Dairy biogas heads for the mainstream

By John Cox Bakersfield Californian, Thursday, Dec 17, 2020

Methane produced at Central Valley dairies is about to take a mainstream role in California energy alongside solar and wind even as the state wrestles with questions about whether the fuel advances the state's environmental and climate-change objectives.

On Thursday the California Public Utilities Commission approved a pilot project allowing Southern California Gas Co. and its sister utility in San Diego to begin offering what's called renewable natural gas to residential, business and industrial customers. When it kicks off in spring it will be the first time that option has been available in the state.

The commission also approved \$32.5 million in subsidies to help cover pipeline costs for dairies producing RNG. That adds to the hundreds of millions of state taxpayer money invested in recent years to help dairies capture, refine and market a potent greenhouse gas that would otherwise vent to the atmosphere.

Dozens of dairies across the valley, including several in Kern, have built extensive systems that produce RNG that is chemically indistinguishable from regular natural gas. Most of it now serves as transportation fuel for large trucks, replacing diesel fuel that generates greater pollution.

Environmental groups cite several concerns with RNG. As methane it emits greenhouse-gas pollution when combusted, they note, and when used for heating and daily cooking it lowers indoor air quality.

Some also see it as incentivizing dairies to grow and thereby increase degradation of local groundwater and air quality.

"(State policymakers) are doing it kind of on the backs of the Central Valley communities and treating them as expendable," said Blanca Escobedo, policy advocate with the Fresno-based Leadership Council for Justice and Accountability. She called RNG "pseudo clean energy."

Not all RNG is produced on dairies: Some is derived from ag waste and plants and some comes from landfill diversion projects. But increasingly it is made by clusters of dairies across the valley.

Dairies cover their manure lagoons with huge tarps — "digesters" — that gather gas wafting from herd excrement. It ferments and goes through a refining process. When enough dairies are physically joined together, RNG can be profitably injected into natural gas pipelines, giving dairies an extra revenue stream.

By industry estimates, there are close to 40 digesters operating in the state. Nearly 100 more are set to launch by 2024.

The infrastructure required is extensive and costly enough that RNG is not price-competitive with natural gas produced from deep underground. Without the state's financial support, estimated at more than \$600 million since the early 2000s, RNG projects probably wouldn't ever be built.

State officials have viewed the money as well-spent because without digesters methane from manure would continue contributing heavily to the state's overall carbon footprint.

There is some question as to whether that approach will continue as the California Energy Commission prepares next year to revisit its policies, based on directives from the state Legislature, in support of RNG.

"As California continues to decarbonize its economy through electrification of end uses, increased use of RNG, hydrogen and other fuels, it's essential to comprehensively discuss the strategy to transition away from fossil natural gas," the agency's executive direct, Drew Bohan, said in an emailed statement.

The CPUC voted unanimously Thursday to give dairies \$40 million in state cap-and-trade revenues so they can build pipelines bringing RNG to market. No individual project can get more than \$5 million.

In the other vote, all but one commissioner voted in favor of the pilot project allowing customers to voluntarily pay \$10 to \$50 per month for RNG. Participants would have to commit to the program for a full year.

SoCalGas customers would be agreeing to pay close to five times what they now pay per unit of natural gas, maybe more depending how many customers participate in the program. That's similar to an existing program allowing consumers to pay extra for renewably sourced electricity even though the product purchased is the same.

The company said RNG is the only renewable energy source that can be classified as carbon negative, meaning its lifecycle is seen as reducing greenhouse gas emissions.

"The gas system complements and is a necessary facilitator of decarbonization," the company said in a news release.

The commissioner who voted against the project, Martha Guzman Aceves, objected on the basis that dairy RNG's benefits remain questionable.

Her position was supported by San Francisco-based Earthjustice, whose staff attorney Matt Vespa said transitioning toward electric appliances and away from gas "would do do far more for the environment and our health than this kind of ineffective biogas program."

Dairy industry representative Michael Boccadoro was cool to the utilities' pilot program. Because the transportation sector already uses so much RNG, he said, up to half the program's RNG would have to come from outside the state, thereby benefiting faraway dairies at the expense of California ratepayers.

He defended dairy digesters as having big environmental benefits even as he acknowledged they do not address all impacts of dairy and farming.

Even so, he was skeptical the two utilities participating in the pilot would be able to enroll large numbers of customers, given that they'd essentially be agreeing to pay a lot more money for the same molecule they've always used.

"I'm not sure people are going to adopt this widely," he said.

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Why we urgently need to phase out polluting cars

By Destiny Rodriguez

I live in an area where big polluting trucks are far more common than electric vehicles (EVs), but public support for policies to shift away from polluting vehicles is not. The transportation sector is responsible for roughly 40% of California's carbon pollution and for much of the air pollution in the region where I live. Despite widespread anti-regulatory sentiment in my region, as a Latinx woman who has lived in the Central Valley of California for almost all of my life, I support Gov. Gavin Newsom's executive order to phase out polluting gasoline-powered vehicles.

The above-mentioned order directs the California Air Resources Board and other agencies to develop rules, regulations and interim steps leading up to the 2035 cessation of new gasoline car sales. Two important things to note: 1) Communities should engage in this process to ensure that lower-income drivers can afford to replace their vehicles with clean cars; 2) No gasoline-powered cars will be taken from anyone. Even after 2035, people will still be able to drive gasoline cars. By that time, it is highly likely that gas cars will be obsolete and fewer people will be driving them.

Polluting cars have disproportionately impacted the health and safety of Latinos for far too long. Latinos breathe 40% more particulate matter than Caucasian Californians, according to a study by the Union of Concerned Scientists (UCS). Kern County produces 70% of the oil in California and 1% of the world's total oil production. Within the Central Valley, these points of extraction and processing of oil and gas are adjacent to many low-income communities of color, including Latinx communities.

Approximately 5.4 million Californians live within a mile of one or more of over 84,000 existing oil and gas wells. Communities of color make up nearly 92% of the 1.8 million people living near drilling in heavily polluted areas. It is irresponsible to continue this way. We can choose a different path — with public investments that will generate more jobs and in turn, create healthier communities.

Phasing out gas-powered vehicles has economic benefits for lower-income residents as well. Many independent studies, including a recent one from "Consumer Reports," confirm that the lifetime cost of

EVs is lower than comparable gasoline cars. In the long run, they are cheaper to maintain because they have fewer moving parts than a conventional diesel/petroleum car. Electric vehicles do not have expensive exhaust systems, starter motors, fuel injection systems, radiators and many other parts that aren't needed in an EV.

If the upfront purchase price of Electric Vehicles is an issue, there are statewide and local incentive programs that help make EVs more affordable for the average family. There are several clean vehicle incentive programs and rebates for Californians from programs including the California Air Resources Board's Clean Vehicle Rebate Program, Plug-In America, and Drive Clean San Joaquin, to name a few.

The Greenlining Institute, which advocates for making clean transportation accessible to low-income communities, has compiled information on many of these programs.

The state must also take responsibility for prioritizing more charging stations in rural and lower-income areas. Having a proper charging infrastructure in place is critical for a clean vehicle transition. Of course, this is not going to happen overnight, but we must set bold targets, accelerate timelines and lay the groundwork now for a clean and safe transportation system that serves us all. If we work together, we can ensure equal access to clean vehicles for those most affected by air pollution and climate impacts and least responsible for them.

The Climate Center is working to address sustainable mobility with a goal to achieve a 70 to 85% drop in vehicle emissions by 2030. To do this we need a transportation system that is not dependent on fossil fuels. It must be equitable, accessible, affordable, safe, and clean and it must include public participation in the decision-making process. Support The Climate Safe California Campaign, which calls for accelerating existing state policies to better align with the science and rapidly worsening climate reality.

We have the solutions and technologies today to help solve the climate crisis. By addressing these problems, we are creating pathways to solutions that are much needed for low-income and communities of color.