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‘The industry’s holy grail’: Project Canary forms to find methane leaks, prove oil and gas operates responsibly

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A Colorado startup with a politically connected leader believes it has the technology to help oil and gas production companies and natural gas pipelines limit their pollution emissions and be able to claim they operate responsibly.

Project Canary’s business is real-time monitoring for leaks of methane and other emissions that can damage the climate and have let valuable energy escape that could be sold.

But the company says its biggest breakthrough is being able to do it cheaply enough that companies have little reason to say no.

“The industry’s holy grail has become to have rugged, affordable and reliable continuous monitoring,” said Chris Romer, co-founder and CEO of the business. “We really are the first to accomplish that.”

Romer is a former Colorado state senator and a son of former Gov. Roy Romer. After an unsuccessful run to be Denver’s mayor, he co-founded Denver-based workforce development startup Guild Education with his daughter.

Oil and gas companies today use a combination of expensive handheld infrared cameras, overflights by drones or helicopters and temporarily stationed emissions-detection trailers to find leaks. Continually monitoring wells is rare because the instruments are expensive.

Project Canary says its monitoring stations, mounted on a pole topped by a birdhouse with a solar-panel, can take readings every two minutes and transmit encrypted wind and detailed emissions data several times an hour to Canary Project computer servers over mobile phone networks or by satellite.

The company teamed with Golden-based Lunar Outpost, which makes environmental monitoring technology for NASA, city governments and others, to make the Project Canary birdhouse monitors capable of detecting methane, volatile organic compounds and other emissions in the parts-per-billion.



A Project Canary emissions-monitoring device shown near an oil and gas drilling rig.

Romer likens Project Canary to having smoke detectors in a building – they quickly alert the owner to a problem.

The industry’s current standard of periodic inspections for thousands of oil and gas wells and miles of natural gas pipelines, required in many cases every 180 days, can mean leaks go undetected for weeks. Project Canary’s system can alert companies something is leaking within minutes, Romer said.

Identifying and being able to respond to leaks that quickly means being able to tamp down on emissions and avoid losing valuable methane, the main ingredient in natural gas, which is also said to be 80 times more damaging to the climate than carbon dioxide emissions.

Project Canary has more than 700 monitoring stations in use in six U.S. oil and gas basins today, Romer said. They’re monitoring the wells and pipelines for 12 companies exploring for oil and natural gas, or that run natural gas pipelines, he said.

One of its customers is Denver-based ARB Midstream, which operates one of the largest independent networks of pipelines in northeast Colorado.

Adam Bedard, ARB Midstream’s co-founder and CEO, predicts in a Project Canary press release that monitoring “will not only improve our operations and efficiency, but will also help the oil and gas industry sustain its social license to responsibly develop hydrocarbons.”

Project Canary incorporated in August 2018.

It’s backed by about \$2 million invested by friends and family, Romer said. It employs six people full time and has several contractors helping build the business too.

Project Canary’s core instrument, which can measure emissions in the part-per-million, costs \$250 to set up and \$75 a month for monitoring. Most multi-well sites, like those typically found in Colorado’s Denver-Julesburg Basin, require five or six birdhouse stations to monitor the site, Romer said.

The joint venture with Lunar Outpost means the monitoring stations can be several times more sensitive. Pricing for that version, called the Canary S, is more expensive but hasn’t yet been determined, Romer said.

Project Canary formed as a public benefits corporation, or “B Corp.,” which means that it pledges transparency and to work for social and environmental responsibility. It’s a statement to show the company is serious about making its business be credible, third-party emissions data.

He also predicts it will be good business. Being able to claim themselves verified as a “responsibly sourced gas” seller will allow a company to charge a premium, because wholesalers and utilities want to prove to Wall Street and policy makers that their energy is environmentally safe to use, Romer said.

“It’s part of our mission to prove there can be responsibly sourced gas,” he said.

Project Canary and Lunar Outpost’s joint venture includes a 20-year marketing and intellectual property agreement covering the Lunar Outpost technology’s use in oil and gas applications.

Lunar Outpost still independently sells its air monitoring technologies for aerospace and other uses.