Reference list RNG

Biogas Plant	Location	Constr. period	Input	Digester	Biogas utilisation	Features	Responsibility
Im Brahm	Germany	2024	Food waste, horse manure	Stock 2 x 1,200 m³ flat concrete digesters	Biogas upgrading system: 200 Nm³/h	2 digesters, 2 secondary digesters, 4 CHPs, digestate separator, extension: biogas upgrading plant (membrane) with heat recovery	Design planning, approval and implementation planning, tendering, participation in the awarding of contracts, support of site management, support of commissioning
Biomethane plant MICHIGAN 3	USA	2024-2025	Dairy manure	new construction: 1 x 7100 m³ steel tank	Biogas upgrading system: 550 Nm³/h biogas; Biogasoutput: 2,9 MW	Industrial biogas plant 1 digester, 1 secondary digester, 1 biomethane compressor station with heat recovery, 1 gas treatment plant and gas feed-in. Separation of the fermentation residue using screw separators	Basic evaluation, preliminary, draft, approval and implementation planning, tendering, involvement in awarding contracts, site management, commissioning, training
Biomethane plant MICHIGAN 2	USA	2024-2025	Dairy manure	new construction 2 x 9.200 m³ steel tanks	Biogas upgrading system: 1.400 Nm³/h biogas; Biogasoutput: 7,2 MW	Industrial biogas plant 2 digesters, 1 secondary digester, 1 biomethane compressor station with heat recovery, 1 gas treatment plant and gas feed-in. Separation of the fermentation residue using screw separators	Basic evaluation, preliminary, draft, approval and implementation planning, tendering, involvement in awarding contracts, site management, commissioning, training

Biogas Plant	Location	Constr. period	Input	Digester	Biogas utilisation	Features	Responsibility
Biomethane plant MICHIGAN 1	USA	2024-2025	Dairy manure	new construction: 1 x 9.300 m³ steel tank	Biogas upgrading system : 700 Nm³/h biogas Biogasoutput: 3,7 MW	Industrial biogas plant 1 digester, 1 secondary fermentation tank, 1 raw gas compressor station, 1 gas treatment plant (DWW) with heat recovery and gas feed-in. Separation of the fermentation residue using a screw separator	Basic evaluation, preliminary, design and implementation planning, tendering, involvement in awarding contracts, site management, commissioning, training
Biomethane plant NEW YORK STATE 3	USA	2024-2025	Dairy manure	new construction: 1 x 6.700 m³ steel tank	Biogas upgrading system : 500 Nm³/h biogas Biogasoutput: 2,7 MW	Industrial biogas plant 1 digester, 1 secondary fermentation tank, 1 raw gas compressor station, 1 gas treatment plant (DWW) with heat recovery and gas feed-in. Separation of the fermentation residue using a screw separator	Basic evaluation, preliminary, draft, approval and implementation planning, tendering, involvement in awarding contracts, site management, commissioning, training
Biomethane plant NEW YORK STATE 4	USA	2024-2025	Dairy manure	new construction: 6.700 m³ steel tank	Biogas upgrading system: 416 Nm³/h Biogas Biogasoutput: 2,6 MW	Industrial biogas plant with 1 digester, 1 secondary digester, 1 biomethane compressor station with heat recovery, 1 gas treatment plant and gas feed-in. Separation of the fermentation residue using screw separators	Basic evaluation, preliminary, draft, approval and implementation planning, tendering, involvement in awarding contracts, site management, commissioning, training

Biogas Plant	Location	Constr. period	Input	Digester	Biogas utilisation	Features	Responsibility
Biomethane plant VELEN	Germany	2023-2024	pig-, cattle-, horse-, chicken- and turkey manure and dry chicken manure	new construction: 2 x 9.500m³ steel tanks	Biogas upgrading system 1860 Nm³/h bBiogas, 945 Nm³/h biomethane, biomethane is planned for up to 2.000 Nm³/h	2 secondary digesters, 2 external gas storage tanks, 2 fermentation residue storage tanks, external desulphurisation, separation of fermentation residue	Implementation planning, preparation and participation in the awarding of contracts, construction supervision (site management), commissioning, as well as: Risk assessment, explosion protection document, operator training
Biomethan plant BIOFERM WHISKEY	USA	2023 - 2024	Distillery Stillage	Existing digester	Biogas upgrading system 5.300 Nm³/h	Industrial biogas plant: three digester tanks, three secondary digester tanks, one buffer tank, cooling system for stillage, gas holder above secondary digester tanks, mesophile and thermophile operation	Basic Evalution, Pre-, Draft- Approval-Excecution-Planning, Preparation of tendering/ awardess, Process management, monitoring, start-up, operator service
Biomethan plant BIOERDGAS ISENHAGEN	Germany	2023 - 2024	Energy plants, chicken and cattle dung	Existing digester	Biogas upgrading system, 1400 Nm³/h CO2-liquifaction	Extention of existing biogas plant, Virtual gas pipeline (by truck), heating recovery from digestate,	Basic evaluation, pre-, draft- and execution planning
Biomethan plant HEILIGENGRABE	Germany	2023 - 2024	Cattle manure, chicken manure, horse manure, corn silage, grain corn, dirty water	Existing digester	Biogas upgrading system, 905 Nm³/h injection into grid	2 fermentation sections, 2 fermenters, post-fermentation tank, gas-tight digestate storage, hydrolysis tank	Basic evaluation, pre-, draft- , approval- and execution planning, tendering, participation in awarding contracts and site management
Biomethan plant NEW YORK STATE 1	USA	2023 - 2024	Dairy manure	Existing digester	Biogas upgrading system 450 m³/h	Extention of existing agricultural biogas plant, virtual gas pipeline (by truck), digestate heat recovery	Basic evaluation, pre-, draft- and execution planning, tendering, participating in contract awarding process, site management/project controlling, start-up, training for operator training

Biogas Plant	Location	Constr. period	Input	Digester	Biogas utilisation	Features	Responsibility
Biomethan plant NEW YORK STATE 2	USA	2023 - 2024	Dairy manure	Existing digester	Biogas upgrading system 600 m³/h	Extention of existing agricultural biogas plant, digestate heat recovery	Basic evaluation, pre-, draft- and execution planning, tendering, participating in contract awarding process, site management/project controlling, start-up, training for operator training
Biomethan plant USA	USA	2019-2021	Straw and manure	Steel tank 6 x 8,000 m³ + 1 concrete tank 5,000 m³	Biogas upgrading system 4,600 m³/h	Industrial biogas plant: 7 digester, 2 secondary digester, thermophiloc process, dewatering, mechanical high pressure straw pretreatment	Basic evaluation, pre-, draft- and execution planning, tendering, participating in contract awarding process, start-up, training for operator training
Biomethan plant DERBY	Great Britain	2017 - 2018	Kitchen waste solid and liquid, viscera (Cat. 2 waste), paper & cards, straw	Concrete tank 2 x 5,300 m³	Biogas upgrading system 1,200 m³/h	Industrial biogas plant for the digestion of hydrolysed waste. Thermal pressure hydrolysis process, buffer tank, cooling tank, mesophilic operation	Basic evaluation, pre-, draft- and execution planning, tendering, participating in contract awarding process, site management/project controlling, start-up, training for operators
Biogas Plant JIAOZUO	China	2016 - 2017	Kitchen waste	Steel tank, welded 2 x 1,500 m³	Biogas upgrading system	Biogas plant digesting organic waste: 2 digester, 1 storage tank (by client), 1 hydrolysis tank (by client), oil separation with heat recovery system	Basic evaluation, pre-, draft- and execution planning, tendering, participating in contract awarding process, site management/project controlling, start-up, training for operators
Biogas Plant WUHU	China	2016 - 2017	Kitchen waste	Steel tank, welded 2 x 3,400 m³	Biogas upgrading system	Biogas plant digesting organic waste: 2 digester, 1 storage tank (by client), 2 hydrolysis tanks (by client), oil separation with heat recovery system	Basic evaluation, pre-, draft- and execution planning, tendering, participating in contract awarding process, site management/project controlling, start-up, training for operators

Biogas Plant	Location	Constr. period	Input	Digester	Biogas utilisation	Features	Responsibility
Biogas Plant QINHUANGDAO	China	2013 - 2014	Kitchen waste	Black steel, welded 2 x 3,400 m³	Biogas upgrading system, biomethane used for vehicle fuel	Biogas plant digesting kitchen waste: pre-treatment, hydrocyclone, 1 hydrolysis tank, 2 digester, 1 storage tank, digestate treatment, mesophilic process, external heating and cooling	Basic evaluation, pre-, draft- and execution planning, tendering, participating in contract awarding process, site management/project controlling, start-up, training for operators
Biogas Plant DEQINGYAN	China	USA	Pretreated chicken manure, biowaste, corn straw, recirculating digestate	Stainless steel 2 x 2,600 m³	Biogas upgrading system, biomethane used in households	Biogas plant digesting organic waste: 2 digester, 2 secondary digester, external gas storage, biogas upgrading and utilisation in households	Basic evaluation, pre-planning, draft planning, execution planning, tendering
Biogas Plant VIERVERLATEN	The Netherlands	2012	Sugar beets and potato waste	Glass coated steel tanks 4 x 4,600 m³	Biogas upgrading system, injektion into the grid	Industrial biogas plant: 4 digester, 1 secondary digester with gas holder, digestate treatment , gas cooling system, mesophilic operation, biogas upgrading system and injection into grid	Basic evaluation, pre-, draft- and execution planning, tendering, participating in contract awarding process, site management/project controlling, start-up, training for operators
Biogas Plant ANKLAM	Germany	2012	Sugar beet, vinasse	Glass coated steel tank 4 x 4,600 m³	Biogas upgrading system, injektion into grid	Industrial biogas plant: 4 digester, 1 secondary digester, gas holder above secondary digester, digestate treatment, mesophilic operation, biogas upgrading and injection into grid	Basic evaluation, pre-, draft-, approval and execution planning, tendering, participating in contract awarding process, site management/project controlling, start-up, training for operators

Biogas Plant	Location	Constr. period	Input	Digester	Biogas utilisation	Features	Responsibility
Biogas Plant DINTELOORD	The Netherlands	2011	Sugar beet, vegetable waste (potato, chicoree)	Glass coated steel tanks 4 x 4,600 m³	Biogas upgrading system, injection into grid	Industrial biogas plant: 4 digester, 1 secondary digester, digestate treatment, gas cooling system, mesophilic operation, biogas upgrading and injection into grid	Basic evaluation, consultancy services for approval planning, pre-, draft- and execution planning, tendering, participating in contract awarding process, site management/project controlling, local construction supervision, start-up, training for operators
Biogas Plant SEMD	Germany	2009/10	Corn silage	Prestressed concrete, prefabricated element tank 2,500 m³	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
Biogas Plant INLAND EMPIRE	USA	2006	Manure, organic waste	Epoxy/Glass coated steel tanks 2 x 4,500 m³	Feeding into gas distribution system	Industrial biogas plant: 2 digester, storage tank, feeding into gas distribution system (20,000 m³/d)	Basic evaluation, pre-, draft- and execution planning, start-up, consultancy service on site