

Wastewater to Renewable Energy: Fast Facts



Wastewater treatment plants offer significant untapped renewable energy with the potential to generate **electricity for 1.9 million U.S. households every year.**

Overview

There are about **2,580 operating biogas capture facilities in the U.S.**, and almost **half are located at wastewater treatment plants.** Across all sectors, the American Biogas Council estimates approximately 793 billion cubic feet (Bcf) of biogas is captured annually. Wastewater contributes about 12.5% of that total or 100 Bcf per year.

More than **1,200** wastewater treatment plants across the U.S. currently capture biogas, according to the American Biogas Council's data. Together, these facilities produce 100.1 billion cubic feet of biogas per year, enough to generate approximately 212 billion kilowatt-hours of electricity annually and power approximately 1.1 million U.S. homes today.

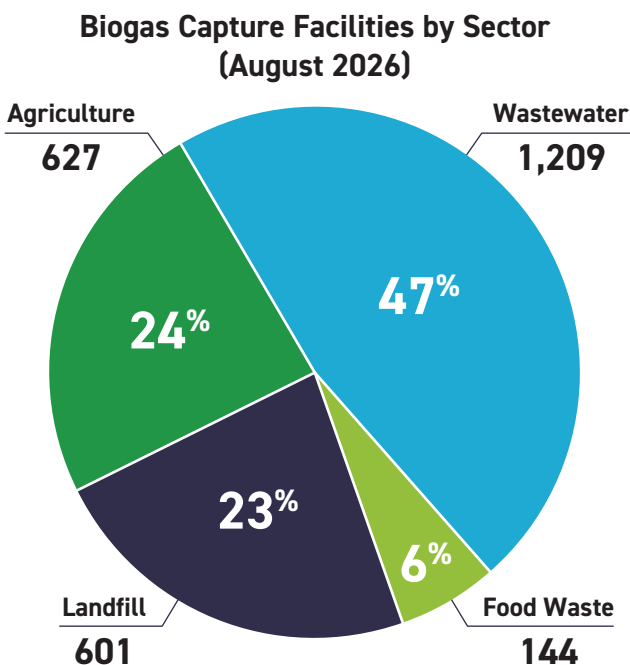
About **3,800** additional wastewater treatment plants have sufficient wastewater flows for biogas capture to be a viable option. If these facilities captured their biogas and used it to produce energy, annual biogas production could increase to approximately 172 billion cubic feet, enough to generate electricity for approximately 1.9 million U.S. homes.

At a Glance

- **1,200+ wastewater treatment plants** with operational biogas capture
 - About one-quarter of the roughly 5,000 wastewater plants processing more than one million gallons per day have incorporated biogas systems.
 - The potential expansion of **3,800** additional wastewater treatment plant facilities could produce a total of **172 Bcf/yr**, enough electricity for **1.9 million U.S. homes.**
- **100 Bcf/yr** estimated biogas captured by wastewater facilities
 - More than 80% of wastewater treatment plant biogas systems use the gas for on-site energy production.
 - 58% list electricity generation/cogeneration as the primary end use; another 26% produce heat only.
 - Just 4% of wastewater treatment plants upgrade biogas to RNG—but those larger facilities account for 13% of all wastewater-sector biogas captured each year.

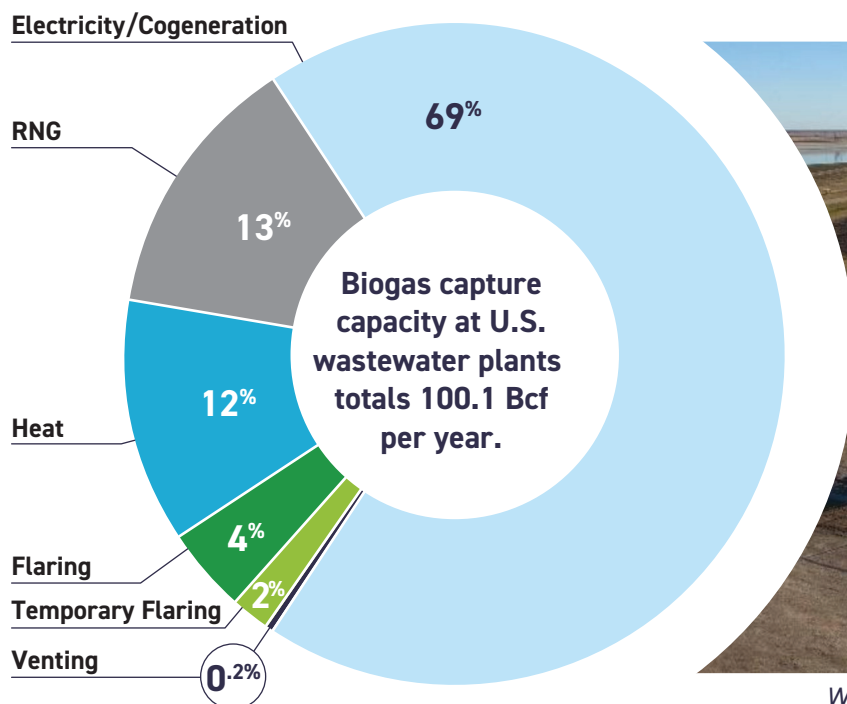
Key Takeaway

There is a huge potential for the wastewater sector to capture more biogas and use it to produce energy—supplying renewable American energy to local communities and businesses.



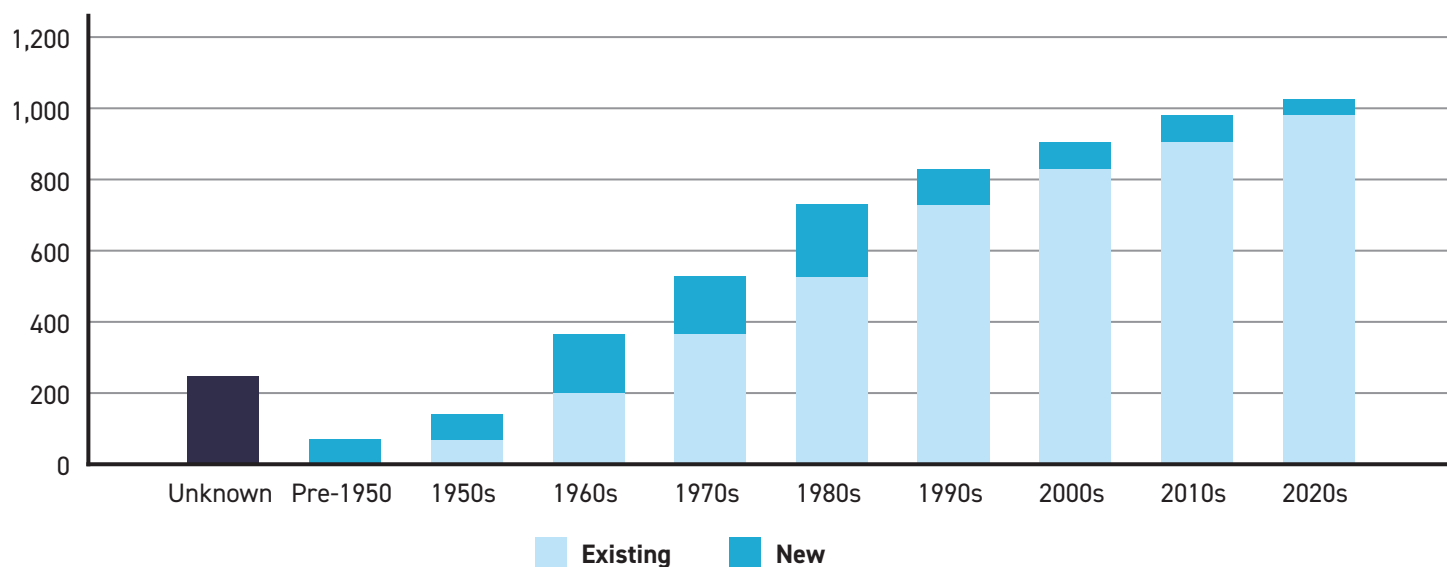
In late September 2026, The American Biogas Council will release a nationwide survey of approximately 5,000 wastewater treatment plants processing at least 1 million gallons per day (MGD).

Primary End-Use of Biogas Captured at U.S. Wastewater Treatment Facilities (August 2026)



Warrior Wastewater Treatment Plant Biogas Project
— City of Dodge City, Kansas

Biogas Capture Systems at U.S. Wastewater Plants by Year of Commencement



Beyond energy

- Sludge digestion reduces the volume requiring handling and disposal by about 50%.
- Digested material can be used as soil fertilizer.
- Capturing biogas prevents methane from entering the atmosphere and puts that energy to beneficial use.
- Older facilities that currently flare biogas may represent opportunities for additional energy recovery and emissions capture.