F I S C A L   I M P A C T   R E P O R T

ORIGINAL DATE 2/10/2020
SPONSOR SIAC **LAST UPDATED** **HB**

SHORT TITLE Oil & Gas Tax Changes **SB** 294/SIAC

ANALYST Graeser

REVENUE (dollars in thousands)

Estimated Revenue					Recurring or Nonrecurring	Fund Affected
FY20	**FY21**	**FY22**	**FY23**	**FY24**		
			Indeterminate but positive (see Fiscal Impact)	Indeterminate but positive (see Fiscal Impact)	Recurring	General Fund (Gross Receipts Tax
			Indeterminate but positive (see Fiscal Impact))	Indeterminate but positive (see Fiscal Impact)	Recurring	Local Government (Gross Receipts Tax)
			Possible negative (see Fiscal Impact)	Possible negative (see Fiscal Impact)	Recurring	General Fund (School and Conservation)
			Possible negative (see Fiscal Impact)	Possible negative (see Fiscal Impact)	Recurring	Local Gov'ts (Ad Valorem)
			Indeterminate, but negative (as much as $5 million/$20 million)	Indeterminate, but negative (as much as $5 million/$20 million)	Recurring	Severance Tax Bond Fund and STB Capacity
			Indeterminate, but negative (less than $1 million)	Indeterminate, but negative (less than $1 million)	Recurring	Severance Tax Permanent Fund

Parenthesis ( ) indicate revenue decreases

Duplicate of HB318

SOURCES OF INFORMATION
LFC Files

Responses Received From
Energy, Minerals & Natural Resources (EMNRD) on HB-318

No Response Received
Taxation and Revenue Department (TRD)

SUMMARY

Synopsis of Bill

Senate Indian and Cultural Affairs Committee Substitute for Senate Bill 294 proposes to define "Anthropogenic Carbon Dioxide" as CO_2 produced from an industrial process such as scrubbing/extraction from a coal-fired electric generation plant and creates a tax incentive for the use of this form of CO_2 by decreasing the severance taxes imposed on natural gas produced from an enhanced oil recovery project using the anthropogenic CO_2. This lower enhanced oil recovery rate is restricted to the use of anthropogenic CO_2.to "displace oil and other liquid hydrocarbons removed from natural gas at or near the wellhead."

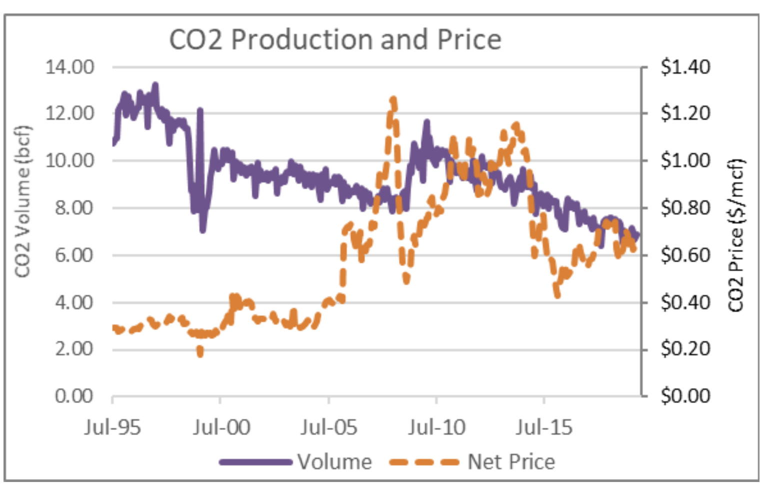
There is no effective date of this bill. It is assumed that the effective date is 90 days after this session ends (May 20, 2020). However, the text of Section 2 creates limits on the proposal: "(4) beginning on July 1, 2020 and before July 1, 2026 …"

FISCAL IMPLICATIONS

The fiscal impact of this proposal is indeterminate, but negative to the severance tax bonding fund and the severance tax permanent fund. There could be a displacement effect creating a loss to the general fund (school tax) if anthropogenic CO_2 becomes cheaper to use than CO_2 produced from the Bravo Dome subterranean field. This would also create a loss in Quay, Harding and Union Counties of the Ad Valorem Production and Ad Valorem Production Equipment Taxes and would add to the severance tax bond fund (STBF) and severance tax permanent fund (STPF) losses.

Note that anthropogenic CO_2 produced in an industrial process would not be "severed and saved" from the earth, and would not be subject to the school tax, the severance tax, the conservation tax or the two ad valorem taxes. The produced anthropogenic CO_2 would then be subject to the gross receipts tax, since the product is not subject to the school tax and 7-9-33 NMSA 1978 would not apply. This would create a positive fiscal impact for the general fund and for local governments. It may be difficult, however, to physically distinguish Bravo Dome CO_2 from anthropogenic CO_2.

The magnitude of the changes, however, is critically dependent on the extent to which the proposed carbon scrubbing and sequestration technology at the soon-to be closed San Juan Generating Plant is technically feasible and financially viable. The owner of the coal-fired Escalante plant has also announced closure of that plant, but not announced plans to explore carbon sequestration. The Four-Corners coal fired power plant is scheduled for closure in 2030, but that would be outside the time window for this enhanced oil recovery severance tax rate.



Tertiary enhanced oil recovery using highly compressed CO_2 has become increasingly uneconomic and unpopular – particularly since the advent of horizontal drilling and fracking. The chart to the right shows the long-term changes in CO_2 volume and price.

While the direct impacts on the STBF and STPF are largely indeterminate, the impact can be illustrated if half of the Bravo dome production were displaced. This illustration assumes prices would remain constant.

			Assume 50% of Bravo Dome Displaced				
			3%	3.75%	0.19%	1%	0.28%
	CO2 Volume	CO2 Net Value	School	Severance	Conservation	Ad Val Prod	Ad Val Equip
CY2019	83,539,765	$53,130,459	($836,800)	($996,200)	($50,500)	($265,700)	($74,400)

The proposed plan will largely involve anthropogenic CO_2 produced in the San Juan area and used for tertiary enhanced oil recovery activities in both the San Juan and the Permian, if the pipeline capacity to transport the highly compressed anthropogenic CO_2 can be found or built.

SIGNIFICANT ISSUES

This bill creates or expands a tax expenditure with a cost that is difficult to determine but likely significant. LFC has serious concerns about the significant risk to state revenues from tax expenditures and the increase in revenue volatility from erosion of the revenue base. The committee recommends the bill adhere to the LFC tax expenditure policy principles for vetting, targeting, and reporting or be held for future consideration. This bill as drafted will minimize any near-term negative impact on the general fund, since the severance tax rate reduction would affect the severance tax bond fund (STBF) and the severance tax permanent fund (STPF). The Fiscal Impact section above explores the mechanism (displacement) for a school tax, conservation tax, severance tax, ad valorem production and ad valorem production equipment tax impact. In addition, the anthropogenic CO_2 would not qualify for the gross receipts and compensating tax exemption of 7-9-33 NMSA 1978 and the receipts from the sale of the anthropogenic CO_2 would be taxable. Unraveling these multitude of effects will be difficult.

House Bill 318 proposes to amend four sections of the Oil and Gas Severance Tax Act and the Enhanced Oil Recovery Act:

HB318 amends Section 7-29-2 NMSA 1978, which is the definitions section of the Oil and Gas Severance Tax Act by:

1) Creating a definition for “anthropogenic carbon dioxide” which is proposed to mean carbon dioxide captured from an industrial source; and
2) Creating a definition for “posted price”.

Modifies the oil and gas severance taxes imposed by the Oil and Gas Severance Tax Act by:

1) Proposing amendments to create new categories of severance tax imposed on “oil and other liquid hydrocarbons removed from natural gas” produced from a “qualified enhanced recovery project” depending on the price of West Texas intermediate crude being less than $80 a barrel; and
2) The new categories of severance tax would be: two and three-fourth percent if twenty-five to fifty percent of total carbon dioxide injected was anthropogenic, one and three-fourths percent if fifty to ninety percent of total carbon dioxide injected was

anthropogenic, and zero percent if more than ninety percent of total carbon dioxide injected was anthropogenic.

HB318 amends Section 7-29-7 NMSA 1978, which requires operators to report value and volume of product under the Oil and Gas Severance Tax Act by requiring operators to report the percentage of anthropogenic carbon dioxide used in the process of displacing oil and other liquid hydrocarbons per month.

HB318 amends Section 7-29A-2 NMSA 1978, which is the definitions section of the Enhanced Oil Recovery Act by amending the definition of "recovered oil tax rate" to create a cross reference to the proposed amendments in Section 7-29-4.

EMNRD notes that, "…HB318 defines "anthropogenic carbon dioxide" very broadly and does not provide for a mechanism for any regulatory body to ensure "anthropogenic carbon dioxide" is being defined by operators correctly and reported by operators correctly.

One element contributing to the fiscal indeterminacy is that the quantity of CO_2 used in a particular tertiary enhanced recovery project can vary greatly. The enhanced oil recovery rate depends not on the productivity of the recovered well, but on the percentage of anthropogenic CO_2 used. Potentially, 100 percent of a small amount of CO_2 injected would trigger the reduction in severance tax potentially to zero percent, if 90 percent or more of the injected CO_2 would qualify as "anthropogenic." The bill provides for some oversight by the oil conservation division, but OCD's expertise is in petroleum geology and not tax administration. The relevant section allowing oversight follows:

> **70-2-12. Enumeration of powers.**
> … B. The oil conservation division may make rules and orders for the purposes and with respect to the subject matter stated in this subsection: …
> (14) to permit the injection of natural gas or of any other substance into any pool in this state for the purpose of repressuring, cycling, pressure maintenance, secondary or any other enhanced recovery operations;

One possible explanation for the provisions of this bill is to provide incentives to actually develop the technology of carbon sequestration and utilization in tertiary recovery projects, thus assisting Farmington and San Juan County to adapt to the ultimate transition away from coal-fired electric power generation.

PERFORMANCE IMPLICATIONS

The LFC tax policy of accountability is <u>not</u> met since TRD is <u>not</u> required in the bill to report annually to an interim legislative committee regarding the data compiled from the reports from taxpayers taking the deduction and other information to determine whether the deduction is meeting its purpose.

ADMINISTRATIVE IMPLICATIONS

The bill requires producers and users of anthropogenic CO_2 to file reports on the amount of CO_2 used. This is a new report and require TRD staff and IT resources to develop the processing and verification procedures.

DUPLICATION

Duplicate of HB318

TECHNICAL ISSUES

This bill does not contain a delayed repeal date. LFC recommends adding a delayed repeal date approximately one-year after the July 1, 2026 sunset of the tax incentive tax rate.

An amendment should be considered adding an exemption from the Gross Receipts Tax, similar to 7-9-33 NMSA 1978 in order to provide the most financial incentive possible to assist in the developing of the technology.

As mentioned above, phasing the levels of severance tax reduction based on the percentage of injected CO_2 rather than a more conventional measure of value may cause administrative problems and potential abuse.

> 7-29-4. Oil and gas severance tax imposed
> …
> (5) on the oil and on other liquid hydrocarbons removed from natural gas at or near the wellhead from a well workover project that is certified by the oil conservation division of the energy, minerals and natural resources department in its approval of the well workover project, two and forty-five hundredths percent of the taxable value determined pursuant to Section 7-29-4.1 NMSA 1978, provided that the annual average price of west Texas intermediate crude oil, determined by the department by averaging the posted prices in effect on the last day of each month of the twelve-month period ending on May 31 prior to the fiscal year in which the tax rate is to be imposed, was less than twenty-four dollars ($24.00) per barrel;

One simple means of achieving the unstated goal of this bill would be to amend the "twenty-four dollars ($24.00) per barrel" ceiling to be "eighty dollars ($80.00) per barrel in section 7-29-4 (5) NMSA 1978." With this amendment, the potentially less expensive anthropogenic CO_2 would be price competitive with Bravo Dome CO_2 although both processes would benefit from the higher ceiling price.

OTHER SUBSTANTIVE ISSUES

A document produced by DOE, entitled "CO2_EOR Primer" explains some of the background of the provisions of this bill.[1] as follows:

> Cumulative injected CO2 volumes vary, but typically range between 15 and 30 percent of the hydrocarbon pore volume of the reservoir. Historically, the focus in CO2 enhanced oil recovery is to minimize the amount of CO2 that must be injected per incremental barrel of oil recovered, especially since CO2 injection is expensive. However, if carbon sequestration becomes a driver for CO2 EOR projects, the economics may begin to favor injecting larger volumes of CO2 per barrel of oil recovered, i.e., if the cost of the CO2 is low enough.

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[1] https://www.netl.doe.gov/sites/default/files/netl-file/CO2_EOR_Primer.pdf

This might indicate that the availability of untaxed anthropogenic CO_2 might depress the price of all forms of CO_2, including Bravo Dome and San Juan anthropogenic CO_2.

The state passed the Transition Act last year that will assist Farmington and San Juan County to adapt to massive changes from the near-term shutdown of the San Juan Generating Station and the ultimate shutdown of the Four Corners Power Plant. The announced efforts by the City of Farmington to keep the jobs and activity at the San Juan plant by developing large-scale CO_2 sequestration technology with the effluent compressed and injected into oil (and, perhaps, natural gas) wells has been praised as innovative and has also received criticism.

Does the bill meet the Legislative Finance Committee tax policy principles?

1. **Adequacy**: Revenue should be adequate to fund needed government services.
2. **Efficiency**: Tax base should be as broad as possible and avoid excess reliance on one tax.
3. **Equity**: Different taxpayers should be treated fairly.
4. **Simplicity**: Collection should be simple and easily understood.
5. **Accountability**: Preferences should be easy to monitor and evaluate

Does the bill meet the Legislative Finance Committee tax expenditure policy principles?

1. **Vetted**: The proposed new or expanded tax expenditure was vetted through interim legislative committees, such as LFC and the Revenue Stabilization and Tax Policy Committee, to review fiscal, legal, and general policy parameters.
2. **Targeted**: The tax expenditure has a clearly stated purpose, long-term goals, and measurable annual targets designed to mark progress toward the goals.
3. **Transparent**: The tax expenditure requires at least annual reporting by the recipients, the Taxation and Revenue Department, and other relevant agencies.
4. **Accountable**: The required reporting allows for analysis by members of the public to determine progress toward annual targets and determination of effectiveness and efficiency. The tax expenditure is set to expire unless legislative action is taken to review the tax expenditure and extend the expiration date.
5. **Effective**: The tax expenditure fulfills the stated purpose. If the tax expenditure is designed to alter behavior – for example, economic development incentives intended to increase economic growth – there are indicators the recipients would not have performed the desired actions "but for" the existence of the tax expenditure.
6. **Efficient:** The tax expenditure is the most cost-effective way to achieve the desired results.

LFC Tax Expenditure Policy Principle	Met?	Comments
Vetted	✘	
Targeted		
Clearly stated purpose	✘	The implicit purpose is to provide additional financial assistance to a somewhat risky attempt to reverse the announced shutdown of the San Juan Generating plant and keep jobs and tax revenue from leaving the area.
Long-term goals	✘	Not stated because the technology is experimental. If proved and efficient, the strategy will accomplish the long-term goal of keeping jobs and tax revenue in the area.
Measurable targets	✘	Not stated
Transparent	✘	The contingency here is whether the technology works and if the CO_2 can be processed, compressed and transported to a place of use. There is no provision for interim reporting to the legislature or to the residents of San Juan County, Quay, Harding or Union Counties affected by possible displacement or to OGAS producers in the Permian basin.
Accountable		
Public analysis	✘	See comments above.
Expiration date	✓	
Effective		
Fulfills stated purpose	✘	
Passes "but for" test	?	
Efficient	?	Unknown if the technology can be developed, so unknown whether the process is financially viable.
Key: ✓ Met ✘ Not Met ? Unclear		

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