

BREAKDOWN OF 35 BCM BASED ON SUSTAINABLE BIOMASS POTENTIAL

The table below shows how the EU can produce 35 bcm of biomethane from sustainable biomass feedstocks sourced from within the EU. This feedstock mix below is largely based on previous work by Gas for Climate and underlying data and studies, plus additional insights on the potential from industrial wastewater. The assumptions used on feedstock availability are highly conservative.

Feedstock	Biomethane	Assumptions	Source
Manure	16 bcm	Solid manure: 50% of all the solid manure potential at farms with more than 100 Lifestock Units (LU). Liquid manure: 100% of all the liquid manure at farms with more than 100 LU. Only manure that is collected from stables	Gas for Climate, based on Elbersen et al., 2016: "Outlook of spatial biomass value chains in EU-28. See here.
Agricultural residues	10 bcm	Largest share of straw is left on agricultural soils. From sustainably collectable straw, 50% of cereal straw is considered to be used for biomethane. Remainder mostly for animal bedding.	Gas for Climate (Iqbal et al. 2016): "Maximising the yield of biomass from residues of agricultural crops and biomass from forestry (Spottle et al. 2013). "Low ILUC potential of wastes and residues for biofuels: Straw, forestry residues, UCO, corn cobs" (Elbersen et al., 2016): "Outlook of spatial biomass value chains in EU-28"
Food waste	2 bcm	7% of food waste in the EU today	Gas for Climate Eurostat (CE, Delft, 2017): "Optimal use of biogas from waste streams" (Elbersen et al., 2016): "Outlook of spatial biomass value chains in EU-28"
Industrial wastewater	3 bcm	Total potential for 2050 of 14 bcm. Assumed that by 2030 20% of that potential could be achieved.	EBA (2021), The role of biogas production from industrial wastewaters in reaching climate neutrality by 2050. See here
Silage produced as sequential/ double crops	4 bcm	Implemented today in Italy, tested in France. EU potential of 41 bcm (Gas for Climate) or higher (Uni Ghent and EBA). Assumed that by 2030 10% of the Gas for Climate potential can be achieved.	
TOTAL	35 bcm		