



## **Government and Business Leaders Helping Scale Up Renewable Natural Gas as a Powerful Climate Solution Honored by Energy Vision**

New York, NY - October 24, 2016 (www.investorideas.com newswire) Leaders in the field of ultra-low carbon renewable natural gas (RNG) gathered at an October 13 awards event hosted by the sustainable energy non-profit Energy Vision, which promotes renewable, low-carbon energy and transportation solutions. The event marked Energy Vision's 10th anniversary.

RNG production and use for transport, electricity generation and heating is scaling up in the United States, with diverse projects coming online across the country. U.S. business and government leaders who are playing a pioneering role in accelerating this process were honored by Energy Vision with awards at the event.

RNG is the lowest carbon fuel available, and a powerful strategy for lowering GHG emissions. It is made from the biogases emitted as organic material in wastewater, agricultural waste, and food and yard waste decomposes. They are captured and refined into an ultra-low-carbon, low-emissions source of energy and transportation fuel. RNG has a fraction of the carbon footprint of diesel, gasoline or other petroleum-based fuels, and even of fossil natural gas. When made from food waste processed in anaerobic digesters and used as vehicle fuel, RNG can be net carbon-negative over its lifecycle.

"It's the same fuel that we get from the ground, but we don't have to drill for it," said Energy Vision founder and chair Joanna Underwood. "Making RNG avoids methane rising into the atmosphere, and methane is a powerful greenhouse gas. The U.S. fossil gas industry emits some 400,000 tons of it a year, but the methane outgassing from organic wastes is over 25 times that 11.5 million tons a year. If we want to tackle climate change, we have to work on capturing those gases, refining them and making the best use of them: fueling buses and trucks."

The power and torque heavy duty vehicles require are beyond what electric motors and batteries can deliver, but RNG has the energy density and the production potential to decarbonize heavy transport. Currently, although they are only 4% of U.S. vehicles, buses and trucks use 24% of all road fuel mainly in the form of petroleum-based diesel. With adequate incentives, 25-50% of this fuel could be displaced with renewable, ultra-low-carbon RNG. It already has about 20% of the market for natural gas as a transport fuel, and that share is growing fast. As production grows, it has the potential to significantly reduce the U.S. heavy transport sector's reliance on diesel and gasoline.

Awardees recognized at the Energy Vision event for their leadership in helping advance RNG in the US include Impact Bioenergy, AgEnergy USA and EDF Renewable Energy's Heartland Biogas project, Louisiana's St. Landry Parish Solid Waste Disposal District and BioCNG, LLC, and the U.S. Environmental Protection Agency.

Seattle-based Impact Bioenergy was the first company to commercialize a micro-anaerobic digester capable of producing RNG. Costing just \$60,000, it will enable small businesses, schools and other small-scale operations to turn their organic wastes into RNG on site. The company installed the first one in the U.S. at Seattle's Fremont Brewing Company, and has recently installed the second one Bainbridge Island, Washington. It will start installing the third, for Seattle Tilth in Auburn, Washington, in November.

"We can get a full system, known as a HORSE (High-Solids Organic Waste Recycling System with Electrical Output), going from organic waste to energy in about a day," said Jan Allen, president of Impact Bioenergy, as he accepted the Energy Vision award, "It only takes up about a parking space. We decided to do something completely different and go micro-scale rather than macro. It turned out to be one of those rare ideas that connects so many

things: food waste recycling, zero waste diversion, renewable energy, farm-to-table supply chains, local jobs and more. We are now working to bring micro-digesters to New York, and working with Energy Vision to use the HORSE to help push RNG vehicle fueling to a smaller scale."

At the other end of the spectrum is Heartland Biogas, a \$100 million anaerobic digester project located outside Denver, which also won an Energy Vision award. The largest project of its kind in the world, it was developed by AgEnergy USA and operated by EDF Renewable Energy. It produces RNG, high-quality compost and liquid fertilizer from local organic waste streams, which include manure from 10,000 dairy cows, food waste from the greater Denver region (including Boulder) and a stream of consumer products. Hundreds of tons of organic materials move through this state-of-the-art facility daily which otherwise would be discarded as waste. The RNG fuel that Heartland produces is sold under a 20-year contract to the Sacramento Municipal Utility District to generate power, while the compost and liquid fertilizer are sold to local farmers.

"The financial industry is looking at this, we've gotten a lot of attention already," said Jim Potter, President, AgEnergy USA. "Europe already has several thousand anaerobic digesters, the U.S. has a couple of hundred. So there's a real opportunity to invest in digesters here. It's a strategy that will help decarbonize our energy markets. We have plans to build other digester facilities outside of Philadelphia, New York and Boston."

A third Energy Vision Award went to South Central Louisiana's St. Landry Parish Solid Waste Disposal District for undertaking one of the first landfill gas-to-RNG demonstration projects in the U.S., which is now a model for other small and medium-sized communities.

In 2009, anticipating how it might get out in front of pending regulations the EPA was going to place on methane leakage from landfills, the District voluntarily installed a landfill gas capture system. "We then started exploring how we could use this captured gas" said Katry Martin, Executive Director of St. Landry Parish Solid Waste. Working with BioCNG, a gas cleaning company, the District began producing RNG and using it to power its police fleet and other municipal vehicles. By 2015 the District had expanded and automated these operations, and had enough RNG to refuel a nearby Progressive Waste refuse truck fleet. "We've been doing this for a year now, and the numbers look very good," Martin said. "It's a closed loop, meaning the RNG is both made and used locally: local organic waste streams are made into fuel for the refuse trucks, which collect more waste to make more fuel."

Energy Vision also announced that its fourth award would go to the U.S. Environmental Protection Agency. "We want to recognize EPA's leadership (and the contribution made by EPA's Office of Transportation and Air Quality) for including RNG in its Renewable Fuel Standard (RFS2), said Energy Vision President Matt Tomich."It has been one of the biggest policy drivers accelerating production and use of RNG as a transportation fuel." Under RFS2 RNG producers get \$1 credit per gallon produced. Prior to the credit, in 2013, total RNG production in the US displaced 20 million gallons of petroleum transportation fuel. By 2015, that number rose to 90 million gallons, and almost 20% of natural gas used in transportation was waste-derived RNG. "The RFS2 is an excellent example of federal policy that is creating the kind of changes that will be needed to build a sustainable future," Tomich added.

NOTE TO EDITORS AND PRODUCERS: Energy Vision awardees and leaders quoted above are available for interviews. Photos of the awardees and the event are available on request. For interview requests, photos, or more information, please contact Stephen Kent, [skent@kentcom.com](mailto:skent@kentcom.com), 914-589-5988.