GOMESA Forecast and Policy Update

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Disclaimer

This analysis not designed to serve as basis for valuation of revenue bonds.

EXECUTIVE SUMMARY

This report summarizes an updated forecast for revenues associated with the Gulf of Mexico Energy Security Act (GOMESA) and the potential impact of several proposed changes to the program. Under the existing program, the State of Louisiana can expect the following:

- Revenues allocated to the State of Louisiana from FY2020 are expected to fall below $100m after reaching $124.6m in FY2019. Our reference forecast for FY2020 is $97.5m with a low and high range between $94.1m and $100.6m.
- In FY2021, revenues are expected to fall further to $87.6m due to a full year of low oil prices and depressed bonus bids.
- Starting in FY2022, revenues will begin to grow as the long-term effects of increasing production translate into higher royalty payments, offsetting potentially lower bonus bids even if prices remain low for a more extended period of time.

Several policy scenarios were examined and the most consequential alternative was found to be removal of the revenue sharing cap. In addition, expanding the set of leases that qualify for revenue sharing to include those with start dates between 2000 and 2006 would increase revenues, but by far more if the cap were also removed.

The analysis contained herein does not account for potential changes to the regulatory framework, which are often discussed with a new administration.

Introduction

Building on prior research detailing the mechanisms driving revenues and allocation of dollars under the Gulf of Mexico Energy Security Act (GOMESA), this study sought to update forecasts of GOMESA revenues and study the effects of several potential policy changes. Starting in late 2019, the research team analyzed oil and gas production and the outlook for future leasing based on information available at the time. In early 2020, oil prices fell due to geopolitical forces then the COVID-19 pandemic sapped demand leading to a rapid and historic decline in oil prices as well as worsening of the near-term outlook for oil and gas. The research team provided updated assessments of the outlook for GOMESA revenues, but delayed a full update and finalizing of the forecast until the degree of uncertainty began to subside and the outlook for oil and gas was clearer. This report summarizes the final, revised forecasts for GOMESA revenues as well as general information related to the effect of the major policy scenarios analyzed over the last year using updated data through fall 2020.

Background

The Gulf of Mexico Energy Security Act (GOMESA) was passed into law in 2006 and established a process for sharing a limited set of revenues known as Qualified Outer Continental Shelf (OCS) Revenues from the Gulf of Mexico with four Gulf Producing States (GPSs) and their Coastal Political Subdivisions (CPSs). Under GOMESA, the federal government shares 50% of revenues from leases starting in 2007 or later, which represent a small but growing portion of production in the Gulf of Mexico. These shared revenues include bonus bids, rents and royalties and are subject to a revenue sharing cap of $500 million, which limits how much can be shared such that no more than $300 million can be shared with the four GPSs and $75 million shared with CPSs across all four states. There is a specific area defined as Phase I that is not subject to the revenue sharing cap, but it has not made a significant contribution to revenues in recent years. In addition, the revenue sharing cap was raised to $650 million for fiscal years 2020 and 2021.

The total amount of qualified OCS revenues in each fiscal year is allocated according to the following distribution: 50% directed to the U.S. Treasury; 37.5% to GPS; and 12.5% to the Land and Water Conservation Fund. Each state's portion of the GPS 37.5% allocation is calculated by a formula based on the inverse distance to lease sites in the Gulf of Mexico. Of the total dollars distributed to each state, 20% (or a total of 7.5% of total Qualified OCS revenues) is allocated to the CPSs within the state using a formula that accounts for inverse distance to lease sites in the Gulf of Mexico, population, and the coastline length of each CPS. In recent years, the state allocation rule has resulted in Louisiana receiving approximately 44% of the 37.5% GPS allocation, of which 80% is the state share and 20% is shared among CPSs. For a more detailed review of GOMESA and the allocation rules, see Barnes, Mason and Terrell (2018).

While GOMES provides much needed revenue to cover a portion of coastal restoration investments outlined in Louisiana's Coastal Master Plan, the revenue sharing agreement falls far short of the approach used to share revenue derived from federal lands within a state's borders. This general rule is that half of all revenues from interior federal lands are shared with states, which is often rationalized as providing resources to help state's create and maintain the infrastructure and workforce needed to support those oil and gas activities. While the support provided by coastal states in developing offshore resources is just as critical, revenue sharing is far more limited. Because of this disparity, Gulf Coast states led by Louisiana have pushed for amendments to GOMESA to expand revenue sharing with several proposals having been suggested. The most obvious solution would be to bring revenue sharing from the Gulf of Mexico to parity with interior states, expanding revenue sharing to all oil and gas activity in the Gulf of Mexico (rather than only from leases starting in 2007 or later), increasing the percent of revenues shared with states to 50% and removing the revenue sharing cap.

Despite the simplicity and fairness of such an approach, Congress has demonstrated no interest in such a reform to date. Several variations on this basic proposal have been offered, often focusing on modifying only one or two of those three major provisions.

Over the past year, two policy reforms appeared to gain some traction and will be the focus of the policy scenarios included in this report. One proposal was to partially expand the set of leases that would qualify for revenue sharing to include all leases starting in 2000 or later. While not as broad as the general revenue sharing with federal land, this proposal offered a compromise of sorts, aiming to expand the degree of revenue sharing, but in a more limited way. The second major proposal was to eliminate the revenue sharing cap. Given that revenues tied to oil and gas development on federal land face no cap on shared revenues, this seemed like a logical and equitable reform. In this analysis, we consider each policy alternative separately as well as the effect of applying both reforms to explore the general impact such changes would have on Qualified OCS Revenues, each of which would provide an alternative starting point for sharing revenues in future years.

Forecast

The forecast was developed using an updated version of the model presented in Barnes, Mason and Terrell (2018). However, rather than forecasting oil and gas prices directly, three scenarios were created using the EIA short-term and long-term oil and gas price forecasts as well as futures prices. For the reference model, we use the 2020 and 2021 EIA short-term price forecasts, which were updated October 6, 2020. The only EIA forecasts for years past 2021 are long-term projections which were created in January 2020. While the low and high prices from that forecast continue to provide a large range, the reference price forecast may present a misleading picture because it was created prior to the oil price downturn associated with COVID-19. Thus, we use futures prices as our reference forecast of oil and gas prices for the years 2022-2030.[1] For our high and low models we use the EIA long term projections which provide a large range of potential oil prices.

Figure 1 graphs the forecast under the low, reference and high scenarios. The range of low and high is not an absolute minimum and maximum, but represents a range that is highly likely to include the actual value based on the price alternatives discussed above and a set of more conservative and more aggressive assumptions for several inputs related to proprietary data that will never be disclosed. For example, royalties are based on the actual transaction price in most cases, but firms are allowed to deduct transportation costs. That type of detailed transaction information is never published due to confidentiality protections, so we develop an average deduction relative to market-wide prices based on past history, which we address using observed historical GOMESA revenues, production, and prices to create an "effective royalty rate."

The range of estimates is quite narrow for FY20 due the fact that both auctions for the year have already occurred and production data were complete, or nearly complete through July 2020. Though GOMESA qualified production continues to rise, lower bonus bids, particularly from the March 2020 lease sale, and the large decline in oil prices due to COVID-19 will reduce FY20 gulf-wide GOMESA qualified revenues from over $900 million in FY 2019 to a forecast between $710 million and $760 million in FY20.

The variation across the low, high, and reference rises over time due to the current lack of data on FY21 lease sales and uncertainty about future prices and production. Under both the reference and the low scenario, our models predict lower gulf-wide GOMESA revenues in FY21. This reflects an anticipated continuation of the current low price environment which reduces predicted bonus bids in both lease sales. Likewise, a full year of lower prices in FY21 rather than a partial year in FY20 dampens

[1] Futures prices are not available after 2030.

our royalty forecast. The high scenario includes a rebound in prices in FY21 which leads gulf wide GOMESA revenues to reach the enhanced cap of $1.2 billion in FY21.

Both the reference forecast and low forecast rise over time with the reference forecast reaching the $1 billion revenue sharing cap in FY24 and the low forecast reaching that cap in FY26. The high scenario includes a drop in FY22 to reflect the cap's fall back to $1 billion in FY22. A close look at Figure 1 reveals very modest revenue above the cap in years after the cap was reached, reflecting a small amount of production in the Phase I area, which is not subject to the revenue cap.

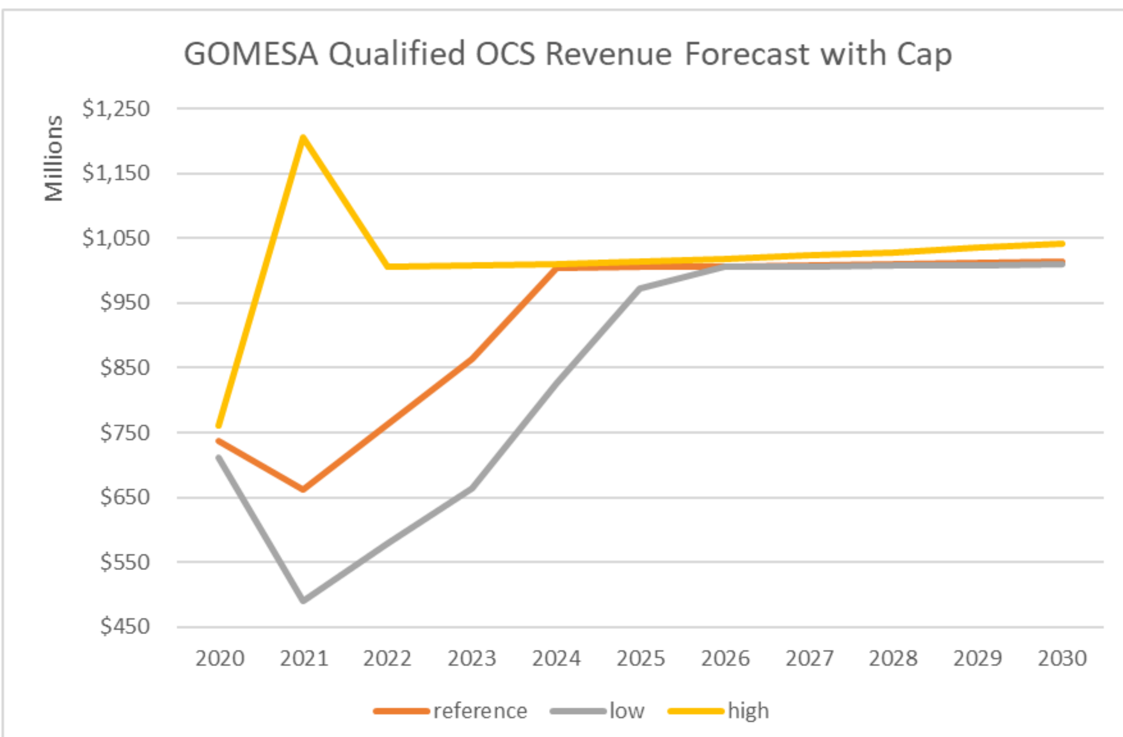

Figure 1: GOMESA Qualified OCS Revenue Forecast with Cap.

Table 1 converts gulf wide revenues into Louisiana state revenues for the reference scenario. For reference, this Table presents both historical GOMESA Louisiana GOMESA revenues and projected revenues under the reference scenario. Recall that the GOMESA revenue sharing cap limits revenue sharing to the four states to $300 million. Applying Louisiana's estimated share implies that Louisiana' GOMESA revenue is capped at roughly $132 million (excluding any Phase I area revenues) under current law. GOMESA revenues grew in FY18 and FY19, finishing very close to the revenue sharing cap at $124.5 million.

The FY20 GOMESA reference forecast of $97.5 million represents a decline from last year's $124.5 million due largely to weak bonus bids at the March 2020 lease sale and the lower price of oil in the latter portion of FY20. The long run story that production and royalties from GOMESA-qualified leases will tend to grow over time can be clearly seen in the production data as anticipated. In FY18, total oil production was about 24.5MMbbl, which grew to 44.9MMbbl in FY19. For FY20, we expect that to reach about 55.5MMbl so the base that drives long term GOMESA revenues continues to grow. However, low prices will always undercut the revenue calculation and the contribution of royalties to total GOMESA revenues is not yet big enough to make up for weak bonus bids. Over time, production will continue to grow and the long run trend is still expected to be a positive one.

Applying the 2021 EIA short-term price forecast for FY21 leads to a slight dip because lower prices apply for the entire year rather than only part of the year as was the case in FY20. Our model predicts both lower royalty and bonus bid revenues in this lower price environment. Louisiana's state GOMESA revenues are projected to bounce back above FY20 levels in FY22 under the reference scenario and continue to rise over time. The revenue sharing cap becomes binding in FY24 with growth above the cap limited to Phase I area revenues, which are not subject to the cap.

Table 1: Historical and Predicted Louisiana State GOMESA Revenues Under the Reference Price Scenario

Federal Fiscal Year	*LA State GOMESA Disbursement*
2017	$66.3
2018	$75.8
2019	$124.6
2020	**$97.5**
2021	**$87.6**
2022	**$100.9**
2023	**$114.3**
2024	**$132.9**
2025	**$133.1**
2026	**$133.2**
2027	**$133.4**
2028	**$133.6**
2029	**$133.9**
2030	**$134.2**

Policy Scenarios

We investigated three proposed policy changes, lifting the cap, expanding GOMESA to include all leases beginning as early as 2000 rather than only those starting in 2007 or later, and both lifting the cap and changing the start date defining GOMESA qualified leases. Given the current date, we analyze all policy changes assuming that they would occur in FY21 at the earliest. The general effects of the first policy scenario, eliminating the revenue sharing cap in the current legislation, can been seen in Figure 2. Eliminating the revenue sharing cap dramatically increases gulf wide GOMESA revenues for years after the cap is binding in all three scenarios. Annual sharable revenues top $2 billion, or double the revenue sharing cap, by FY22 in the high scenario. Both the low and reference forecast of GOMESA revenues also reache that threshold before the end of the forecast horizon.

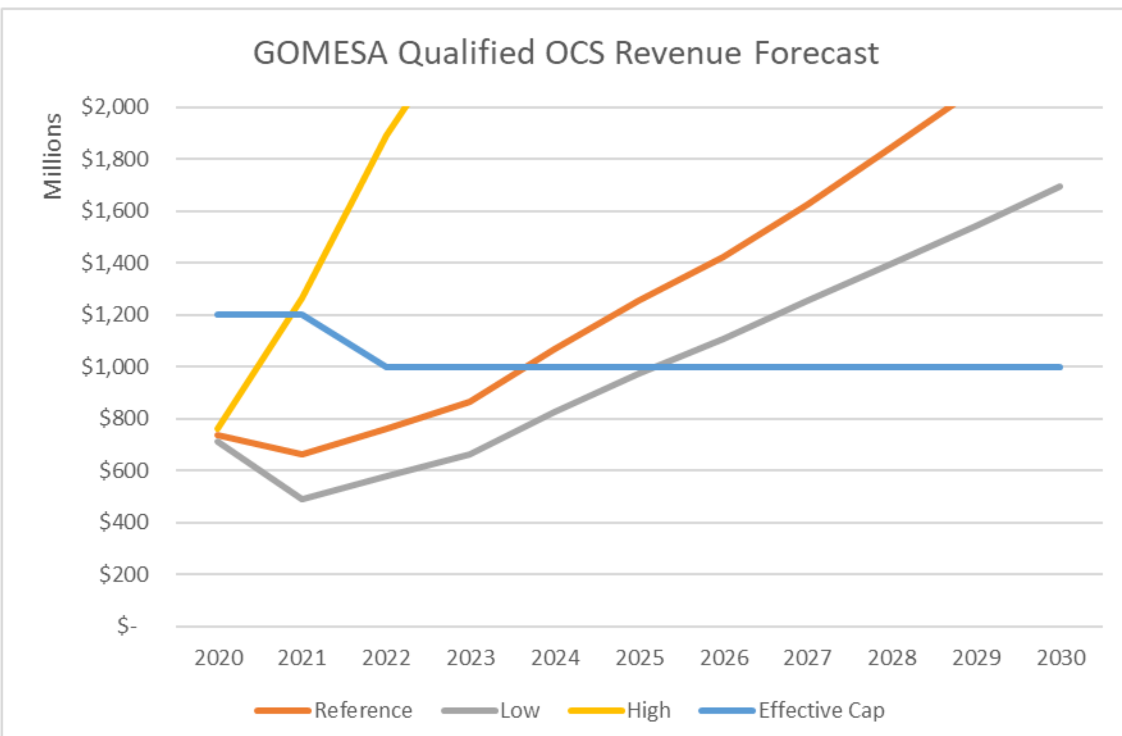

Figure 2: GOMESA Qualified OCS Revenue Forecast without Cap.

Currently GOMESA is limited to leases that started in 2007 or later. The second policy proposal is to modify the GOMESA legislation to include leases beginning in 2000 or later. Figure 3 graphs forecasts for the low, reference and high scenarios under this proposed policy change. Because this policy alternative assumes the revenue sharing cap still exists, the primary impact of this policy change is reaching the cap faster than under the current law. Because the cap is already reached quickly in a high price environment, the only effect of this policy change is more revenue from production in the Phase I area. For both the reference and low scenarios, the policy change has a much greater impact by leading revenues to hit the cap in FY21 rather than FY24 for the reference or FY26 in the low scenario under the current legislation.

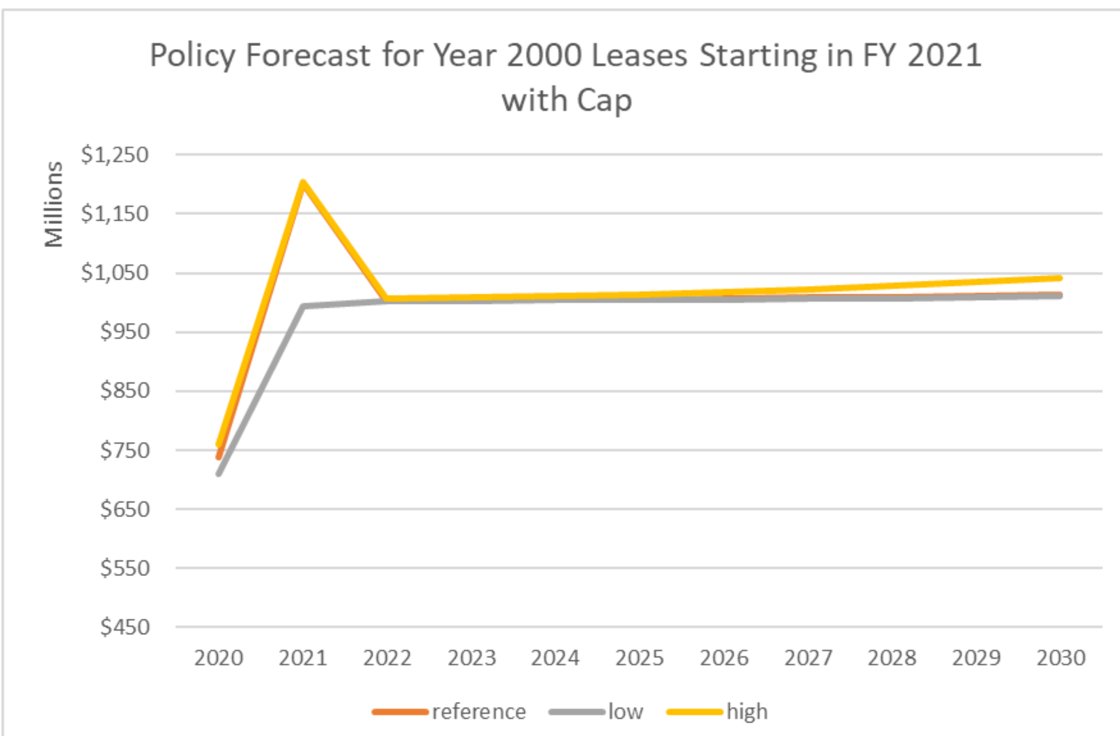

Figure 3: Policy Forecast for Year 2000 Leases Starting in FY 2021 with cap

Figure 4 graphs predicted revenues under the three scenarios assuming both a change in the start date to include all leases beginning in 2000 or later and elimination of the revenue sharing cap. This increases the number of GOMESA qualified leases as well as GOMESA qualified production and allows sharable GOMESA revenue to fully capture this additional production. Not surprisingly, this policy change greatly increases revenues under all three scenarios. For the high scenario, revenues are more than double the current cap almost immediately. Within five years, the reference forecast reaches $2 billion, or double the current cap. The low model also reaches this threshold well before the end of the forecast period.

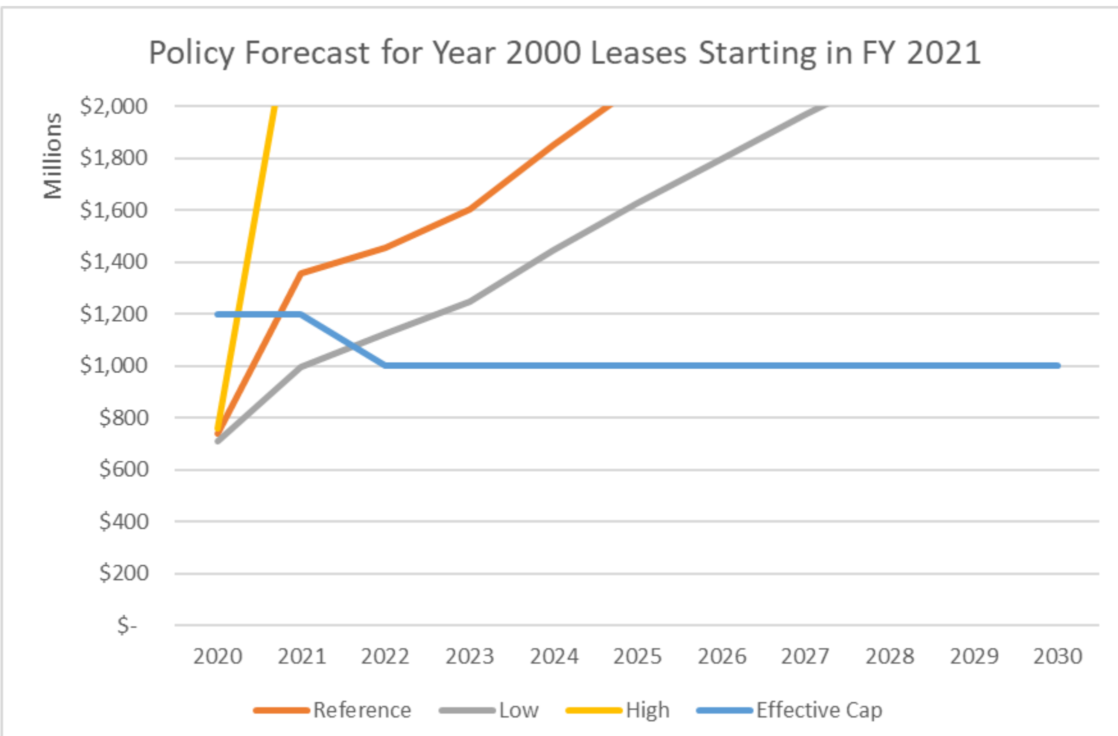

Figure 4: Policy Forecast for Year 2000 Leases Starting in FY 2021 without cap

A comparison of the benefits of the policy changes requires comparing income streams over time. For example, amending legislation to allow GOMESA to include leases beginning in 2000 increases short-term revenues and allows revenues to reach the cap earlier. Eliminating the cap increases revenues in later periods after the original cap would have been reached. Future amounts are typically valued less than current amounts and so this future stream of revenues must be discounted to present value to provide a more direct comparison of these policy alternatives. While alternative discount rates could certainly be used, we use a 7 percent discount rate, which is the base-case recommendation of the Office of Management and Budget for evaluating public investments and regulatory analyses. In reviewing the summary of policy alternatives shown in Table 2, discounted cumulative total revenues are seen to be most heavily impacted by removing the revenue sharing cap, especially in the high scenario. In general, expanding the set of leases that qualify for revenue sharing produces the expected result of increasing revenues, but the effect is limited with the revenue sharing cap in place.

Table 2: Cumulative Qualified OCS Revenues (Gulfwide total) Discounted at 7% (in billions $)

	LOW	REFERENCE	HIGH
CURRENT GOMESA W/CAP	$6.5	$7.2	$8.1
CURRENT GOMESA NO CAP	$7.6	$9.8	$28.3
YEAR 2000 LEASES W/CAP	$7.8	$8.0	$8.1
YEAR 2000 LEASES NO CAP	$12.0	$15.5	$41.7

Conclusion

The analysis summarized in this report provides an updated set of estimates for future GOMESA revenues disbursed to the state of Louisiana as well as a broad summary of the impact of several potential policy changes. Fiscal Year 2020 revenues are expected to drop slightly due to lower bonus bids at the March 2020 lease sale (a period after prices had fallen and early news about the spread of COVID-19 had increased economic uncertainty) and low oil prices that impacted the latter portion of the fiscal year. In fiscal year 2021, GOMESA revenues may fall further due to low prices and depressed bonus bids affecting the full fiscal year. However, as time passes and more existing GOMESA leases start to produce, the long run trend of increasing royalty revenue will help push up total GOMESA revenues and eventually hit the revenue sharing cap. Because there is substantial opportunity for growth above this cap, the effect of removing the cap stands out as the most consequential among the set of policy alternatives considered. However, moving the start date from 2007 back to 2000 would also help increase revenues, especially if combined with removing the revenue sharing cap.

Of course, this forecast assumes no major regulatory changes in the Gulf of Mexico. New federal policies regarding oil and gas drilling could have a sizeable impact. As a candidate, President-elect Biden proposed an end to new drilling and leasing in federal waters, which would significantly curtail long run growth in oil and gas activity in the Gulf of Mexico. However, the near-term growth that pushes revenues up to the existing revenue sharing cap is driven largely by increases in royalties from leases already in existence. Therefore, even a dramatic slowdown in new leasing may not have large an effect on GOMESA revenues as might initially be expected. On a related note, President-elect Biden's platform also called for new environmental policies to be paired with targeted investments in coastal areas most impacted by climate change. Independent of any policies that may impact the overall level of oil and gas revenue generated in the Gulf of Mexico, there could be renewed opportunities to revisit amendments to GOMESA's revenue sharing rules, especially if additional dollars are tied to environmental restoration.

References

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