



July 29, 2022

Louisiana Tax Commission
1051 N 3rd St #2
Baton Rouge, LA 70882

Re: LAA Proposed Recommendations to Real / Personal Property Rules & Regulations Tax Year 2023

To the Louisiana Tax Commission:

Overview

We submit these comments on behalf of Environmental Defense Fund (EDF). Our comments are informed by the urgent need to reduce the number of orphan wells in Louisiana tied to the oil and natural gas sector. The proposed rules in question are pursuant to Chapter 9 of Louisiana Tax Commission's ("the Commission") rules and regulations for assessing real and personal property. We acknowledge the proposed rule's economic rationale for switching to an income-based approach for the valuation of oil and gas wells. However, the proposal by the Louisiana Assessor's Association Oil and Gas Committee ("LAA") risks expanding the current backlog of roughly 4,600 orphan wells requiring plugging and remediation (or "cleanup") and nearly 20,000 inactive wells requiring oversight from the Office of Conservation.¹ EDF internal analysis estimates that, in the absence of policy reform, Louisiana can anticipate cost burdens of at least \$3.5B related to plugging and remediating orphan wells in the state through 2050.

Orphan wells emit methane, a powerful climate warming gas, as well as other pollutants (e.g., brine, benzene, etc.) which pollute the air and groundwater, posing threats to environmental and human health. These wells are also costly for the state to plug and remediate and use taxpayer dollars to do so. Additionally, the management of orphan and inactive wells places an added cost burden on the already underfunded Office of Conservation.

We believe a few key changes to the proposed valuation methodology can avoid increased orphan and inactive wells in Louisiana and, therefore, mitigate unnecessary spending of taxpayer dollars on oil and

¹ Louisiana DNR SONRIS Database as of 7/27/2022. Count of wells are based on well status codes for orphan wells ("23 - Act 404 Orphan Well - ENG" and "26 - ACT 404 Orphan Well - Injection and Mining") and inactive wells ("31 - Shut-In - Dry Hole - Future Utility", "32 - Shut-In - Dry Hole - No Future Utility", "33 - Shut-In Productive - Future Utility", and "34 - Shut-In - Productive No Future Utility". Available at <https://sonlite.dnr.state.la.us/pls/apex/f?p=108:2700:16507058806346::NO:2700:::>

gas well cleanup and management. We urge the Commission to do the following related to the proposed changes concerning the valuation of oil and gas wells:

- 1) Work with the Office of Conservation to assess the likely impact of the proposed rule on incentivizing operators to keep wells in inactive status rather than plugging. This assessment should include whether the proposed rule would create additional inactive and orphan wells that the Office of Conservation would have to manage and/or plug.
- 2) Provide additional details regarding the proposed Discounted Cash Flow (DCF) assessment methodology on a publicly available website. This should include:
 - a. Details regarding production forecasts, with special attention paid to the treatment of currently inactive wells.
 - b. Details regarding expense forecasts, with special attention paid to the information that can be used to forecast expenses.
- 3) Strengthen components of the DCF assessment methodology to reduce economic incentives for keeping wells in inactive status rather than plugging. These include the following:
 - a. Forecast prices based on EIA's forecasts for years 2 to 5 and all subsequent years of the discounted cash flow rather than relying on historical prices from the past 20 years.
 - b. Work with the Office of Conservation to establish a sufficiently high minimum value for oil and gas wells that reduces incentives for long-term inactive wells. The Commission should keep the provision that uses the higher of: (1) the appraisal value based on the DCF methodology or (2) the minimum value assigned to oil and gas wells.
 - c. Assess the value of oil and gas wells using the DCF methodology at the well level. The higher of the DCF valuation or minimum value should also be performed at the well level, before determining the overall value of a lease with multiple wells (see §907.C of the proposed rule).

State of Oil and Gas Well Management in Louisiana

The state of Louisiana currently has roughly 4,600 documented orphan wells across the state. Louisiana State Legislative Auditor Daniel Purpera issued an audit report in 2020 ("2020 Audit") outlining the state of regulation pertaining to Louisiana's oil and gas wells, with particular attention paid to orphan wells.² The 2020 Audit generally outlines that, while oil and gas regulation has improved in Louisiana, current regulations and funding for the Office of Conservation are not adequate for Louisiana to keep up with the current influx of orphan wells or the management of currently inactive wells. The report calls out the following:

- 1) improved financial assurance regulations are still not sufficient to cover the cost of plugging oil and gas wells³
- 2) the Office of conservation has been unable to force wells with no future utility to comply with required well plugging timelines⁴

² Progress Report: Regulation of Oil and Gas Wells Management of Orphan Wells (hereinafter "2020 Audit"). March 11, 2020. Available at [https://app.la.state.la.us/PublicReports.nsf/0/C9D7297FEA93568D86258528006BA4F8/\\$FILE/0001FA2E.pdf](https://app.la.state.la.us/PublicReports.nsf/0/C9D7297FEA93568D86258528006BA4F8/$FILE/0001FA2E.pdf)

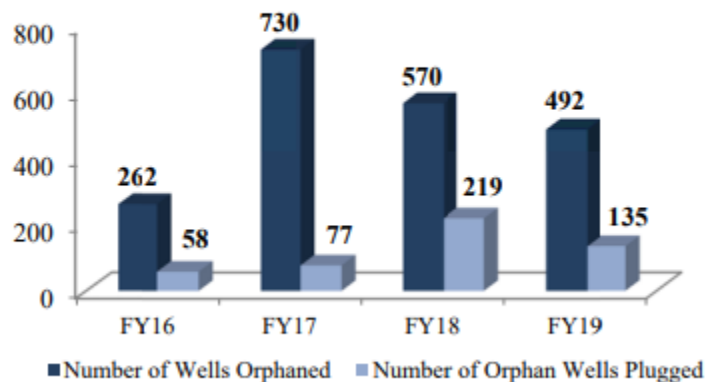
³ 2020 Audit at 2-3.

⁴ 2020 Audit at 2-3.

- 3) lack of funding was cited as one reason the Office of Conservation was not able to perform required inspections⁵
- 4) Louisiana has over 17,000 inactive wells paying \$250 a year to retain inactive status, and 93% of these had no schedule of abandonment (“SOA”)⁶
- 5) fees on inactive wells help to disincentivize long-term inactive status and provide incentives to plug⁷
- 6) Louisiana has multiple challenges to plug the current and growing inventory of orphan wells.⁸ These challenges face the Office of Conservation include “lack of funding, difficulty finding licensed contractors to plug wells, and financial institutions not honoring their obligation to pay financial security.”⁹
- 7) it would take \$128M and 20 years to address the current population of orphan wells based on the average cost of \$30,000 per well.¹⁰ However, this is likely an underestimate as some wells can cost far more to plug, such as an instance where \$8.8M were spent to repair and plug only two orphan wells with high pressure and leaking gas.¹¹
- 8) Exhibit 11 from (below) shows the number of wells orphaned and the number of wells plugged over the course of FY 2016 through FY 2019.¹²

Louisiana’s Office of Conservation is already overburdened and overwhelmed dealing with the cleanup or orphan wells and the management of currently inactive wells. The state of Louisiana should consider all angles for improving incentives for operators to plug inactive wells rather than increasing incentives for long-term idling. The Commission should also assess the potential cost burden on the Louisiana Office of Conservation related to increased orphan well cleanup and increased management of orphan and inactive wells as a result of this proposed tax change.

Exhibit 11
Wells Orphaned and Plugged
Fiscal Years 2016 through 2019



Source: Prepared by legislative auditor’s staff using data from SONRIS.

⁵ 2020 Audit at 11.
⁶ 2020 Audit at 15.
⁷ 2020 Audit at 15.
⁸ 2020 Audit at 17.
⁹ 2020 Audit at 19.
¹⁰ 2020 Audit at 19.
¹¹ 2020 Audit at 19.
¹² 2020 Audit at 19.

DCF Methodology

An income-based approach is a plausible one for the appraisal of oil and gas wells. EDF understands new rules value oil and gas wells based on the value of future production combined with value of the attached surface equipment (the “production train”). First, EDF requests more clarification on the valuation of wells using the DCF methodology before adopting the proposed rule changes. Second, EDF proposes a few changes to the DCF methodology to that will reduce the amount of taxpayer dollars required for cleanup and management of inactive and orphan wells in the state. A 2020 audit of the Office of Conservation states that even a small fee on inactive oil and gas wells “helps ensure the operators do not place their inactive wells in future utility status for extended periods of time to avoid plugging the well.”¹³

Clarification of, and Proposed Changes to, DCF Methodology

The proposed rule changes recognize four key parameters for estimating the DCF of an oil and gas well: 1) production forecast, 2) price forecast, 3) expense forecast and 4) the discount rate. The first three parameters generate a future income stream, and the last parameter converts future income streams into a present value. The proposed rule change also implements a minimum appraisal for oil and gas wells.

Forecasting production can be a difficult and subjective exercise. The critical estimated forecast parameters (i.e., initial production rates, the initial decline rate, and the rate of decline in future years) can be very uncertain. The volume of production can also depend on other parameters such as geological features of a well, the level of reserves under the well, and how oil and gas producers respond to changes in price. However, the proposed rule changes suggest that the assessor would primarily rely on past production to estimate future production. Due to the myriad of factors affecting future production, and in order to substantiate the Commission’s methodology, the Commission should make additional details regarding production forecasts available on a publicly available website. This should include details on how “production history for the well” will be “analyzed by the assessor for relevant trends and patterns” to develop a production forecast.¹⁴ The Commission should also clarify whether currently inactive wells, nearly 20,000 in total, are assumed to have no future production if past production is the key input to incorporate into the assessor’s forecasts.¹⁵

Price forecasting is another uncertain parameter affecting the DCF of an oil and gas well. This is truer than ever with Henry Hub gas prices rising from \$3.76 per MMBTU in December 2021 to \$8.14 per MMBTU in May 2022.¹⁶ EDF agrees with using average prices over the previous year received by the working interest owner as the starting point price in the DCF. EDF further agrees with adjusting this price

¹³ Progress Report: Regulation of Oil and Gas Wells Management of Orphan Wells (hereinafter “2020 Audit”) at 11. March 11, 2020. Available at [https://app.la.state.la.us/PublicReports.nsf/0/C9D7297FEA93568D86258528006BA4F8/\\$FILE/0001FA2E.pdf](https://app.la.state.la.us/PublicReports.nsf/0/C9D7297FEA93568D86258528006BA4F8/$FILE/0001FA2E.pdf)

¹⁴ LAA Multi Chapter Proposal (hereinafter “LAA Proposal”) at OG – 13. Available at https://www.latax.state.la.us/Menu_RulesRegulations/Rules%20and%20Regs%20Changes/Proposals/2009/LAA%20Multi.pdf

¹⁵ Louisiana DNR SONRIS Database as of 7/27/2022. Count of wells are based on well status codes for inactive wells (“31 – Shut-In – Dry Hole – Future Utility”, “32 - Shut-In – Dry Hole – No Future Utility”, “33 – Shut-In Productive – Future Utility”, and “34 – Shut-In – Productive No Future Utility”. Available at <https://sonlite.dnr.state.la.us/pls/apex/f?p=108:2700:16507058806346::NO:2700::::>

¹⁶ EIA Henry Hub Natural Gas Spot Price. Available at <https://www.eia.gov/dnav/ng/hist/rngwhhdm.htm>

in year 1 of the DCF based on the WTI price for oil and Henry Hub spot price for gas from EIA's Short Term Energy Outlook. However, the proposed rule switches to an inconsistent source to project prices in all future years after year 1 of the DCF by relying on historical prices from the 20 years. The Commission should instead continue to use price projections based on EIA analysis for all future years of the DCF. To do so, the Commission can consider two options: (1) use the long term forecasted oil and gas prices EIA publishes in its Annual Energy Outlook (AEO) for all years after year 1 of the DCF or (2) rely on prices from EIA's Short Term Energy Outlook for all years available and rely on EIA's AEO for all future years the Short Term Energy Outlook does not cover. With regards to the prices from EIA's AEO, the assessor should consider use projected prices for the "Reference Case", which assumes prices based on current laws and regulations through 2050.¹⁷

Forecasting future expenses is another necessary but uncertain aspect of the DCF. Operations and maintenance costs, for example, can be very difficult to estimate, particularly in the absence of operator cost data. §907.B.3 indicates the assessor "should make effort to obtain and consider actual historical expenses being incurred by the operator as documented on expense statements required to be provided to the assessor pursuant to §903.C. Absent this information, an assessor may assume a minimal amount and/or otherwise rely on their own judgment using best information available."¹⁸ The approach of using historical expenses or assuming a minimal amount of operating expense is sensible. The assessor should articulate what information is used to develop expense projections if not based on historical operator cost data. This information should be published on a publicly available website.

The discount rate is the final critical piece of any DCF analysis, affecting how much future income is discounted relative to income received in the present. The proposal only sets forth that a base minimum discount rate will be established. The proposed rule allows the assessor to "use a higher rate to account for additional property-specific risks and/or other considerations as appropriate for the determination of each property's market rate."¹⁹ A higher discount rate would reduce the valuation of the property and therefore that assessment of the property. The Commission should establish a base discount rate that is sufficiently low. The Commission should explain the following information on a publicly available website: (1) the economic rationale for the established base discount rate and (2) the allowable risks and cases that could warrant a higher discount rate.

We support the assignment of a minimum value assigned to oil and gas wells with "zero economic life."²⁰ However, the revised cost tables could result in a decrease in the taxes that inactive wells would be assessed. This practice would provide additional incentives for operators to keep inactive wells in inactive status rather than plug these wells. This revision would also prime the state for an influx of orphan wells in the face of an economic shock, such as the sharp drop in oil prices in 2020.²¹ If all currently inactive wells were assumed to have zero future production, these wells would all have a

¹⁷ EIA Annual Energy Outlook 2022 at Tables 12, 13. Available at <https://www.eia.gov/outlooks/aeo/>

¹⁸ LAA Proposal at OG-15.

¹⁹ LAA Proposal at OG-15.

²⁰ LAA Proposal at OG-16.

²¹ IOGCC Report (2019). "Idle and Orphan Was Wells: State and Provincial Regulatory Strategies" at 8, 9. "The risk of wells becoming orphans is heightened when oil and gas prices decline or are unstable, as in recent years, or when operators transfer aging wells to other companies." Additionally, "Idle wells, as compared to active wells, also present a greater risk of becoming orphan wells and imposing a liability on the state or province for plugging and restoration." Available at https://iogcc.ok.gov/sites/g/files/gmc836/f/2020_03_04_updated_idle_and_orphan_oil_and_gas_wells_report.pdf

negative net present value based on the DCF methodology. Thus, this provision could impact more than 20,000 wells, particularly after accounting for additional low-producing wells.²² The Commission should work with the Office of Conservation to establish a reasonable minimum value for wells with “zero economic life”. The Commission should keep the same approach of valuing the oil and gas wells based on the higher of: (1) the appraisal value based on the DCF methodology or (2) the minimum value developed in concert with the Office of Conservation.

* * *

EDF appreciates the opportunity to comment on the proposed recommendations related to oil and gas well valuation, and we look forward to working with the Louisiana Tax Commission and other stakeholders in ensuring that Louisiana’s laws and regulations are designed to reduce orphan well burdens on Louisiana’s communities, ecosystems, and taxpayers.

Respectfully submitted,

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²² Louisiana DNR SONRIS Database as of 7/27/2022. Count of wells are based on well status codes for inactive wells (“31 – Shut-In – Dry Hole – Future Utility”, “32 - Shut-In – Dry Hole – No Future Utility”, “33 – Shut-In Productive – Future Utility”, and “34 – Shut-In – Productive No Future Utility”. Available at <https://sonlite.dnr.state.la.us/pls/apex/f?p=108:2700:16507058806346::NO:2700:::>