

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/Kalmünz (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)	Test 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

Reference list (excerpt)

17014	450 NMCH	PSA	5 Vol.%	Fulda (D)	Continuous operation	August 2019
17015	100 NMCH	PSA	6 Vol%	Aiguefonde (F)	Continuous operation	June 2018
17016	250 NMCH	PSA	6 Vol%	Chantonay (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/cryogenic	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	PSA	7 Vol.%	Gournay (F)	Commissioning	June 2021
20013	400 NMCH	PSA	7 Vol.%	Le Ham (F)	Mounting	Dezenber 2021
21002	1200 NMCH	PSA	7 Vol.%	Claye-Souilly (F)	Planning	February 2022
21004	1000 NMCH	PSA	4-10 Vol%	Genova (I)	Planning	September 2021

Combustion of landfill gas

Project	Lean gas quantity	Gas treatment	CH ₄ (Interpretation)	Installation site	Project status	Date comissioning
10008	100 NMCH	Landfill gas	30-6,5 Vol.%	Neuenburg (D)	Continuous operation	March 2013
10009	100 NMCH	Landfill gas	30-6,5 Vol.%	Titisee-Neutsadt (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 Ramsklinge (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

Reference list (excerpt)						
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 Insbruck (A)	Planning	December 2022
Thermal oxidizer						
Project	Gas quantity	Process type	Max. Load	Installation site	Project status	Date comissioning
6001	15 Nm ³ /h	Ceramic furnace	40 kW	Willich (D)	Continuous operation	December 2006
6003	15 Nm ³ /h	Laboratory	40 kW	Stuttgart (D)	Continuous operation	July 2008
8002	40 Nm ³ /h	Ceramic furnace	75 kW	Willich (D)	Continuous operation	April 2009
9001	40 Nm ³ /h	Laboratory	75 kW	Stuttgart (D)	Continuous operation	January 2010
11013	100 Nm ³ /h	Laboratory	200 kW	Deggendorf (D)	Continuous operation	June 2013
12004	100 Nm ³ /h	Power to Gas	120 kW	Stuttgart (D)	Continuous operation	January 2013
14010	150 Nm ³ /h	Laboratory	200 kW	Lemförde (D)	Continuous operation	March 2015
14009	15 Nm ³ /h	Regeneration activated ca	20 kW	Lion (F)	Continuous operation	May 2017
15008	8 Nm ³ /h	Purge air silicon mixer	30 kW	Wiesbaden (D)	Continuous operation	September 2016
17001	24 Nm ³ /h	industrial funrace metal	110 kW	Untertürkheim (D)	Continuous operation	June 2017
17006	950 Nm ³ /h	polymer processing	300 kW	Lemförde (D)	Continuous operation	September 2017
17007	1450 Nm ³ /h	polymer processing	900 kW	Lemförde (D)	Continuous operation	March 2018
18005	400 Nm ³ /h	Mine gas	1000 kW	Saarbrücken (D)	Continuous operation	December 2018
18013	80 Nm ³ /h	Pahrmacy	100 kW	Bernburg (D)	Continuous operation	February 2019
21007	2500 Nm ³ /h	Chemistry	1800 kW	Aschau (D)	Planning	February 2021
Syngas combustion						
Project	Gas quantity	Process type	Max. Load	Installation site	Project status	Date comissioning
8006	100 Nm ³ /h	TMT Kiln	200 kW	Maniago (I)	Continuous operation	January 2010
9011	100 Nm ³ /h	TMT Kiln	200 kW	Novska (Hr)	Continuous operation	May 2010
13007	500 Nm ³ /h	TMT Kiln	500 kW	Napier (NZ)	De-comissioned	April 2014
13009	800 Nm ³ /h	Bio charcoal kiln	800 kW	Rheede (D)	Continuous operation	June 2014
13010	500 Nm ³ /h	TMT Kiln	500 kW	Krogzemji (LT)	Continuous operation	April 2014

Reference list (excerpt)						
14012	100 Nm ³ /h	Biomass Pyrolysis	350 kW	Goldenstedt (D)	Continuous operation	February 2015
14013	350 Nm ³ /h	Torrefaction	500 kW	Pogbe (BI)	De-comissioned	August 2016
19003	200 Nm ³ /h	Plastics Gasification	700 kW	Sulzbach-Rosenberg (D)	Commissioning	June 2021
20001	200 Nm ³ /h	pyrolysis sewage sludge	700 kW	Hofheim am Taunus (D)		April 2021
20003	1600 Nm ³ /h	Bio charcoal kiln	2,4 MW	Rieden (D)	Mounting	November 2021
20005	400 Nm ³ /h	Biomass Pyrolysis	1,1 MW	Basel (CH)	Commissioning	April 2021
20008	800 Nm ³ /h	Biomass Pyrolysis	3,4 MW	Hamburg (D)	Test operation	September 2021
20010	40 Nm ³ /h	Laboratory	200 kW	Frankfurt (D)	Mounting	September 2021
21001	600 Nm ³ /h	Biomass Pyrolysis	2,7 MW	Helsingborg (SWE)	Mounting	February 2022
21003	800 Nm ³ /h	Bio charcoal kiln	1,2 MW	Darmstadt (D)	Mounting	January 2022
21009	200 Nm ³ /h	Biomass Pyrolysis	750 kW	EU	Planning	December 2021
21010	400 Nm ³ /h	Biomass Pyrolysis	1,5 MW	USA	Planning	January 2022
21011	400 Nm ³ /h	Biomass Pyrolysis	1,5 MW	USA	Planning	February 2022
21012	400 Nm ³ /h	Biomass Pyrolysis	1,5 MW	EU	Planning	March 2022
21013	400 Nm ³ /h	Biomass Pyrolysis	1,5 MW	EU	Planning	April 2022
21014	400 Nm ³ /h	Biomass Pyrolysis	1,5 MW	EU	Planning	May 2022