Office of Senate Floor Analyses
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THIRD READING

Bill No: SJR 5
Author: Becker (D)
Amended: 8/19/25
Vote: 21

SENATE ENVIRONMENTAL QUALITY COMMITTEE: 6-0, 6/18/25
AYES: Blakespear, Valladares, Dahle, Hurtado, Menjivar, Pérez
NO VOTE RECORDED: Gonzalez, Padilla

SUBJECT: Enteric methane reduction solutions: cattle industries

SOURCE: Author

DIGEST: This resolution states California's commitment to advancing innovative solutions that reduce enteric methane emission while preserving the economic sustainability of California's cattle industries, among other things.

Senate floor amendments of 8/19/2025 explicitly state that consideration should be given to the voluntary use of feed additives deisgned to reduce enteric methane emissions.

ANALYSIS:

Existing law:

1) Directs California Air Resources Board (CARB) to implement a comprehensive short-lived climate pollutant strategy to achieve, among other goals, a reduction in the statewide emissions of methane by 40% below 2013 levels by 2030 SB 1383, (Lara, Chapter 395, Statutes of 2016). (Health and Safety Code (HSC) § 39730.5)

2) Requires CARB, in consultation with the California Department of Food and Agriculture, to adopt regulations to reduce methane emissions from livestock

and dairy operations by up to 40% below the dairy and livestock sectors' 2013 levels by 2030. (HSC § 39730.7)

3) Dictates that enteric methane emissions reductions be achieved only through incentive-based mechanisms until CARB, in consultation with California Department of Food and Agriculture (CDFA), determines that a cost-effective and scientifically proven method of reducing enteric emissions is available and that adoption of the enteric emissions reduction method would not damage animal health, public health, or consumer acceptance. (HSC § 39730.7)

This resolution:

1) Describes briefly enteric methane emissions from livestock, the variety of solutions that are under consideration for addressing them, and the challenges associated with implementing those solutions.

2) Makes claims about the potential impacts and considerations involved in marketing and selling cattle products vis-à-vis enteric methane reduction solutions.

3) States that California remains committed to advancing innovative solutions in enteric methane emission reduction and encouraging enteric methane emission reduction solutions, including consideration of voluntary incentives.

4) Urges the United States Congress to explore advancing innovative enteric methane emission reduction solutions, including consideration of voluntary incentives, and encourage their use.

Background

1) *Methane is a significant contributor to climate change.* Methane is considered a short-lived climate pollutant because it does not stay in the atmosphere as long as carbon dioxide does (it lasts about a decade vs. centuries for carbon dioxide). However, its much higher warming potential (28 times that of carbon dioxide when considered over 100-year timescales, 84 times over 20-year timescales) and continuous replenishment in the atmosphere (60% of methane emissions are estimated to be due to human activity) make it an important element in climate change mitigation strategies. Methane also degrades local air quality and contributes to ozone formation.

   The largest sources of methane in California are landfills, leakage from the oil

and gas sectors, and the dairy and livestock industries. CARB estimates that the dairy and livestock sector accounts for about 55%. Enteric methane from dairy and livestock constitutes about 30% of the state's methane emissions. Enteric methane is a by-product of the natural digestive process occurring in ruminant animals such as cattle. When microbes decompose and ferment food and fibers in the digestive tract of the animal, they release methane which is then released into the atmosphere.

2) *What are we doing about methane?* In 2016, the Legislature enacted SB 1383, which recognizes the immediate climate benefits of reducing SLCPs. In the 2017 Scoping Plan Update, the plan for achieving GHG reductions in the state, CARB described that SLCP reductions would account for about one-third of the cumulative GHG emissions reductions the state is relying on to achieve the statewide 2030 GHG emissions target established under SB 32.

   The 2022 Scoping Plan Update contained no such analysis of relative contributions to achieving the state's climate goals, but did state:

   "The state is expected to achieve roughly half of the SB 1383 targeted emissions reductions by 2030 through strategies currently in place. As directed by the Legislature under SB 1383, state agencies focused on voluntary, incentive-based mechanisms to reduce SLCP emissions in the early years of implementation to overcome technical and market barriers. *Under this "carrot-then-stick" strategy, incentives are replaced with requirements as the solutions become increasingly feasible and cost-effective*. *To meet legislated targets, more aggressive action is needed*." [emphasis added]

3) *How do we moo-ve forward?* Enteric methane emissions can be reduced through genetic selection, diet modification, and feed additives. Of these, feed additives offer the greatest potential for sector-wide methane emissions reductions because they potentially deliver considerable methane emissions reductions shortly after adoption. In comparison, strategies like diet modifications, feed efficiency improvements, and selective breeding require a relatively long time to achieve significant emissions reductions. Unlike manure management strategies, these strategies can be implemented at existing operations with minimal need to modify facility design and without significant upfront capital requirements or changes to land use. This makes these strategies potentially attractive for dairy and livestock operations, especially rented or leased operations.

   CARB calculates that methane emissions reductions from enteric fermentation

present an opportunity to achieve significant methane emissions reductions, potentially at a cost of approximately $50 per metric ton on a carbon dioxide equivalent basis. This is far lower than most technological carbon dioxide removal methods, which typically range between $200 and $2,000 per ton of carbon dioxide today (costs which are expected to fall as the technology matures and the market scales).

Comments

1) *Purpose of this resolution.* According to the author, "Enteric Methane produced by cattle is a significant contributor to our Climate challenge and it demands innovative solutions. This resolution strikes an important balance. Recognizing the reality of climate change and the need to reduce enteric methane emissions, while acknowledging that solutions must be economically viable for our agricultural producers. This resolution is California's commitment to innovative solutions that support sustainable agriculture practices while urging the United States Congress to explore reducing enteric methane emissions."

2) *Sacrifice zones and environmental justice.* Dairy farms make bad neighbors. According to an article published in April 2021 in Discover Magazine:

> On days when the air pollution is especially bad, a mother in Tulare County, California – where cows outnumber people two to one – forbids her children from going outside. The woman, who declined to be named for fear of reprisal from her neighbors in the dairy industry, said that nearly everyone in her family, including herself, suffers from a combination of severe allergies and asthma, overlapping illnesses that cause sleepless nights, sick days and weekly doctor's appointments.
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> She runs an air filtration system in their home to protect her children from the toxic fumes wafting off freeways, oil wells, and cow feedlots… Worried about water contamination as well, she also drives 20 miles to buy four gallons of clean water each week… she doesn't use it for cooking and would never allow anyone in her family to drink it. Dealing with pollution is a daily struggle.

Regardless of the anticipated methane reductions from innovative solutions or the validity of the GHG accounting surrounding dairy biogas, it should be remembered that methane and milk are not the only things leaving dairy farms,

and the admittedly abstract notion of "greater global atmospheric warming," is not the only victim.

3) *Using all the tools in the tool belt to reduce agricultural emissions*. Under SB 1383, CARB was expressly prohibited from imposing regulations (i.e. using "sticks") on methane emissions from sources included in the bill until January 1, 2024. Rather, they were only permitted to use incentive-based programs (i.e. "carrots") to reduce agricultural methane emissions—both enteric and from manure. Even after January 1, 2024, CARB is only authorized to implement regulations to meet the 2030 methane reduction target if CARB (in consultation with CDFA) determines the regulations are technologically and economically feasible, cost-effective, include provisions to minimize and mitigate potential leakage, and include an evaluation of the achievements made by incentive-based programs.

   Incentives are not the only option. The Danish government recently announced a plan to tax livestock emissions starting in 2030, with a proposed rate of $100 per cow per ton of carbon dioxide equivalent. Danish farmers will be able to avoid this taxation by using three main commercially available additive options.[1] Ultimately, this is a question of who should pay. When taxes are imposed (as proposed in Denmark), farmers will ultimately either pay the tax or pay for one of the other compliance options, and these costs will likely be passed through to the consumers of the products. When financial incentives alone are used to encourage the adoption of the same solutions, the farmers incur no additional costs and so no higher prices would be expected for consumers. Nevertheless, the money must come from somewhere, and if those incentives are paid for out of other pots of money (say a general fund or a climate-specific fund) then that necessarily means there is less money available for something else.

   This resolution states that voluntary incentives should be among the range of strategies considered to reduce the impact of any cost drivers to cattle industries. While it is entirely understandable that the agricultural industry would prefer to only be moved to action through carrots rather than sticks, and it is certainly possible that goals can be reached through voluntary action alone, the Legislature should not take tools off the table for achieving our ambitious methane emission reduction goals. This resolution reflects that all options should be weighed in reaching our methane emission reduction goals.

[1] UC Davis College of Agriculture and Environmental Sciences. State of the Science: Reduce Methane from Animal Agriculture. May 19-20, 2024

FISCAL EFFECT: Appropriation: No Fiscal Com.: No Local: No

SUPPORT: (Verified 8/18/25)

California Climate and Agriculture Network

OPPOSITION: (Verified 8/18/25)

None received

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8/20/25 23:44:12

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