Unleaded, diesel or... Cow poop? New fuel source promises lower emissions for Valley big rigs

By Kyra Haas

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Tulare County is No. 1 in dairy.

That makes it top-ranked for something else, too: cow poop.

Methane from that stinky, abundant resource is increasingly finding a new role in fueling dairy production, as its emissions are captured, processed and converted to renewable natural gas.

Western Milling, a company that produces and supplies agricultural products, is switching 30 of its about 100 trucks to "Cow Natural Gas" — a move discussed Tuesday at the World Ag Expo in Tulare along with the San Joaquin Valley Air Pollution Control District, SoCalGas and Cummins Westport Inc.

Western Milling sees the transition to renewable natural gas as positive for all those involved, "from the dairies to the farmers and all the way through there," CEO Kevin Kruse said.

"We think it's a great thing for the environment, a great thing for California and a win-win all the way around," he said.

Heavy-duty trucks are some of the biggest contributors to transportation pollution in California. In the state, more than 80% of smog-forming pollution and 40% of greenhouse gas emissions are from transportation.

Cars and trucks also contribute significantly to particulate matter pollution in the San Joaquin Valley, accounting for almost 50% of the measured airborne particulate pollution, according to the California Air Resources Board.

Kruse started looking into cleaner fuels about five years ago, but the power wasn't yet there, he said.

Since then, the use of renewable natural gas as fuel for trucks and buses has greatly expanded, growing by nearly 600%, according to SoCalGas.

The power is there now.

"Our drivers are loving it," he said. "It's cleaner. No smell, no emissions."

California also allows these low-emission trucks to haul an additional 2,000 pounds, another added benefit, he said.

Western Milling is able to start transitioning its fleet to renewable gas in part because of the air district's Truck Replacement Program, which provides some funding, especially in low-income areas more directly affected by poor air quality.

"We are proud to support local companies investing in switching their diesel-fueled trucks to clean natural gas trucks," said Samir Sheikh with the air district.

SoCalGas is also looking to incentivize more fleets to switch to natural gas, having helped replace about 550 diesel trucks with natural gas trucks since 2014. Each replacement is the equivalent to taking 57 passenger cars off the road, according to the utility.

"We offer a truck loan program where drivers can come and test out and try out the trucks before choosing to buy," said Gillian Wright, senior vice president of customer relations at SoCalGas. "Half of our truckers who've tried out our truck loan program have chosen to buy CNG trucks."

The natural gas trucks cut greenhouse gas emissions by as much as 80% and practically eliminate smog-forming pollutants.

Western Milling also plans to open a public fueling station this year in Goshen, for both trucks and passenger vehicles, Kruse said. SoCalGas also operates 15 public fueling stations.

Wright said on her way to the Expo, she saw the price of renewable natural gas at SoCalGas's newest fueling center off Highway 99 in Bakersfield: \$1.97.

"How's that sound, compared to diesel that's going for \$3.50?" she asked. "You can see why people are making the switch."

SoCalGas, the San Joaquin Valley Air Pollution Control District, and Western Milling Unveil First of Nearly 30 New Ultra-low Emissions Trucks During World Ag Expo

Near-zero emissions natural gas trucks reduce emissions linked to climate change By 360 Feed Wire

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Los Angeles - Southern California Gas Co. (SoCalGas), officials from the San Joaquin Valley Air Pollution Control District and Western Milling, one of the largest and most diverse manufacturers and suppliers of nutrient solutions for plants, animals, and people in the U.S., unveiled the first of a planned 30 new ultralow emissions trucks the company will deploy at its operation in Goshen, Calif. The near-zero emissions natural gas trucks will be fueled with renewable natural gas (RNG) that can virtually eliminate smog-forming pollutants and reduce greenhouse gas emissions linked to climate change by as much as 80 percent. These new trucks are powered by a 12-liter Cummins Westport engine, the first engine of its kind to meet the California Air Resources Board (CARB) optional low NOx standard. In addition, Western Milling revealed plans to open a new public fueling station supplying renewable natural gas in the city of Goshen later this year.

"Through the use of heavy-duty renewable CNG trucks, we're becoming more sustainable while simultaneously creating value for our employee owners," said Kevin Kruse, CEO at Western Milling. "It's good for everyone involved; us, our customers, and the communities in which we serve."

"The combination of new near-zero-emission natural gas engine technology and RNG provides the single best opportunity to achieve immediate and substantial NOx and GHG emission reductions in the on-road heavy-duty transportation sector," said Tom Swenson, business development manager at Cummins Westport. "We are proud to support a near-zero emissions strategy for our customers."

Western Milling's investment in its new natural gas trucks was supported by the San Joaquin Air Pollution Control District's Truck Replacement Program, an initiative to replace on-road diesel trucks with cleaner technology units or to expand fleets with the cleanest technology available – particularly in low income and disadvantaged communities experiencing greater air quality impacts. The program provides funding under its Standard Replacement, 2010 Compliant Replacement, and Fleet Expansion program options.

"As a public health agency serving the San Joaquin Valley, we are committed to improving the health and quality of life for all Valley residents through efficient, effective and entrepreneurial air quality management strategies. We are proud to support local companies investing in switching their diesel fueled trucks to clean natural gas trucks," said Samir Sheikh, executive director of Air Pollution Control Officer for the San Joaquin Valley Air Pollution Control District. "We applaud Western Milling's commitment to clean air and public health."

"At SoCalGas we are committed to raising awareness on how near-zero emissions natural gas trucks can help improve air quality and reduce greenhouse gas emissions," said Gillian Wright, senior vice president of customer relations at SoCalGas. "A huge congratulations to Western Milling as they invest in their future and cleaner air for the San Joaquin Valley."

In California, transportation account for more than 40 percent of greenhouse gas emissions and 80 percent of smog-forming pollution in the state, with heavy-duty trucks among the largest polluters. In the San Joaquin Valley, car and truck emissions make up about half of all measured airborne particulate matter, according to CARB.

Over the last five years, RNG use as a transportation fuel for heavy-duty trucks and buses has increased almost 600 percent, helping displace over seven million tons of carbon dioxide equivalent. That's equal to the emissions from more than a million homes' electricity use for one year.

RNG is not a fossil fuel. It is a renewable form of energy produced from the methane emissions at dairy farms, wastewater treatment plants, landfills, and other waste streams. Depending on its source, RNG can be carbon negative, meaning it takes out more emissions from the atmosphere than it emits when used as a fuel. Capturing the methane from these waste sources and converting it into RNG keeps greenhouse gas emissions from entering the atmosphere and contributing to climate change and reduces the use of fossil fuels.

SoCalGas has worked with fleet owners to secure millions of dollars in incentive funding for the replacement of diesel trucks with cleaner, new near-zero emissions natural gas trucks. Since 2014, the utility has helped truckers and trucking companies replace more than 550 diesel trucks with clean natural gas trucks. That equates to taking about 30,000 cars off California's roads. Recently, SoCalGas supported a Los Angeles-Long Beach Port trucking company with their efforts to replace its entire 40 diesel truck fleet with near-zero emissions natural gas trucks.

Each new near-zero emissions natural gas truck that replaces a diesel truck is the equivalent of taking 57 passenger cars off the road.

Last month, SoCalGas opened a new RNG fueling station in Bakersfield. The new RNG station extends the network of clean natural gas stations across a key regional goods movement corridor in the San Joaquin Valley, which experiences the worst particulate matter pollution in the state, according to CARB. SoCalGas currently operates 15 public RNG fueling stations across its service territory.