If/Then: New Cuts to Oil and Gas Royalty Rates in Budget Reconciliation Will Reduce Federal Revenues

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Two proposals from the House Committee on Natural Resources and the Senate Committee on Energy and Natural Resources for the budget reconciliation bill will reduce the royalty rates paid by companies on publicly owned oil and gas. If implemented, the Senate's latest proposal will result in a loss of $6 billion in federal revenues over the next decade and tens of billions of dollars thereafter. Oil- and gas-producing states, which share in the royalty revenues produced on federal lands, will suffer similar magnitudes of lost royalties.

Editor's Note: This blog post was updated on June 13, 2025, with refined model results that were updated to reflect additional provisions from the bill released by the US Senate Committee on Energy and Natural Resources on June 11. The update also includes a presentation of the impact of reducing royalty rates on states' share of royalty revenues, among other model refinements.

Last month, the House Committee on Natural Resources marked up its language for the budget reconciliation bill that's currently making its way through Congress. Now, the Senate has released its own version, which also exempts from royalties natural gas that is vented or flared. The bills make major changes to the process by which the federal government leases out the right to extract publicly owned oil and gas. The bill goes beyond simply undoing Biden-era increases in royalty rates paid by oil and gas companies that operate on federal lands; for instance, the bill expands noncompetitive approaches to leasing and adds new mandates for the US Department of the Interior to offer certain minimum lease sales. But because royalties represent over 90 percent of the federal government's share of the revenues from the sale of its oil and gas, the lower proposed royalty rates are expected to be a key driver of the bill's overall impacts on the federal deficit.

The proposed bill cuts the royalty rates that oil and gas companies need to pay on new federal leases by about 25 to 33 percent. I estimate that these cuts will lead to $6 billion in losses to the federal government between 2026 and 2035, with growing annual losses averaging nearly $3 billion per year in 2036 to 2050. But these values represent only the portion of royalties that will be retained by the federal government, which amounts to more than 50 percent of the total. The remainder goes to states where the oil and gas production occurs, to **support water projects in the American West** and to the **Land and Water Conservation Fund**, among other recipients. These other uses of the royalties imply that the royalty cuts will lead to revenue losses for oil- and gas-producing states, as well, of a similar order of magnitude so long as the royalty cuts are in effect.

By way of comparison, **a memo circulated by policymakers in January** hypothesized that other provisions related to oil and gas leasing could produce savings of a similar magnitude of about $4 billion–$5 billion. However, that document does not mention reductions in royalty rates, implying that the hypothesized savings may be overstated in a world of lower royalties.

Together, these findings suggest that these oil and gas leasing provisions are unlikely, on their own, to raise enough revenues to meet the $1 billion in savings required by the budget resolution.

The Details

Today, when the federal government issues a lease to a company conveying the right to extract publicly owned oil or gas, the government typically receives a royalty rate equal to 16.67 percent of the revenue from the oil and gas production for wells drilled onshore and 18.75 percent of the revenue from production offshore. These rates are **in line with or slightly below current market rates**. Prior to the Inflation Reduction Act of 2022, the rate paid onshore was a relatively low 12.5 percent.

(The government also receives other sources of revenue, including up-front "bonus bids" and annual rental payments, but royalties make up the lion's share of the federal government's cut.)

The bills from the House and Senate natural resources committees would reduce both the onshore and offshore royalty rates to as low as 12.5 percent on all newly issued leases. While the change to royalties for offshore leases would be permanent, the change would be applicable only to new onshore leases that are issued during the next 10 years. Notwithstanding this 10-year sunset for onshore royalty rates, oil and gas production often continues on a lease for decades after production begins, meaning that the lower royalty rates on leases issued during the 10-year budget window will create persistent revenue losses even after that window closes. In addition, the Senate version of the bill would exempt from royalties natural gas that is vented into the atmosphere or flared at the wellhead.

I modeled the impacts of these changes to royalties in the Senate bill using the **Resources for the Future Dynamic Oil and Gas Market Analysis (DOGMA) Model**, which I have developed across several peer-reviewed papers that have been published in economics journals. This model has formed the basis for **past testimony in front of the House Committee on Natural Resources**. DOGMA is a spatially granular model that represents oil and gas production at the county level, distinguishes between federal and nonfederal sources of production, and projects how oil and gas production will respond to changes in energy prices and royalty rates. I used the central version of DOGMA that underlies **a recent paper** to model the proposed changes to the royalty rates on federally leased land.

The results are shown in Figure 1, which charts the projected federal royalty revenues from leases issued during the relevant onshore and offshore leasing periods (2026–2035 for onshore, 2026–2050 for offshore). The solid blue and green curves show federal royalty revenues from new leases under current law (16.67 percent royalties for onshore leases, 18.75 percent for offshore), while the

dashed lines show those projected revenues under the proposed lower 12.5 percent royalty rate. The royalty rates on existing leases are unchanged, so the curves begin at close to zero in 2026 (when little to no production is subject to the change in royalty rates) and rise gradually over time as more leases are subject to the new royalty regime. The 2035 sunset for the changes to onshore royalty rates reduces the amount of revenues subject to the royalty change beyond 2035, but the sunset does not eliminate revenue losses after that point because leases issued prior to the sunset will continue to produce at their contracted lower royalty rates.

The dotted red line shows the federal government's share of this change in revenue, equivalent to the combined difference between the solid and dashed lines. The cumulative loss during the 10-year budget window is $6 billion, followed by another $42 billion in losses over the 2036–2050 period. About 40 percent of the near-term losses—$2.3 billion over 10 years—are due to the onshore royalty cuts. Because those reduced royalties sunset for onshore leases issued after 2035, the royalties lost from offshore leases dominate the total in the long run.

The revenue estimates from the model account for the fact that lower royalty rates would encourage more oil and gas development due to improved profitability (Figure 2). However, the increase in oil and gas production on federal lands would be much smaller than the direct effect of a large reduction in the share of the resulting revenues. Indeed, basic economic theory shows that for lower royalty rates to increase revenues through the indirect effect of increased oil and gas production, the price elasticity of supply would need to exceed $(1 - r)/r$, where r is the current royalty rate. An r of 18.75 percent would require an elasticity of at least 4.33, while an r of 16.67 percent would require an elasticity of at least 5. Both values are implausibly large: by comparison, **my model's central estimate for the long-run elasticities of supply for US oil and gas** are 0.68 and 0.28, respectively.

These results come with two caveats. First, I do not estimate any changes in the up-front payments from oil and gas companies for the right to lease federal lands, called bonus bids, which might be induced by lower royalty rates. Theoretically, lower royalty rates may increase the size of bonus bids. However, bonus bids typically represent a mere 5 percent on average of the revenues generated by federal oil and gas leases, suggesting that any increases in the bonus bids that are driven by changes in the royalty rates will be small, relative to the large losses from reduced royalties themselves. Further, the bill's reintroduction of noncompetitive leasing could be expected to reduce the revenues from bonus bids.

Second, I do not estimate the impacts of the bill's other provisions, such as required lease sales and minimum offered acreage, because the impacts of those provisions are very unclear. Projecting the impacts of these provisions on acres offered, acres sold, acres developed, oil and gas produced, and the timing of all the above presents myriad difficulties. Still unclear is whether these provisions would in fact induce the Trump administration to conduct any more oil and gas leasing than it already plans to do under existing authorities, suggesting little practical impact of those provisions, at least over the next few years.

Overall, my findings suggest that the royalty provisions in the reconciliation bill will entail substantial amounts of forgone revenues. These lost revenues will increase the federal deficit and reduce the funding that otherwise would flow to oil- and gas-producing states, water projects in the American West, and national parks.

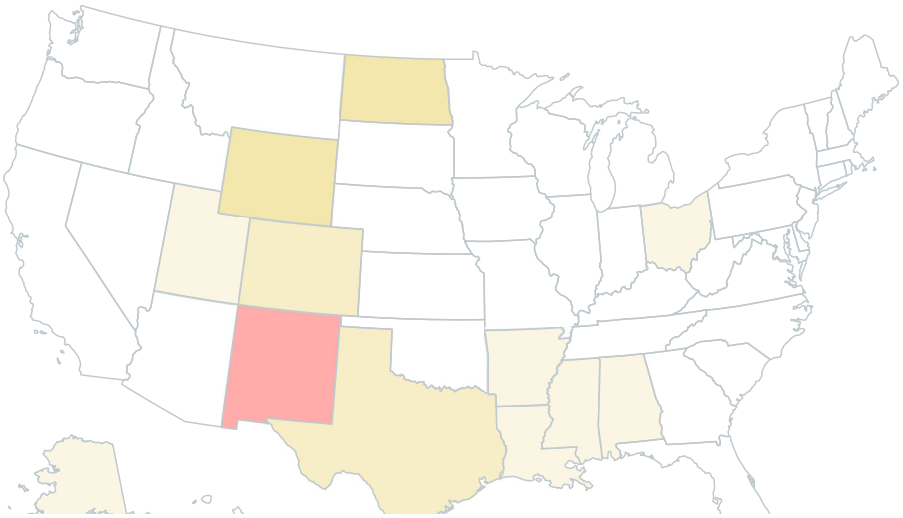
Impacts on the States

States also will lose revenue from reduced royalty rates. Figure 3 below shows the revenue losses to the states from lower royalty rates charged on both onshore and offshore production. New Mexico bears the brunt of lower royalty rates in both the near and long terms, because this region is the locus of most of the new development that would be

affected by federal leasing changes. These estimates account for revenue sharing of royalties from production in the Gulf of Mexico distributed to the four Gulf states (Texas, Louisiana, Mississippi, and Alabama) under the Gulf of Mexico Energy Security Act, including the proposed increase in the cap on state revenue sharing in the Senate bill.

Figure 3. Change in State Royalty Revenues

State losses, 2026–2035 | State losses, 2036–2050



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