Regular Mineral Gross Receipt Tax Forecast
As of November 2017

One of the most dynamic industries in the State is the natural gas industry. Recent technological advances are now making possible profitable drilling for natural gas in underground shale deposits around the World, including the Marcellus Shale formation in West Virginia. These technological advances helped create some competitive advantages for natural gas over coal as a fuel choice in the generation of electricity. Recent coal industry production decreases are largely attributable to the combination of market gains for competing natural gas along with lower export demand for metallurgical coal between 2012 and 2016. Significant improvements in coal export markets beginning in late 2016 lifted overall coal production levels by roughly 13% in 2017 from a low of less than 80 million tons in 2016. However, the domestic steam coal market remained challenging with the likelihood of continuing contraction over time due to competition from natural gas. During the current period of rapid growth in U.S. gas production from shale, there are both peaks and valleys of economic activity for an industry in search of long-term balance between supply and demand. Therefore, the forecast for the regular natural gas severance tax, a tax on gross receipts attributable to value of gas at the well-head, is constantly in flux along with both natural gas prices and natural gas production.

The latest forecast for coal, oil and natural gas severance tax collections includes the following information:

- Natural gas prices fell from $3.45 per thousand cubic feet (MCF) in CY2014 to less than $1.00 per MCF in CY2016 with local prices continuing to run at a significant discount compared with national averages due to lack of adequate transportation infrastructure. Despite volatile swings, average prices halfway through FY2018 were running roughly 60% ahead of prior year average. Additional major infrastructure improvements are anticipated to be in place between now and the end of CY2019.
- Average annual price is forecast to slowly improve from $2.20 per MCF in FY2018 to $2.85 per MCF by FY2023. Prices are expected to remain below their long-term averages due to various cost saving technological advances for shale well producers.
- After rising at an average annual rate of nearly 30% per year since 2010, natural gas production growth slowed to 4.3% in CY2016. Production is expected to grow more slowly toward 1.8 trillion cubic feet over the next five years. The pace of increase slows due to both market limitations and infrastructure needs. However, additional pipeline capacity should stimulate more production, particularly during the later years of the forecast period.
- Natural gas will largely maintain its recent gains in market share as fuel in the domestic electric power generation sector, especially due to its growing price advantage over coal.
- Tax revenues from oil and various natural gas liquids grew by roughly 50% in FY2017 in response to higher prices after falling by 41% between FY2015 and FY2016. However, these revenues account for just 10% of total collections.
- West Virginia coal sales are forecast to decline from nearly 90 million tons in FY2018 to less than 86 million tons in FY2019. Future production between 2018 and 2023 is expected to stabilize around 80-86 million tons per year.

All forward-looking statements are based on Tax Department projections associated with available information as of November 2017. Results will vary according to results of actual dynamic market changes and externalities that may not necessarily be adequately reflected in the forecast.

The following State severance tax revenue trends are currently anticipated for coal, natural gas and other minerals (local severance tax distributions are excluded from these numbers):

Fiscal Year	State Coal	State Natural Gas	State Other Minerals
2008-09 Actual	$343.4 Million	$ 68.6 Million	$ 8.3 Million
2009-10 Actual	$367.5 Million	$ 50.1 Million	$ 7.6 Million
2010-11 Actual	$412.1 Million	$ 45.8 Million	$ 7.5 Million
2011-12 Actual	$420.8 Million	$ 60.8 Million	$10.1 Million
2012-13 Actual	$351.0 Million	$ 68.4 Million	$14.4 Million
2013-14 Actual	$320.2 Million	$160.0 Million	$31.4 Million
2014-15 Actual	$276.7 Million	$123.9 Million	$36.5 Million
2015-16 Actual	$190.9 Million	$ 47.4 Million	$21.8 Million
2016-17 Actual	$210.5 Million	$ 99.9 Million	$33.0 Million
2017-18 Estimate	$215.3 Million	$137.1 Million	$31.7 Million
2018-19 Estimate	$189.9 Million	$151.4 Million	$41.0 Million
2019-20 Estimate	$188.5 Million	$174.6 Million	$43.0 Million
2020-21 Estimate	$187.2 Million	$187.9 Million	$47.6 Million
2021-22 Estimate	$183.3 Million	$205.3 Million	$49.2 Million
2022-23 Estimate	$180.6 Million	$229.1 Million	$50.0 Million

Due to often unanticipated changes in the dynamic natural gas industry, the six-year forecast for natural gas severance tax collections is subject to significant revision over time.

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