News Release

For immediate release

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Energy Vision/Argonne Analysis Shows Growth in US Renewable Natural Gas Industry

Expanding RNG Could Be a Key Strategy for Cutting Methane Emissions and Tackling Climate Change

[New York, NY – March 4, 2022]   The sustainable energy NGO Energy Vision today released its latest 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 compiles a database of current and projected RNG production facilities. It shows rapid growth in RNG production nationwide.

That growth is evidence that RNG could be an important strategy for cutting methane, a potent greenhouse gas. The US and over 100 other countries have committed to cutting methane 30% by 2030 under the Global Methane Pledge.

Decomposing organic wastes (landfill, wastewater, animal manure, food waste) account for 30% of all anthropogenic methane emissions in the U.S. These wastes are the feedstocks for RNG. Energy Vision estimates that capturing and processing half of the existing feedstocks into RNG would get the U.S. halfway to its Methane Pledge goal.

How RNG Is Produced

RNG, also known as biomethane, is made from the methane biogases which are emitted as organic wastes such as food waste, livestock manure and municipal wastewater decompose. Instead of allowing these biogases to escape into the atmosphere, RNG production involves capturing the methane from landfills or in tanks called "anaerobic digesters" and refining it into the lowest carbon fuel available for transportation today. According to Argonne National Laboratory's GREET emissions modeling tool, RNG produced from anaerobic digestion of food waste or farm manure is net carbon-*negative* over its lifecycle of production, transport and use; i.e., more greenhouse gases are captured in producing the fuel than are emitted by the vehicles burning it.

New Data Shows Rapid RNG Expansion

The new assessment finds the number of RNG production facilities in the U.S. that are operational, under construction or planned has increased by 33.5% year over year (from 313 in December 2020 to 418 by the close of 2021). That includes 230 RNG production facilities

now operating (up 46% from 2020), 108 projects under construction (up 42%), and at least 80 projects in various stages of planning.

The 230 operational projects can produce enough fuel to displace nearly 574 million gallons of diesel fuel – enough to power 63,800 refuse trucks per year (35% of the refuse trucks in the US). That represents a 24% increase in production capacity since 2020. And with 188 new RNG projects under construction or being planned, rapid capacity growth should continue in the years ahead.

Methane as a Key Factor in Climate Change

Methane is 86 times more powerful than carbon dioxide as a climate warmer over a 20-year timespan, and scientists and policymakers in the last year have reevaluated its importance as a factor in climate change.

The August 2021 report by the Intergovernmental Panel on Climate Change (IPCC) found that methane has caused at least a third of global warming. In January 2022, new satellite data showed a record rise in methane, with annual increases doubling in the last few years. Atmospheric methane levels are at an 800,000-year high and rising rapidly. The most recent IPCC report, issued this week, warned that methane releases from thawing Arctic permafrost could further accelerate global warming.

A 2021 UN Global Methane Assessment found that cutting methane emissions 45% by 2030 would keep us within the Paris agreement target of limiting global warming to 1.5 degrees Celsius. At the COP26 climate summit in November, the US announced the EPA would issue new regulations to stop methane leaks from oil and gas operations and other sources, and launched a Global Methane Pledge, which commits the U.S. and over 100 other signatory countries to cutting methane emissions 30% below 2020 levels by 2030.

RNG as an Emissions-Cutting Strategy

Ramping up RNG production and use would have an outsized impact on cutting overall U.S. GHG emissions, and on methane emissions particularly.

Domestic RNG production potential is estimated to be between 10 and 30 times greater than current production. Realizing this potential by better managing half of US organic waste streams (including landfills, wastewater, animal manure, and food waste) and transforming them into RNG could cut U.S. methane emissions 15%, fulfilling half of the U.S. Methane Pledge goal.

Realizing U.S. domestic RNG resource potential would also generate enough fuel to displace over 25% of current on-road diesel demand (>10 billion gallons/yr), cutting overall GHG emissions (CO2e) by an estimated 300 million metric tons annually on a lifecycle basis.

Switching heavy-duty vehicles from diesel to RNG fuel would result in deep GHG emission reductions overnight. Diesel-powered fleets that convert to RNG will meet and exceed the international goal to cut lifecycle GHG emissions 80% by 2050, and it will do so not 30 years from now, but today.

Matt Tomich, president of Energy Vision, said "Expanding RNG production in the US will be critical in meeting our Methane Pledge, as it is the most effective strategy for cutting methane emissions from our vast organic waste streams and agricultural activities. The more RNG we produce, and the faster production ramps up, the greater the climate benefits will be."

"RNG can decarbonize a meaningful share of the fuel consumed by heavy-duty vehicles," said Marianne Mintz, who manages the project for Argonne National Laboratory. "This new Energy Vision assessment shows how rapidly RNG production is ramping up to meet that challenge."

"We're getting serious about stopping fugitive methane emissions from the fossil fuel industry," said Joanna Underwood, Energy Vision's founder. "That's critical, but oil, gas, and coal account for only 37% of US methane emissions, compared to 53% from organics and agriculture. There are literally millions of leaks in fossil fuel infrastructure to plug up. By comparison, there are a few thousand major sources of methane-emitting organic wastes. We know where they are and we can address them now by producing RNG. That would create tens of thousands of new permanent jobs -- a win-win situation."

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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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