

Roeslein Alternative Energy – Locust Ridge case study

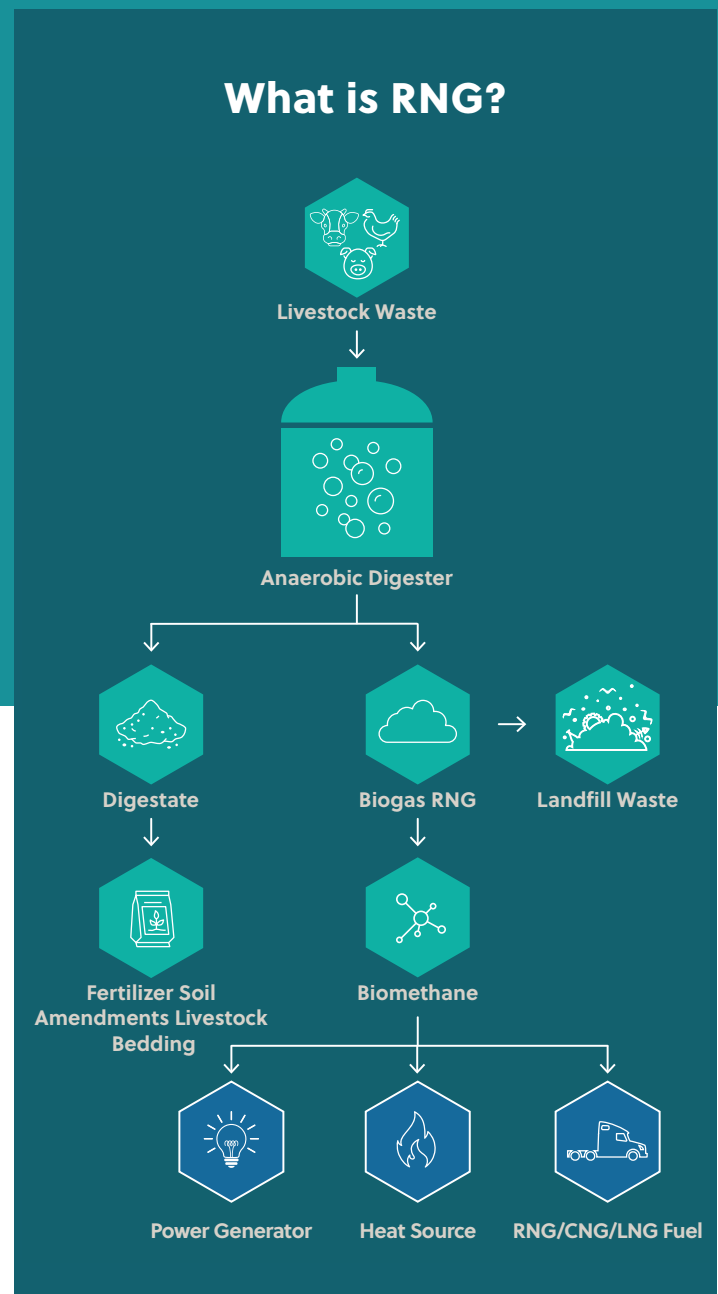
Location: Missouri, United States

Did you know livestock waste can be a source of revenue and substantially reduce our carbon footprint?

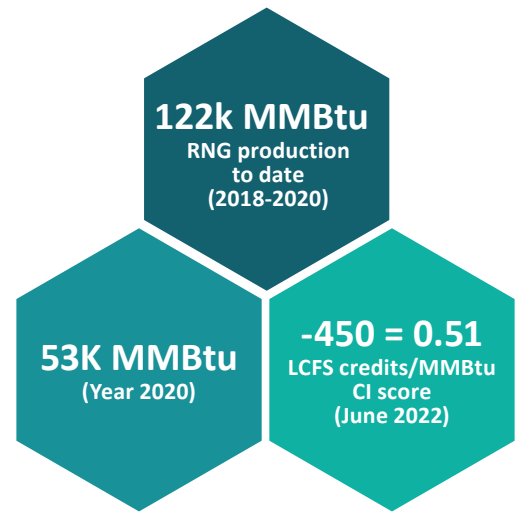
USD 5.1 million in 2020

Learn about how our Mobile Pipeline solutions play a key role in helping companies like Roeslein Alternative Energy (RAE) to generate revenue by converting livestock waste into carbon negative renewable natural gas (RNG), also known as biomethane.

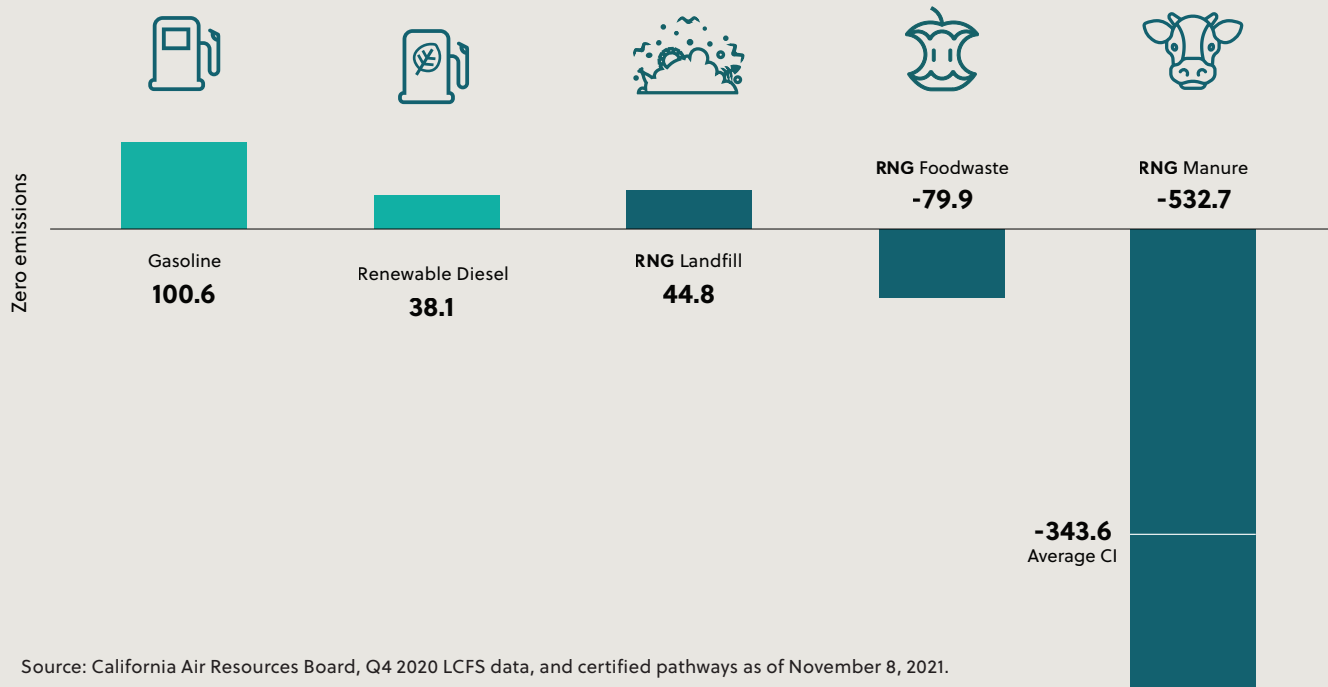
How do you turn waste into RNG? With its proprietary system of technologies, United States based company, RAE is capturing gases emitted from livestock waste through the natural process of anaerobic digestion and generating revenue at the same time. Anaerobic digestion produces methane and carbon dioxide (CO₂), called biogas. The biogas is captured then processed, separating the methane and CO₂. The processing allows developers and operators to keep the methane and sell it as RNG (Biomethane) which can then be injected into the natural gas grid.



The environmental benefits: Methane is one of the most harmful greenhouse gases (GHG) It is 75 times more damaging to the environment than CO2. This is why using RNG is critical to help reduce GHG emissions. The RNG at Locust Ridge is derived by capturing the methane naturally produced from livestock waste and converting it into pipeline quality gas, delivering carbon negative results. Up to -532.7%, depending on the source.



Carbon intensity



The revenue source: In 2018, RAE partnered with Locust Ridge Farm and formed Monarch Bio Energy to leverage RNG production and reduce the environmental impact of farms while generating revenue for Monarch. For example, in California, the Low Carbon Fuel Standard is an incentive-based program requiring a reduction in carbon intensity (CI) of transportation fuels. Companies like RAE and Monarch Bio Energy

generate revenue by selling carbon credits derived from RNG to companies who refine or distribute transportation fuels in California and are required by the LCFS program to reduce the CI of transportation fuels sold in California.

But how do you transport RNG from farm to pipeline?

No pipeline. No problem.

“For our project, we wouldn’t have achieved the success we have without the partnership with Hexagon Agility Mobile Pipeline.”

Chris Roach,
President of Roeslin Alternative Energy

The enablers: We are driving the adoption of RNG to cost effectively combat climate change. Our Mobile Pipeline modules are a clean energy solution that allows users who lack pipeline infrastructure to cost effectively transport RNG to a centralized injection facility where RNG from multiple farms may be injected into the existing natural gas pipeline infrastructure.

REPowerEU the European Commission program that targets cutting dependence on Russian gas. 35bcm is targeted to come from biomethane, of which 16bcm is expected to be derived from animal manure. The Roeslin project is a great reference for Europe's next steps.

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