News Release

Energy Vision/Argonne Study Shows
Rapid Expansion of the US Renewable Natural Gas Industry

[New York, NY -- Dec. 18, 2020] Sustainable energy NGO Energy Vision has released its most recent joint [assessment of the US renewable natural gas (RNG) industry](#), performed on behalf of the U.S. Department of Energy's Argonne National Laboratory. The assessment, which consists of a database of current and projected RNG projects, shows rapid growth in RNG capacity and production nationwide.

It found the total number of RNG production facilities in the U.S. that are operational, under construction or planned increased by 42% -- from 219 in early 2019 to 312 by the end of 2020. That includes 157 RNG production facilities now operating (up 78% from 2019); 76 projects under construction (up 100%); and 79 projects in planning.

The 157 operational projects now producing RNG represent total production capacity of over 59 million MMBtu, the equivalent of over 459 million gallons of diesel – enough to fuel 50,000 refuse trucks (nearly 40% of the refuse trucks in the US). That represents a 30% increase in production capacity since 2019. And with 155 new RNG projects under construction or being planned, rapid capacity growth should continue in the years ahead.

Renewable natural gas (RNG), also known as biomethane, is made by capturing and refining biogases (mostly methane) that organic wastes such as food waste, farm manure and municipal wastewater emit as they decompose. Methane is a greenhouse gas 86 times more powerful than carbon dioxide over 20 years. Instead of allowing these biogases to escape into the atmosphere as these wastes break down, they are captured from landfills or in purpose-built "anaerobic digesters," and refined into pipeline-grade fuel.

Nearly identical chemically to geologic natural gas, RNG is a practical substitute for it. RNG can be used in virtually all the same applications, and stored and transported in the same infrastructure. "The crucial difference is that this is a renewable fuel - not a fossil fuel - that requires no drilling," said Energy Vision founder Joanna Underwood. "So instead of digging up methane from underground, RNG captures and makes beneficially use of methane gases that would otherwise escape and become potent climate warmers."

According to Argonne National Laboratory's GREET model, RNG produced from anaerobic digestion of food waste or dairy and hog manure is *net carbon-negative* over its lifecycle, including production, transport and use. "More GHGs are captured in producing the fuel than are ever emitted by the vehicles burning it," said Matt Tomich,

Energy Vision's president, "meaning that making and using RNG can result in lower atmospheric GHGs than if it were never made or used in the first place." As a transportation fuel, switching vehicle fleets from diesel to RNG derived from a food waste digester exceeds international 2050 GHG emissions goals (cutting emissions more than 80% below 2005 levels) and does so today -- not 30 years from now.

Potential domestic RNG production is estimated to be between 10 and 20 times greater than actual current production. Reaching that potential would have a significant impact on overall U.S. GHG emissions. Recent studies estimate that existing domestic sources could produce enough RNG to displace 10% of current US fossil natural gas production, or displace close to 25% of diesel fuel in transportation.

"RNG is a powerful tool for decarbonizing high-emissions, difficult-to-decarbonize sectors like transportation, manufacturing, and various thermal applications," said Tomich, "and it can reduce the climate impacts of the natural gas industry itself. It is also a strategy that directly addresses the significant fugitive methane emissions currently produced by the management of urban and agricultural waste streams. How much it can reduce climate impacts depends on how much we can produce, and how fast. This new assessment shows RNG ramping up quickly, and growth is likely to keep accelerating."

Marianne Mintz, who managed the project for Argonne National Laboratory, commented, "RNG can decarbonize a significant share of the energy consumed by heavy-duty vehicles as well as by other users of geologic natural gas today, with little or no change required to existing infrastructure. This realization is fueling growth in the number and average capacity of projects producing RNG, in the range of markets into which it is being introduced, and in overall demand for the fuel."

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NOTE TO EDITORS AND PRODUCERS: The RNG assessment is posted [here](). Sources quoted in this release are available for interviews on request. To arrange one, or for more information, please contact Stephen Kent, skent@kentcom.com, [914-589-5988]().

[Energy Vision]() is a non-profit organization whose mission is to research, analyze and promote technologies and strategies that are viable today and required to transition to a sustainable, low-carbon energy and transportation future.

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