

## Potential State and Local Revenue Impacts of Proposed Ozone Precursor Rule on the Oil and Gas Industry

August 2021

### Summary:

Table 1 summarizes estimates of the potential State and Local revenue impacts of the proposed Ozone precursor rule (Rule) that has been submitted to the N.M. Environmental Improvement Board for approval.<sup>1</sup> Total annual impacts are estimated at \$730 million, \$569 million in State revenue and \$160 million in Local revenue. These estimates are based on the decrease in oil and gas production estimated by John Dunham & Associates (JDA).<sup>2</sup> The annual impact on the State General Fund would be \$327 million, on the State Bonding Funds \$108 million and on the Land Grant Permanent Fund \$133 million. Table 1 presents all of the Local revenue impacts in the General Fund, although some of the impacts would affect bonding programs at the Local level. Information is not currently published to enable separating these effects. The rest of this report provides detailed information on how estimates were derived.

**Table 1**

### Potential Annual State & Local Revenue Impacts of Proposed Ozone Precursor Rule

Million Dollars

	State	Local	Total
Taxes	-\$324.0	-\$160.5	-\$484.6
Royalties	-\$245.0	\$0.0	-\$245.0
<b>Total</b>	<b>-\$569.1</b>	<b>-\$160.5</b>	<b>-\$729.6</b>
General Fund	-\$327.1	-\$160.5	-\$487.7
Bonding Funds	-\$108.4		-\$108.4
Land Grant Permanent Fund	-\$133.0		-\$133.0
Other funds	-\$0.6		-\$0.6
<b>Total</b>	<b>-\$569.1</b>	<b>-\$160.5</b>	<b>-\$729.6</b>

### Production Impacts:

Table 2 presents the estimated impacts on oil and gas production in the State due to the Rule. The estimates were derived by applying the estimated percentage reduction as estimated by JDA to the baseline forecast of total production in the State prepared by the Consensus Revenue Estimating Group (CREG) in February 2021.<sup>3</sup> Estimates are presented as full-year effects in FY23 under the simplifying assumption that the rule will take effect by the beginning of FY23. The timeline for implementation of

<sup>1</sup> Environmental Protection, Air Quality (Statewide), Oil and Gas Sector – Ozone Precursor Pollutants, Proposed Rule, N.M. Environmental Improvement Board, May 6, 2021.

<sup>2</sup> John Dunham & Associates, Memorandum on Estimated Costs of Proposed Ozone Precursor Rule on Oil and Natural Gas Development in New Mexico, June 13, 2021.

<sup>3</sup> Available at the website of the Legislative Finance Committee.

the rule is uncertain at this time, and it may take effect before or after the beginning of FY23. Thus, these may be thought of as the annualized impacts of the rule in the early years of its implementation.

Table 2

Production and Industry Revenue Impacts of Proposed Rule: FY23			
	Oil	Gas	Total
Baseline production volume<1>	370	1,830	NA
Percentage volume impact <2>	-12.9%	-22.8%	NA
Amount of volume impact	(47.73)	(417.24)	NA
Annual price average <1>	\$48.50	\$2.65	NA
<b>Industry revenue impact (Million \$)</b>	<b>-\$2,314.9</b>	<b>-\$1,105.7</b>	<b>-\$3,420.6</b>

<1> Consensus Group revenue forecast, February 2021.

<2> John Dunham Associates, Memorandum on Estimated Costs of Proposed Ozone Precursor Rule, June 13, 2021.

### Production-Related Revenues:

Table 3 presents the potential impacts of the Rule on production-related taxes and royalties as well as the specific funds affected by each revenue. For each tax or royalty payment, an effective payment rate has been estimated. Specific assumptions for these rates are:

- O&G Production Taxes: Statutory rate is applied to estimated Taxable Revenue for each product. Taxable Revenue is calculated by applying the Net product price as estimated by the CREG after statutory deductions applying to each product.<sup>4</sup> This method applies to all but one of the taxes shown in Table 3. For the Ad Valorem taxes, Taxable Value is multiplied by the uniform assessment ratio and an average statewide property tax rate of 20 mills is assumed.
- The Natural Gas Processors Tax impacts were estimated by applying the percentage reduction in Natural gas production to the baseline revenue forecast.
- State Land Office royalties: The royalty rate assessed by the State Land Office (SLO) is multiplied by the share of total production of each product occurring on State Lands. In FY20, these percentages were 33 percent for oil and 22% for natural gas.
- Federal Mineral Lease royalties: The average royalty rate of 12.5 percent is multiplied by the share of production of each product on Federal Lands. In FY20 this percentage was 52 percent of oil and 60 percent of gas. The State's share of total Federal royalties is 48 percent under Federal policy.

<sup>4</sup> For an example, see Section 7-31-5 NMSA 1978.

**EXHIBIT C**

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**Table 3**  
**Change in Production-related revenues: FY23**

			<b>Oil:</b>		<b>Gas:</b>	<b>Combined:</b>
Percentage Volume Change			-12.9%		-22.8%	
Volume <1>			(48)		(417)	
Price <2>			\$48.50		\$2.65	
Gross revenue (\$MM)			-\$2,315		-\$1,106	-\$3,420.6
Net price			\$42.58		\$1.75	
Taxable revenue (\$MM)			-\$2,032		-\$730	-\$2,762.5
<b>Revenue by source: (\$MM)</b>	<b>Fund:</b>	<b>EPR &lt;3&gt;</b>		<b>EPR &lt;3&gt;</b>		
OG School Tax	GF	3.15%	-\$64.0	4.00%	-\$29.2	-\$93.2
OG Severance Tax	STBF	3.75%	-\$76.2	3.75%	-\$27.4	-\$103.6
OG Conservation Tax	GF	0.17%	-\$3.5	0.17%	-\$1.2	-\$4.7
OG Conservation Tax	Recl. Fd.	0.02%	-\$0.4	0.02%	-\$0.1	-\$0.6
N. Gas Processors Tax	GF				-\$2.6	-\$2.6
OG Ad Valorem Tax	LG	1.00%	-\$20.3	1.00%	-\$7.3	-\$27.6
Ad Val. Prod. Eqpt Tx	LG	0.18%	-\$3.7	0.18%	-\$1.3	-\$5.0
SLO Royalties	LGPF	5.28%	-\$107.3	3.52%	-\$25.7	-\$133.0
FML royalties	GF	3.12%	-\$72.2	3.60%	-\$39.8	-\$112.0
<b>Total</b>			<b>-\$347.6</b>		<b>-\$134.7</b>	<b>-\$482.4</b>
<b>Revenue by fund:</b>						
General Fund			-\$139.7		-\$72.9	-\$212.6
Sev. Tax Bonding Fund			-\$76.2		-\$27.4	-\$103.6
Land Grant Perm. Fund			-\$107.3		-\$25.7	-\$133.0
OG Reclamation Fd.			-\$0.4		-\$0.1	-\$0.6
Local Governments			-\$24.0		-\$8.6	-\$32.6
<b>Total</b>			<b>-\$347.6</b>		<b>-\$134.7</b>	<b>-\$482.4</b>

<1> Consensus group forecast February 2021. Oil in million barrels, Gas in Billion cubic feet.

<2> Consensus Group, Oil in dollars per barrel, Gas in dollars per thousand cubic feet.

<3> Effective tax or royalty rate. Calculated as described in the text.

### Additional Economic Impacts:

Table 4 presents estimates of the Direct, Indirect and Induced impacts on State and Local revenues of the proposed Rule.<sup>5</sup> These estimates were prepared using the IMPLAN modelling system. The starting point for the impacts was the estimated decline of \$3.4 billion in output of the Oil and Gas Extraction

<sup>5</sup> Per Wikipedia:

*Direct effects* are the results of the money initially spent in the study region by the business or organization being studied. This includes money spent to pay for salaries, supplies, raw materials, and operating expenses. *Indirect effects* are the results of business-to-business transactions indirectly caused by the direct effects. *Induced effects* are the results of increased personal income caused by the direct and indirect effects.

industry described in Table 2. The estimates of production-related revenue impacts described in Table 3 were subtracted from the IMPLAN estimates of Direct revenue impacts to avoid double counting.

**Table 4**

<b>Direct, Indirect &amp; Induced State &amp; Local Tax Impacts Excluding Production Taxes</b>				
<b>Million Dollars</b>				
	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<b>State:</b>				
Sales Taxes	-\$52.2	-\$21.3	-\$11.6	-\$85.2
Income Taxes	-\$11.5	-\$2.9	-\$2.2	-\$16.6
Property Taxes	-\$4.2	-\$0.4	-\$0.2	-\$4.8
Other	-\$10.6	-\$1.7	-\$0.5	-\$12.8
<b>Total</b>	<b>-\$78.5</b>	<b>-\$26.2</b>	<b>-\$14.6</b>	<b>-\$119.3</b>
<b>Local:</b>				
Sales Taxes	-\$59.2	-\$5.0	-\$2.7	-\$66.9
Income Taxes	\$0.0	\$0.0	\$0.0	\$0.0
Property Taxes	-\$47.0	-\$6.7	-\$3.6	-\$57.3
Other	-\$3.3	-\$0.3	-\$0.2	-\$3.7
<b>Total</b>	<b>-\$109.5</b>	<b>-\$11.9</b>	<b>-\$6.5</b>	<b>-\$127.9</b>
<b>Total:</b>				
Sales Taxes	-\$111.5	-\$26.3	-\$14.3	-\$152.1
Income Taxes	-\$11.5	-\$2.9	-\$2.2	-\$16.6
Property Taxes	-\$51.2	-\$7.0	-\$3.8	-\$62.1
Other	-\$13.8	-\$2.0	-\$0.7	-\$16.5
<b>Total</b>	<b>-\$188.0</b>	<b>-\$38.2</b>	<b>-\$21.1</b>	<b>-\$247.3</b>

Source: IMPLAN modelling system analysis conducted by the authors.

#### **Potential sources of conservatism in the estimates:**

- Economic impacts of the decreased government spending due to decreased revenue are not included in these estimates.
- The Rule is likely to negatively impact the incentive to drill new wells in the state, increasing the impact on future production and revenues.
- Some revenues were not included, such as bonus payments on State and Federal lands due to lack of specific information.
- Over time the reduced royalty income on State lands will reduce the balance in the Land Grant Permanent Fund, which will result in lower distributions to all of the beneficiaries of that Fund.