

Climate change rules to start hitting dairies

John Cox, Bakersfield Californian, 4-12-16

Kern County dairies will be asked to upgrade their manure management practices, if they haven't already, as part of a strategy proposed this week for cutting California's emissions of methane and other short-lived but powerful greenhouse gases.

A draft document released late Monday by the California Air Resources Board calls for a 75 percent reduction in methane emissions from the state's dairies by 2030. The proposal included an analysis of existing technologies it says can help dairies reach that goal.

The board also called for a 25 percent reduction in dairies' enteric fermentation emissions, commonly known as cow burps, by 2030. But because of a lack of experience in the field, the document proposes no concrete measures for achieving the goal beyond monitoring and supporting research.

Besides methane, the "short-lived climate pollutants" targeted in the draft include black carbon, or soot; and hydrofluorocarbons such as refrigerants and aerosols. Though less pervasive than carbon dioxide, these materials are considered much greater agents of climate change, pound per pound, representing a total of about 12 percent of California's greenhouse gas emissions.

Environmental groups applauded the proposed reductions as a positive step toward fighting climate change and improving the Central Valley's air quality.

"This is great news for our communities," Felipa Trujillo, a representative of the Committee for a Better Shafter, said in a news release. "The fact that there will be a mandatory reduction on the methane emissions speaks to the work that different groups and communities have done to pressure (the air board) to take these sorts of steps."

Local and state farming and dairy groups did not respond to requests for comment Tuesday.

Bakersfield-based California Bioenergy LLC, a company working with Kern dairies to convert their manure to fuel for sale, said the proposal will be well-received by industry so long as there continue to be financial incentives to offset the investments required to achieve emissions reductions.

"We don't want to put additional financial burdens on the dairy industry, which faces volatile and at times low milk prices," said the company's president, Neil Black, who noted he had not yet read the air board's proposal.

Some environmental activists expressed hope the proposal will lead to greater adoption of pasture-based dairy farming in the Central Valley, which for the most part relies on a more industrialized model. Pasture-oriented dairies, which are more common in Northern California, use manure as fertilizer and produce relatively little methane.

Air board officials said they did not expect to see widespread conversion of Central Valley dairies to the pasture model. Rather, they outlined two practical methane-reduction arrangements — sale of air quality credits, and production of biogas for electricity or natural gas vehicle fuel — whereby dairy farmers can make money reducing their emissions.

Some dairies have already moved to capture their herds' methane emissions, either for on-site power

generation or for processing and sale to utilities. In exchange, they may qualify for grants or credits from a variety of state and federal agencies.

This week's draft includes a lengthy economic analysis of the costs and potential revenues involved in various options for reducing manure methane.

Simply reducing dairy emissions without trying to resell methane is inexpensive but doesn't generally turn a profit, said one of the proposal's authors, science advisor Ryan McCarthy. On the other hand, he said, there's more money but greater financial risk in converting the gas into fuel.

Which approach dairies choose to adopt is up to them, he said, adding, "we're not at this point being prescriptive."

The proposal's release begins a months-long process of gathering public input on the strategy. Even after its adoption, expected in September or October, rules on exactly what dairies must do to comply probably won't be finalized for another couple of years.