

Reference list (excerpt)						
Combustion of lean gases from gas upgrading plants						
Project	Lean gas quantity	Gas treatment	CH4 (Interpretation)	Installation site	Project status	Date IBS
7005	500 NMCH	PSA	4 Vol.%	Mühlacker (D)	Continuous operation	December 2007
7006	110 NMCH	PSA	7,8 Vol.%	Widnau (CH)	Continuous operation	January 2008
7003	76 NMCH	PSA	13,2 Vol.%	Lavigny (CH)	De-comissioned	February 2009
8004	105 NMCH	PSA	14,9 Vol.%	Roche (CH)	Continuous operation	March 2009
7008	300 NMCH	PSA	3,8 Vol.%	Burgrieden-Bühl (D)	Continuous operation	March 2007
8001	500 NMCH	PSA	4 Vol.%	Graben (D)	Continuous operation	July 2009
8005	650 NMCH	PSA	4,8 Vol.%	Güterglück (D)	Continuous operation	September 2009
9004	1000 NMCH	PSA	4,6 Vol.%	Aiterhofen (D)	Continuous operation	February 2010
9005	250 NMCH	PSA	3,5 Vol.%	Hille (D)	Continuous operation	March 2010
9006	250 NMCH	Membrane	9,2 Vol.%	Wangen (D)	Continuous operation	May 2010
10005	200 NMCH	PSA	3,6 Vol.%	Emmertsbühl (D)	Continuous operation	October 2010
10006	600 NMCH	PSA	4,5 Vol.%	Wriezen (D)	Continuous operation	February 2011
10003	600 NMCH	PSA	5 Vol.%	Eich/Kallmünz (D)	Continuous operation	January 2011
10007	700 NMCH	PSA	5 Vol.%	Oschatz (D)	Continuous operation	December 2011
10010	250 NMCH	PSA	3,6 Vol.%	Werlte (D)	Continuous operation	January 2011
10011	250 NMCH	PSA	3,6 Vol.%	Börger (D)	Continuous operation	February 2011
10012	650 NMCH	PSA	5 Vol.%	Blankenhain (D)	Continuous operation	November 2011
10013	600 NMCH	PSA	7 Vol.%	Gollhofen (D)	Continuous operation	November 2011
11002	300 NMCH	PSA	3,6 Vol.%	Burgriden-Bühl 2 (D)	Continuous operation	October 2011
11003	350 NMCH	PSA	3,6 Vol.%	Giesen (D)	Continuous operation	March 2012
11004	350 NMCH	PSA	3,6 Vol.%	Bad-Münder (D)	Continuous operation	May 2012
11008	630 NMCH	PSA	3,7 Vol.%	Aicha (D)	Continuous operation	February 2012
11011	615 NMCH	PSA	2,7 Vol.%	Hohenhameln-Mehrun (D)	Continuous operation	June 2012
12001	160 NMCH	PSA	7-2,4 Vol.%	Genf (CH)	Continuous operation	June 2013
12002	445 NMCH	PSA	3 Vol.%	Riedlingen (D)	Continuous operation	June 2012
12005	750 NMCH	PSA	3 Vol.%	Kannawurf (D)	Continuous operation	August 2013
12007	750 NMCH	PSA	3 Vol.%	Brandis (D)	Continuous operation	September 2013
12012	550 NMCH	PSA	3,2 Vol.%	Pliening (D)	Continuous operation	October 2013
13002	100 NMCH	PSA	17 Vol. %	Cholet (F)	Continuous operation	January 2014
14008	520 NMCH	PSA	4 Vol. %	Sofielund (SWE)	Continuous operation	August 2015
16002	280 NMCH	PSA	3,8 Vol.%	Quimper (F)	Continuous operation	December 2016
16012	280 NMCH	PSA	3,8 Vol.%	Chateaulin (F)	Continuous operation	June 2017
16013	75 NMCH	PSA	6 Vol%	Benet (F)	Continuous operation	April 2017
17002	400 NMCH	PSA	5 Vol.%	Fonroche (F)	Continuous operation	June 2017
17003	116 NMCH	PSA	6 Vol%	Savigny-sur-Braye (F)	Continuous operation	July 2017
17014	450 NMCH	PSA	5 Vol.%	Fulda (D)	Continuous operation	August 2019

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17015	100 NMCH	PSA	6 Vol%	Aiguefonde (F)	Continuous operation	June 2018
17016	250 NMCH	PSA	6 Vol%	Chantonnay (F)	Continuous operation	July 2018
17017	250 NMCH	PSA	6 Vol%	Combrand (F)	Continuous operation	July 2018
17022	600 NMCH	PSA	6 Vol%	Benesse-Mareme (F)	Continuous operation	September 2018
18006	250 NMCH	membrane/cryogenic	7 Vol. %	Pavie (F)	Continuous operation	September 2018
18009	400 NMCH	membrane/cryogenic	7 Vol. %	Saint Maximin (F)	Continuous operation	December 2018
18010	400 NMCH	membrane/cryogenic	7 Vol. %	Saint Palais (F)	Continuous operation	December 2018
18011	250 NMCH	PSA	6 Vol%	Le Poire sur Vie (F)	Continuous operation	April 2019
18014	400 NMCH	membrane/cryogenic	7 Vol. %	Saint Florentin (F)	Continuous operation	April 2019
18015	250 NMCH	membrane/cryogenic	7 Vol. %	Chevilly (F)	Continuous operation	March 2019
19001	400 NMCH	membrane/cryogenic	7 Vol. %	Gueltas (F)	Continuous operation	May 2019
19007	250 NMCH	membrane/cryogenic	7 Vol. %	Kermat (F)	Continuous operation	October 2019
19008	400 NMCH	membrane/cryogenic	7 Vol. %	Ventes de Bourse (F)	Continuous operation	November 2019
19009	500 NMCH	membrane/cryogenic	7 Vol. %	Saint Gaudens (F)	Continuous operation	January 2020
19010	600 NMCH	membrane/cryogenic	9,3 Vol. %	Blaringhem (F)	Continuous operation	April 2020
19011	150 NMCH	Membrane	0 – 3 Vol. %	Jönköping (S)	Continuous operation	June 2020
19012	500 NMCH	PSA	5 Vol. %	Massa Finalese (I)	Continuous operation	July 2020
20012	400 NMCH	membrane/cryogenic	7 Vol. %	Gournay (F)	Continuous operation	June 2021
20013	400 NMCH	membrane/cryogenic	7 Vol. %	Le Ham (F)	Continuous operation	Dezenber 2021
21002	1200 NMCH	membrane/cryogenic	7 Vol. %	Claye-Souilly (F)	Continuous operation	February 2022
21004	1000 NMCH	Dual PSA	4-10 Vol%	Genova (I)	Continuous operation	September 2021
21018	1000 NMCH	membrane/cryogenic	7 Vol. %	Barcelona (Sp)	Continuous operation	August 2022
21019	400 NMCH	membrane/cryogenic	7 Vol. %	Chatuzange (F)	Continuous operation	October 2023
21020	400 NMCH	membrane/cryogenic	7 Vol. %	Metaillan Bassilac (F)	Continuous operation	December 2022
21021	400 NMCH	membrane/cryogenic	7 Vol. %	Septemes (F)	Continuous operation	January 2023
22004	500 NMCH	membrane/cryogenic	7 Vol. %	Frensoy Folny (F)	Continuous operation	June 2023
22005	400 NMCH	membrane/cryogenic	7 Vol. %	Montois la Montagne (F)	Continuous operation	June 2023
22006	400 NMCH	membrane/cryogenic	7 Vol. %	F	Continuous operation	July 2023
22007	400 NMCH	membrane/cryogenic	7 Vol. %	F	Continuous operation	July 2023
22010	900 NMCH	PSA	5 Vol. %	Södertörn (S)	Test operation	October 2023
22026	500 NMCH	membrane/cryogenic	7 Vol. %	Marie Kerque (F)	Test operation	November 2023
23003	400 NMCH	membrane/cryogenic	7 Vol. %	Granges (F)	Mounting	February 2024
23004	250 NMCH	membrane/cryogenic	7 Vol. %	Cerlmon Ferrand (F)	Mounting	December 2023
24001	10500 NMCH	membrane/cryogenic	7 Vol%	Landfill Sao Paulo Brazil	Planning	February 2024
Combustion of landfill gas						
Project	Lean gas quantity	Gas treatment	CH4 (Interpretation)	Installation site	Project status	Date comissioning
10008	100 NMCH	Landfill gas	30-6,5 Vol. %	Neuenburg (D)	Continuous operation	March 2013

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10009	100 NMCH	Landfill gas	30-6,5 Vol. %	Titisee-Neuhaus (D)	Continuous operation	May 2011
11010	50 NMCH	Landfill gas	40-6,5 Vol. %	Sigmaringen (D)	Continuous operation	February 2012
11014	110 NMCH	Landfill gas	41-6,5 Vol. %	Dörpen (D)	Continuous operation	October 2012
12006	60 NMCH	Landfill gas	25 – 60 Vol. %	Bad Kissingen (D)	Continuous operation	August 2013
14004	250 NMCH	Landfill gas	5,5-40 Vol. %	Esslingen Ramsklunge (D)	Continuous operation	December 2014
14006	250 NMCH	Landfill gas	5,5-40 Vol. %	Leonberg Warmbronn (D)	Continuous operation	March 2015
14007	600 NMCH	Landfill gas	5,5-40 Vol. %	Tuningen (D)	Continuous operation	March 2015
15002	250 NMCH	Landfill gas	6,5-40 Vol. %	Litzholz (D)	Continuous operation	October 2015
15004	250 NMCH	Landfill gas	7,5-40 Vol. %	Hüfingen (D)	Continuous operation	December 2015
16004	250 NMCH	Landfill gas	8,5-40 Vol. %	Esslingen Blumentobel (D)	Continuous operation	October 2016
16005	100 NMCH	Landfill gas	9,5-40 Vol. %	Gummersloch (CH)	Continuous operation	November 2016
16008	250 NMCH	Landfill gas	10,5-40 Vol. %	Bever (CH)	Continuous operation	January 2017
16016	400 NMCH	Landfill gas	11,5-40 Vol. %	Winnenden (D)	Continuous operation	May 2017
17010	250 NMCH	Landfill gas	12,5-40 Vol. %	Kirschenplantage, Kassel (D)	Continuous operation	February 2018
17019	50 NMCH	Landfill gas	13,5-40 Vol. %	Liesberg (CH)	Continuous operation	February 2018
17020	250 NMCH	Landfill gas	14,5-40 Vol. %	Castrop (D)	Continuous operation	May 2018
18002	250 NMCH	Landfill gas	15,5-40 Vol. %	Karlsruhe (D)	Continuous operation	July 2018
18004	100 NMCH	Landfill gas	16,5-40 Vol. %	Uttigen (CH)	Continuous operation	August 2018
18017	30 NMCH	Landfill gas	17,5-40 Vol. %	Chatillon (CH)	Continuous operation	September 2019
19002	100 NMCH	Landfill gas	18,5-40 Vol. %	Jaberg (CH)	Continuous operation	August 2019
19013	120 NMCH	Landfill gas	19,5-40 Vol. %	Falun (SWE)	Continuous operation	October 2020
21008	250 NMCH	Landfill gas	20,5-40 Vol. %	Ahretal Innsbruck (A)	Continuous operation	February 2021
21017	50 m³/h	Landfill gas	21,5-40 Vol. %	Siedenmoos (CH)	Continuous operation	June 2022
22010	400 NMCH	Landfill gas	22,5-40 Vol. %	Södertörn (S)	Test operation	October 2023
23005	250 NMCH	Landfill gas	23,5-40 Vol. %	Kassel (D)	Mounting	February 2024

Thermal oxidizer

Project	Gas quantity	Process type	Max. Load	Installation site	Project status	Date commissioning
6001	15 Nm³/h	Ceramic furnace	40 kW	Willich (D)	Continuous operation	December 2006
6003	15 Nm³/h	Laboratory	40 kW	Stuttgart (D)	Continuous operation	July 2008
8002	40 Nm³/h	Ceramic furnace	75 kW	Willich (D)	Continuous operation	April 2009
9001	40 Nm³/h	Laboratory	75 kW	Stuttgart (D)	Continuous operation	January 2010
11013	100 Nm³/h	Laboratory	200 kW	Deggendorf (D)	Continuous operation	June 2013
12004	100 Nm³/h	Power to Gas	120 kW	Stuttgart (D)	Continuous operation	January 2013
14010	150 Nm³/h	Laboratory	200 kW	Lemförde (D)	Continuous operation	March 2015
14009	15 Nm³/h	Regeneration activated carbon	20 kW	Lion (F)	Continuous operation	May 2017
15008	8 Nm³/h	Purge air silicon mixer	30 kW	Wiesbaden (D)	Continuous operation	September 2016
17001	24 Nm³/h	industrial furnace metal	110 kW	Untertürkheim (D)	Continuous operation	June 2017

Reference list (excerpt)

17006	950 Nm³/h	polymer processing	300 kW	Lemförde (D)	Continuous operation	September 2017
17007	1450 Nm³/h	polymer processing	900 kW	Lemförde (D)	Continuous operation	March 2018
18005	400 Nm³/h	Mine gas	1000 kW	Saarbrücken (D)	Continuous operation	December 2018
18013	80 Nm³/h	Pahrmacy	100 kW	Bernburg (D)	Continuous operation	February 2019
21007	2500 Nm³/h	Chemistry	1800 kW	Aschau (D)	Continuous operation	July 2022
22001	200 Nm³/h	Demonstration plant	500 kW	Vechte (D)	Continuous operation	November 2023

Syngas combustion

Project	Gas quantity	Process type	Max. Load	Installation site	Project status	Date comissioning
8006	100 Nm³/h	TMT Kiln	200 kW	Maniago (I)	Continuous operation	January 2010
9011	100 Nm³/h	TMT Kiln	200 kW	Novska (Hr)	Continuous operation	May 2010
13007	500 Nm³/h	TMT Kiln	500 kW	Napier (NZ)	De-comissioned	April 2014
13009	800 Nm³/h	Bio charcoal kiln	800 kW	Rheede (D)	Continuous operation	June 2014
13010	500 Nm³/h	TMT Kiln	500 kW	Krogzemji (LT)	Continuous operation	April 2014
14012	100 Nm³/h	Biomass Pyrolysis	350 kW	Goldenstedt (D)	Continuous operation	February 2015
14013	350 Nm³/h	Torrefaction	500 kW	Pogbe (BI)	De-comissioned	August 2016
19003	200 Nm³/h	Plastics Gasification	700 kW	Sulzbach-Rorsenberg (D)	Continuous operation	June 2021
20001	200 Nm³/h	pyrolysis sewage sludge	700 kW	Hofheim am Taunus (D)		April 2021
20003	1600 Nm³/h	Bio charcoal kiln	2,4 MW	Rieden (D)	Continuous operation	November 2021
20005	400 Nm³/h	Biomass Pyrolysis	1,1 MW	Basel (CH)	Continuous operation	April 2021
20008	800 Nm³/h	Biomass Pyrolysis	3,4 MW	Hamburg (D)	Continuous operation	September 2021
20010	40 Nm³/h	Laboratory	200 kW	Frankfurt (D)	Continuous operation	September 2021
21001	600 Nm³/h	Biomass Pyrolysis	2,7 MW	Helsingborg (SWE)	Continuous operation	February 2022
21003	800 Nm³/h	Bio charcoal kiln	1,2 MW	Darmstadt (D)	Continuous operation	January 2022
21009	200 Nm³/h	Biomass Pyrolysis	550 kW	EU	Continuous operation	May 2022
21010	400 Nm³/h	Biomass Pyrolysis	1,1 MW	USA	Continuous operation	July 2022
21011	400 Nm³/h	Biomass Pyrolysis	1,1 MW	USA	Continuous operation	September 2022
21012	400 Nm³/h	Biomass Pyrolysis	1,1 MW	EU	Continuous operation	August 2022
21013	400 Nm³/h	Biomass Pyrolysis	1,1 MW	EU	Continuous operation	August 2022
21014	400 Nm³/h	Biomass Pyrolysis	1,1 MW	EU	Continuous operation	September 2022
22008	400 Nm³/h	Biomass Pyrolysis	1,1 MW	EU	Continuous operation	February 2023
22009	400 Nm³/h	Biomass Pyrolysis	1,1 MW	USA	Continuous operation	March 2023
22002	20 Nm³/h	Plastic Pyrolysis	100 kW	Madrid (Sp)	Continuous operation	March 2022
22003	400 Nm³/h	Used Tire Pyrolysis	5 MW	Dillingen (D)	Test operation	July 2023
23010	1100 Nm³/h	Biomass Pyrolysis	2 x 6 MW	Rhode Island (USA)	Mounting	March 2024
22013	400 Nm³/h	Biomass Pyrolysis	1,1 MW	EU	Continuous operation	June 2023
22014	400 Nm³/h	Biomass Pyrolysis	1,1 MW	EU	Continuous operation	June 2023
22015	400 Nm³/h	Biomass Pyrolysis	1,1 MW	EU	Mounting	August 2023

Reference list (excerpt)						
22016	400 Nm ³ /h	Biomass Pyrolysis	1,1 MW	EU	Mounting	August 2023
22017	400 Nm ³ /h	Biomass Pyrolysis	1,1 MW	USA	Mounting	October 2023
22018	400 Nm ³ /h	Biomass Pyrolysis	1,1 MW	USA	Mounting	October 2023
22019	400 Nm ³ /h	Biomass Pyrolysis	1,1 MW	USA	Mounting	February 2024
22020	400 Nm ³ /h	Biomass Pyrolysis	1,1 MW	EU	Mounting	February 2024
22021	400 Nm ³ /h	Biomass Pyrolysis	1,1 MW	EU	Mounting	June 2024
22022	400 Nm ³ /h	Biomass Pyrolysis	1,1 MW	EU	Mounting	June 2024
22023	400 Nm ³ /h	Biomass Pyrolysis	1,1 MW	EU	Mounting	August 2024
22024	400 Nm ³ /h	Biomass Pyrolysis	1,1 MW	EU	Mounting	August 2024
22027	100 Nm ³ /h	Biomass Pyrolysis	250 kW	D	Planning	December 1899
22028	100 Nm ³ /h	Biomass Pyrolysis	200 kW	D	Continuous operation	May 2024
23009	800 Nm ³ /h	Biomass Pyrolysis	2,4 MW	D	Mounting	May 2024