup>3</sup>	Dual fuel co-generator, 37 kWel	Agricultural biogas plant: 2 horizontal digester	Basic evaluation, pre-, draft and execution planning
<b>Biogas Plant THIESSEN</b>	Germany	2000	Manure, energy crops	Stainless steel tank 600 m <sup>3</sup>	Dual fuel co-generator, 45 kWel	Agricultural biogas plant: 1 digester, 1 secondary digester	Basic evaluation, pre-, draft and execution planning, start-up