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FISCAL IMPACT REPORT

ORIGINAL DATE 2/25/19

SPONSOR Ezzell LAST UPDATED _____ HB 613

SHORT TITLE Agricultural Carbon Credit Act SB _____

ANALYST Gaussoin

ESTIMATED ADDITIONAL OPERATING BUDGET IMPACT (dollars in thousands)

	FY19	FY20	FY21	3 Year Total Cost	Recurring or Nonrecurring	Fund Affected
Total		Indeterminate but Substantial	Indeterminate but Substantial		Recurring	General Fund

(Parenthesis () Indicate Expenditure Decreases)

SOURCES OF INFORMATION

LFC Files

Responses Received From

Department of Agriculture (NMDA)

Energy, Minerals and Natural Resources Department (EMNRD)

New Mexico Attorney General (NMAG)

SUMMARY

Synopsis of Bill

House Bill 613 creates an Agricultural Carbon Credit Act that includes a process for certifying carbon credits for certain agricultural practices. Carbon credits are evidence of a reduction in greenhouse gas emissions that can be sold to factories and other entities sometimes required by law to reduce emissions. The Department of Agriculture would issue the carbon credits and would be responsible for certification, including through soil testing, and ownership tracking. The bill would authorize the department to conduct audits and invalidate carbon credits for noncompliance or fraud, establish a fee schedule and collect fees for certification of carbon credits, and set penalties up to five times the value of the credit for causing invalidation of a carbon credit due to fraud or other criminal intent.

Under the bill, farmers could earn carbon credits by employing best practices and measurably reducing nitrogen fertilizer use or the emission of nitrous oxide or increasing soil organic matter, called humus.

The bill contains a severability clause. The effective date is July 1, 2019.

FISCAL IMPLICATIONS

The burden for implementation and enforcement of the Agricultural Carbon Credit Act falls heavily on the Department of Agriculture, which would be required to promulgate the regulations, verify the use of best practices and scientifically measure any resulting drop in greenhouse gas emissions or increased soil humus, track the chain of ownership of the credit, and enforce any penalties from fraudulently claiming credits.

NMDA did not estimate its potential costs but the NMDA Standards and Consumer Services Division responsible for ensuring fuel quality and regulating fuel pumps and other devices that weigh and measure products for consumers has 30 employees, including numerous field agents.

The bill provides for the department to collect carbon credit certification fees up to 105 percent of the actual cost of documentation, but as the department notes, “Revenue projections depend upon the volume of credits traded and no established data exists in the state to base estimates upon.”

SIGNIFICANT ISSUES

It is unclear whether the state needs a law regulating carbon credits for farmers to participate in carbon credit markets. While there seems to be a growing movement among states to enact laws providing for agricultural carbon credits, many of those laws are focused on incentives to encourage farmers to participate. However, some agricultural industry and environmental groups see carbon credits as a means for farmers to earn money on their land through best practices. They say many of the practices improve soil quality, allowing farmers to both improve agricultural output and sell the credits.

The Natural Resources Conservation Service of the U.S. Department of Agriculture provides tools to farmers to calculate greenhouse gas emissions and private investors are working with forest owners and others to pull them into the carbon credit marketplace. (See Other Substantive Issues.)

NMDA reports, absent a state requirement for “cap and trade” (a policy that places a cap on emissions but allows emitters to buy allowances, or carbon credits), national or international “credit accumulators” will set the requirements for eligible practices and the method for determining reductions. But the agency adds, “New Mexico currently does not participate in any regional, national, or international program to trade carbon credits. A market must exist to provide these offsets to in order to have economic value.”

NMAG indicates the absence of a cap on agricultural emissions might mean New Mexico farmers have little incentive to possess and retire credits to offset emissions. The agency says, “If the intent is that credits could be used in other carbon credit programs, applicable to other sectors of the economy, it might be helpful to clarify this.”

ADMINISTRATIVE IMPLICATIONS

From NMDA: “Additional staff and resources would be necessary and would be dependent upon the volume of participation and trade in the program which is undetermined.”

OTHER SUBSTANTIVE ISSUES

EMNRD notes the bill does not address carbon credits for forestry best management practices that sequester carbon, the long-term storage of carbon dioxide through trees, in the case of forests, but also achieved through increasing the organic material in soil.

NewForests, which manages capital for investment in sustainable timberland and environmental markets, including over 1.5 million acres of timberland and rural land, expects to help the Mescalero Apache earn 3 million carbon credits through 2020. The company says its purpose is to deliver “a reliable, high-volume supply of offsets to businesses regulated under the California cap and trade system.”

The Climate Trust, the winner of a \$900 thousand USDA Natural Resources Conservation Services (NCRS) innovation grant, says, while carbon dioxide is abundant, nitrous oxide is over 300 times more potent of a greenhouse gas. It says offsets may be developed under voluntary market standards or compliance market standards, each with different accounting and eligibility rules.

Agriculture is a relatively young sector in the carbon markets and new methodologies are being approved. ... Because buyers want to ensure that offsets produce genuine climate benefit and are of high quality, most offset projects are developed and certified using a recognized voluntary or compliance carbon standard.

The types of agricultural management activities that may produce carbon offsets include:

- *Changes in Fertilizer Management:* practice changes in the rate, timing, placement, and type of fertilizer may qualify for carbon offsets if GHG emissions are reduced
- *Rice Management Systems:* limiting the amount of time a field is flood-irrigated and ensuring the appropriate level of crop residue is left on the field, both affect GHG emissions
- *Soil Carbon Building:* practices such as composting, biochar, and grazing land/livestock management build more biomass in soils, not only improving soil qualities such as fertility and water holding capacity, but also sequestering carbon.

... Carbon offset prices are dynamic and can vary from compliance market to voluntary market, from project-to-project, and over time.

In announcing its NCRS grant in 2017, the Climate Trust wrote it would launch an Environmental Price Assurance Facility to “overcome [price] uncertainty and make environmental markets financeable.”

The EPAF brings the World Bank’s successful Pilot Auction Facility model for international offsets to benefit conservation in the U.S. The EPAF will auction put option contracts to U.S. projects that generate environmental credits. These contracts guarantee a minimum value for future credits—assuring projects, investors, and lenders that environmental markets have real value. By providing a credit enhancement that guarantees a minimum value for future environmental

credits, the EPAF will lower the risk and therefore the cost of capital to build conservation projects.

(For more information from the Climate Trust, including descriptions of agricultural carbon credit projects, advice and resources for those considering implementing one, and links to carbon standards and markets, visit climatetrust.org.)

Also of note:

- Farmers Edge, a Canadian company that helps farmers increase production, reports Canada’s rules requiring industrial facilities to lower greenhouse gas emissions has resulted “in a thriving carbon market” with ample opportunities for farmers. “By following agricultural protocols designed to reduce greenhouse gas emissions, farmers can earn carbon offset credits, which can then be sold back to industrial facilities in the carbon market. The protocols support land stewardship practices that improve efficiency, productivity and sustainability.” Canadian farmers currently earn offset credits by following a conservation protocol.
- NCRS, in collaboration with Colorado State University, has developed a free, publicly accessible online tool for quantifying greenhouse gas emissions from agricultural operations called COMET-Farm, which the agency says reflects “more than a decade of model development experience.” The tool estimates the “carbon footprint” for all or part of a farm or ranch operation and allows the operator to evaluate different options for reducing greenhouse gas emissions and sequestering more carbon. The tool uses detailed spatially-explicit data on climate and soil conditions for the location and allows the operator to enter detailed information on field and livestock operations.
- The magazine Fast Company, in “The ‘carbon removal marketplace’ will make buying offsets easier,” published in June 2018, reports, “A new ‘carbon removal marketplace’ hopes to make it easier for consumers and businesses to directly support farmers who ... want to shift to climate-friendly practices.” It says Nori, already online at Nori.com, will streamline the process of buying and selling offsets. “The funding that the platform enables could help encourage farmers to transform their operations.”
- From the National Agricultural Law Center: “Agriculture and forestry are somewhat unique in their ability to both produce and reduce greenhouse gasses. According to the [Environmental Protection Agency], agriculture in the United States accounts for 7-8 percent of the nation’s total greenhouse gas emissions. The biological processes inherent in agriculture production, however, have the potential to allow agriculture to offset vastly more emissions than it produces.
- The Environmental Defense Fund reports California has 350 buyers for carbon credits but “that number will increase substantially as two additional Canadian provinces join California’s market in the next two years.” The organization says growers don’t have to live in California or Canada to participate in these markets. “They can be anywhere in the U.S. where the crop is grown and there is a protocol which has been adopted.”

POSSIBLE QUESTIONS

Does the state need this law for farmers to sell carbon credits?

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