LFC Requester:	

AGENCY BILL ANALYSIS
2025 REGULAR SESSION

SECTION I: GENERAL INFORMATION

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Check all that apply:

Original x **Amendment** ____

Correction ___ **Substitute** ____

Date 1/27/2025

Bill No: SB 99

Sponsor: Sen Antoinette Sedillo Lopez

Short Title: Clean Fuels Standard Carbon Intensity Restriction

Agency Name and Code Number: EMNRD - 521

Person Writing Samantha Kao

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SECTION II: FISCAL IMPACT

APPROPRIATION (dollars in thousands)

Appropriation		Recurring or Nonrecurring	Fund Affected
FY24	FY25		

(Parenthesis ( ) Indicate Expenditure Decreases)

REVENUE (dollars in thousands)

Estimated Revenue			Recurring or Nonrecurring	Fund Affected
FY24	FY25	FY26		

(Parenthesis ( ) Indicate Expenditure Decreases)

ESTIMATED ADDITIONAL OPERATING BUDGET IMPACT (dollars in thousands)

	FY24	FY25	FY26	3 Year Total Cost	Recurring or Nonrecurring	Fund Affected
Total						

(Parenthesis ( ) Indicate Expenditure Decreases)

SECTION III: NARRATIVE

BILL SUMMARY

Synopsis:

SB99 adds a clause in the creation of the Clean Transportation Fuels Standard (CTFS) guidelines that prohibits the Environmental Improvement Board (EIB), the entity charged with creating the program, from assigning a fuel with a carbon intensity less than zero.

FISCAL IMPLICATIONS

No fiscal implications for EMNRD.

SIGNIFICANT ISSUES

According to different clean fuel standards and carbon intensity calculations such as the U.S. Department of Energy (DOE) Argonne National Laboratory's "Greenhouse Gases, Regulated Emissions, and Energy use in Technologies" (GREET®)[1] model, fuel can achieve a negative carbon intensity score if its production process removes more potent greenhouse gas emissions from the atmosphere than it emits during combustion. One example of this occurs when methane emissions—typically from sources like landfills or manure—are captured, converted into renewable natural gas (RNG), and then used as fuel, preventing methane from being released into the atmosphere, albeit still releasing other greenhouse gases such as carbon dioxide.

Key terms in lifecycle analysis of fuels:

> Capturing emissions: The process captures methane before it's released into the atmosphere and uses it as fuel.
> Biogas from waste: RNG, like that produced from dairy manure, captures methane and converts it into usable fuel, leading to a negative carbon intensity score.
> Lifecycle analysis: A fuel's carbon intensity is calculated over its entire lifecycle, from production to combustion, and if it results in a net carbon removal, the score becomes negative.

RNG is chemically identical to fossil natural gas but is sourced from decaying organic materials like landfills, sewage treatment plants, or livestock manure. Methane is captured from these sources, cleaned, and pumped into pipelines for electricity, heating, or transportation fuel. A less common form of RNG is synthetically produced through chemical reactions or biomass gasification, though this technology is still emerging.

Environmental concerns

Environmental advocates who take issue with assigning negative carbon intensity to fuels say that it could encourage complacency in emissions reduction, giving the false impression that using such fuels allows for continued high emissions elsewhere. This could delay the transition to truly clean energy sources and undermine the urgency to reduce the overall carbon footprint. Key issues include:

- a potential distraction from reducing emissions from existing fossil fuel sources,
- the uncertainty, and uncertain scalability, of carbon-capture technologies,

[1] https://www.energy.gov/eere/greet

- the risk of unintended environmental consequences from biofuel production,
- and market distortions that could undermine investment in clean energy alternatives.

For example, because of negative carbon intensity valuation, RNG credits accounted for 17% of market-wide credit issuance in California's Low Carbon Fuel Standard market during 2023, despite RNG accounting for only 1% of California's transportation fuel supply[2]. These advocates suggest focusing on deep decarbonization through renewable energy and electrification, employing strict carbon accounting, and developing targeted carbon removal strategies where most needed would better support meaningful emissions reductions.

Implications of negative carbon intensity valuation for RNG in CTFS for New Mexico

However, negative valuation of RNG can also be considered an effective way to fight the atmospheric warming effect of methane -- by establishing a market incentive for abatement. On a 100-year time scale, methane's warming potential is 28 times that of carbon dioxide[3]. The production of RNG essentially trades highly potent methane emissions from agricultural waste for carbon emissions when the gas is combusted for productive purposes, establishing a net reduction in atmospheric warming potential. Notably, the effectiveness of this conversion can be influenced by external factors (such as the source of the feedstock for cattle and the overall scale of RNG implementation). The heightened incentive to capture methane provided by negative carbon intensity valuation could facilitate greater emissions abatement among the state's methane-intensive industries.

New Mexico is the 9th largest dairy producing state in the U.S., and its total livestock herd totals over 1.2 million head[4]. Agriculture accounts for approximately 15% of the state's total greenhouse gas emissions, with about half of that originating from methane produced by enteric fermentation and manure management[5]. Farmers and food processors in New Mexico could possibly benefit from added incentives to capture agricultural methane emissions offered by the CTFS via negative carbon intensity valuation for RNG production. This would entail selling high-value certificates from RNG-fueled electricity generation or RNG-based transportation fuel to the fossil gasoline industry that can be retired in the CTFS marketplace for compliance. With a negative carbon intensity valuation, credits from transportation fuels produced from RNG (such as compressed natural gas or liquefied natural gas) are more valuable per-unit of fuel replaced than zero-carbon resources in the CTFS market.

New Mexico currently offers a $5 tax credit per wet ton of agricultural biomass transported to a biodigester facility to produce RNG. However, because of high industrial biodigester start-up costs and the diminishing value of the current transport tax credit over increasing transport distance, investment tax credits or grants are needed to spur the development of more biodigester facilities statewide in the absence of additional revenue streams. Negative valuation of RNG in New Mexico's CTFS could provide one such revenue stream, sending a market signal for RNG producing biodigesters to construct more facilities in New Mexico and capture more of the agricultural industry's methane.

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[2] Cullenward (2024). California's Low Carbon Fuel Standard. University of Pennsylvania. Kleinman Center for Energy Policy.
[3] United States Environmental Protection Agency. Understanding Global Warming Potentials.
[4] United States Department of Agriculture. (2023). New Mexico State Agriculture Overview.
[5] New Mexico Environment Department. (2024). New Mexico Greenhouse Gas Emissions Inventories and Forecasts.

PERFORMANCE IMPLICATIONS

ADMINISTRATIVE IMPLICATIONS

CONFLICT, DUPLICATION, COMPANIONSHIP, RELATIONSHIP

TECHNICAL ISSUES

OTHER SUBSTANTIVE ISSUES

ALTERNATIVES

WHAT WILL BE THE CONSEQUENCES OF NOT ENACTING THIS BILL

Without enacting this bill, the EIB could potentially assign a negative carbon intensity valuation to RNG-based fuels in the CTFS compliance market.

AMENDMENTS