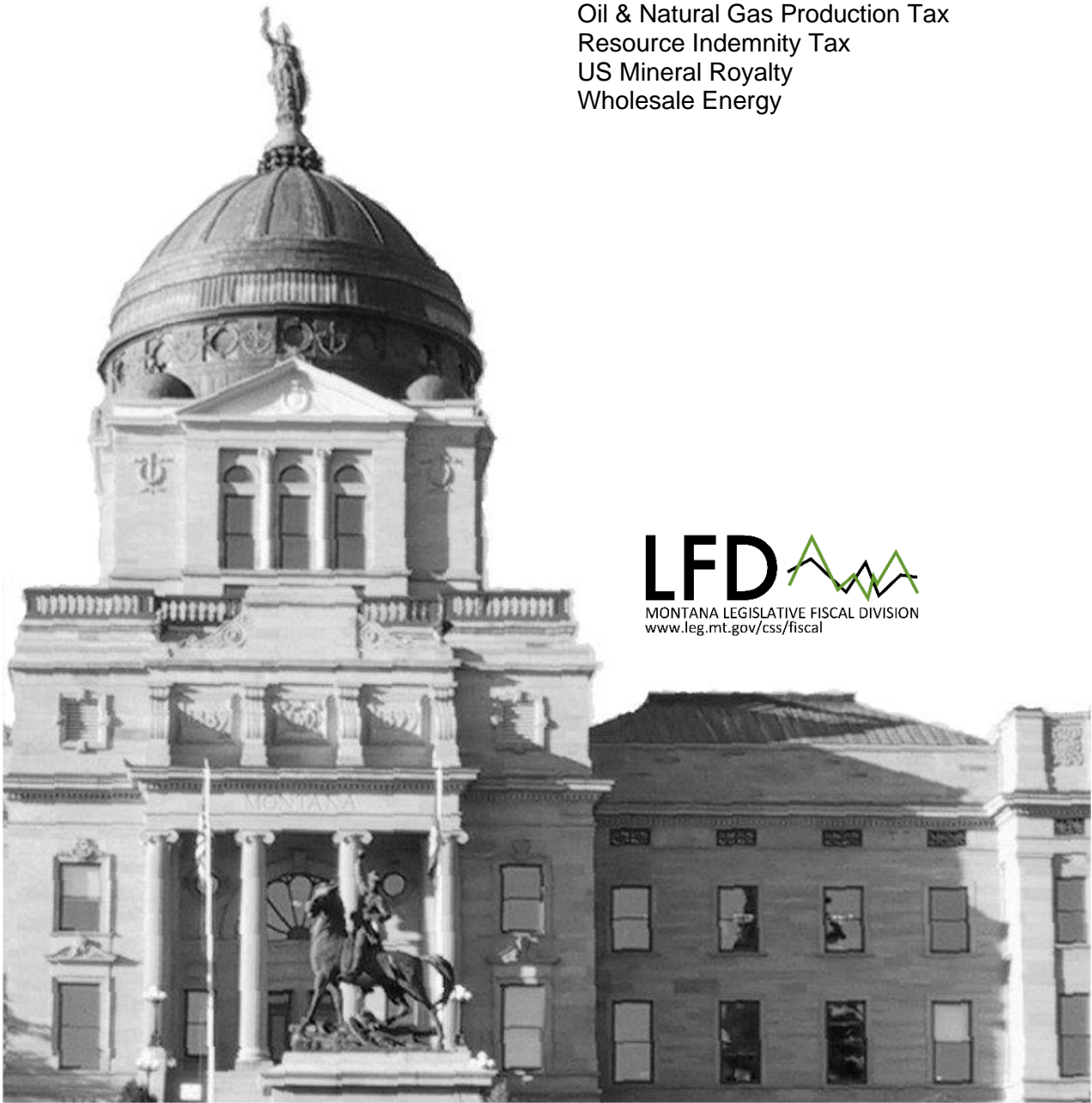


NATURAL RESOURCE TAXES

Coal Severance Tax
Electrical Energy Tax
Federal Forest Receipts
Metalliferous Mines Tax
Oil & Natural Gas Production Tax
Resource Indemnity Tax
US Mineral Royalty
Wholesale Energy



LFD 
MONTANA LEGISLATIVE FISCAL DIVISION
www.leg.mt.gov/css/fiscal

Coal Severance Tax

Revenue Description

For large producers, the coal severance tax is imposed on all coal production, except on tribal reservations, in excess of 20,000 tons per company per calendar year. Producers of 50,000 tons or less in any calendar year are exempt from the tax.

Statutory Reference

Tax Rate – [15-35-103, MCA](#)

Tax Distribution – [Montana Constitution, Article IX, Section 5](#); [15-35-108, MCA](#); [17-5-703, MCA](#)

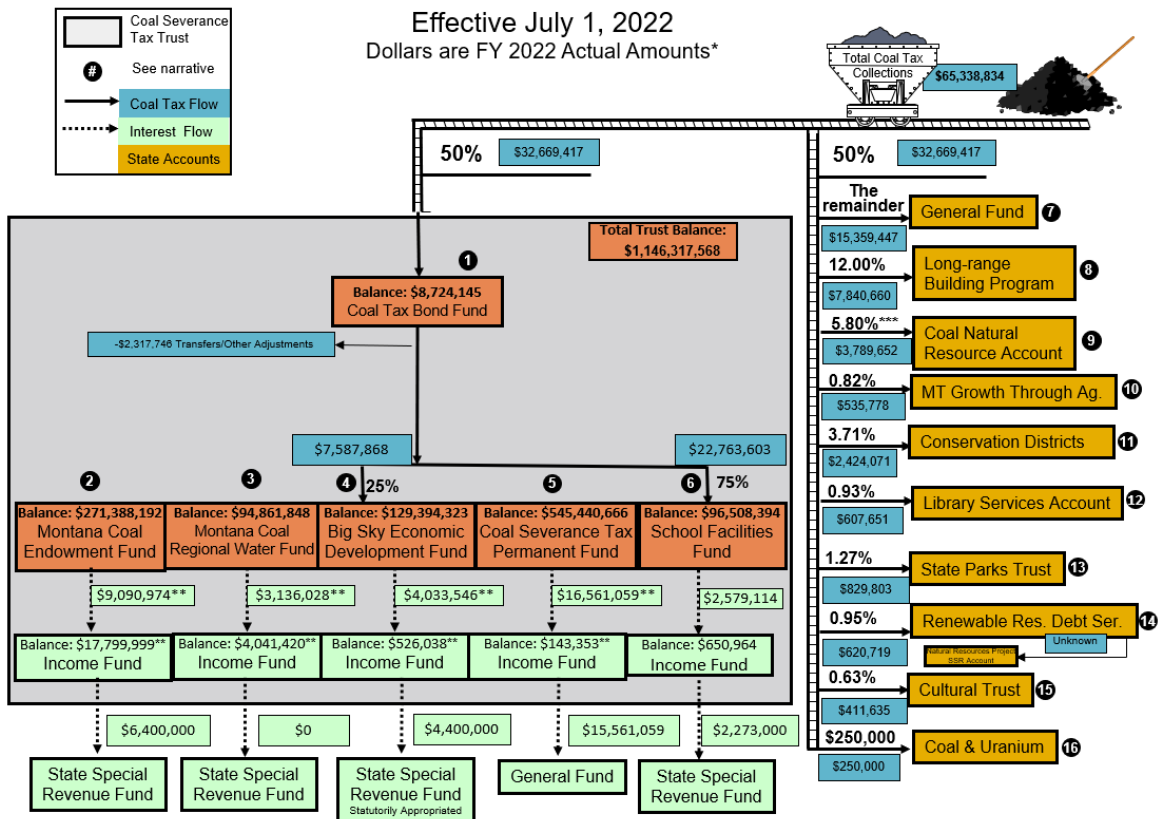
Date Due – Thirty days following the close of the quarter ([15-35-104, MCA](#))

Applicable Tax Rates

- 10% on the value of surfaced mined coal with a heating quality < 7,000 BTU
- 15% on the value surfaced mined coal with a heating quality ≥ 7,000 BTU
- 3% on the value underground mined coal with a heating quality < 7,000 BTU
- 4% on the value underground mined coal with a heating quality ≥ 7,000 BTU
- 3.75% on the value of auger mined coal with a heating quality < 7,000 BTU
- 5% on the value of auger mined coal with a heating quality ≥ 7,000 BTU

Collection Frequency: Quarterly

Distribution



Natural Resource Taxes

Coal Severance Tax

As directed by [Article IX, Section 5](#) of the Montana Constitution, the coal severance tax trust fund receives 50% of total coal severance tax collections. The money flows through sub-trust funds within the trust. These sub-trusts are:

① Coal Tax Bond Fund ([Title 17, Chapter 5, Part 7](#)) – The legislature authorizes the sale of coal severance tax bonds to finance renewable resource projects ([Title 85, Chapter 1, Part 6](#)) and local government infrastructure projects ([Title 90, Chapter 6, Part 7](#)). A maximum of \$250 million in bonds is authorized as loans for renewable resource projects ([17-5-719, MCA](#)) to provide:

- a healthy economy;
- alleviation of social and economic impacts created by coal development; and
- a clean and healthful environment

The total amount of outstanding principal of renewable resource bonds at any time cannot exceed \$30 million ([85-1-624, MCA](#)). An amount equal to the following year's principal and interest payments is maintained in the fund. Money in the fund is pledged to pay the debt service on the bonds if interest and principal payments by the loan recipients are insufficient to fully pay the debt service. Bonds are authorized, projects approved, loan rates established, and bond proceeds are appropriated by the legislature to the Department of Natural Resources and Conservation (DNRC) in HB 8.

② Montana Coal Endowment Fund ([Title 90, Chapter 6, Part 7](#)) – In June 1992, the voters approved a legislative referendum establishing the treasure state endowment program. Initially funded with \$10 million from the permanent fund, the fund received 75% (37.5% of the total) of the remaining coal severance tax revenue after deposits (if any) to the coal tax bond fund and the school bond contingency loan fund (HB 44 in the 2007 session eliminated this fund) through the 2003 biennium. From then through FY 2016, the fund received 50% (25% of the total). Projects are approved and interest earnings from the fund are appropriated to the Department of Commerce by the legislature in House Bill 11 as grants for local government infrastructure projects. The deposit of coal severance tax revenue into this fund terminated at the end of FY 2016. In the 2021 Legislative Session, [SB 258](#) changed the name of this fund to the Montana Coal Endowment Fund.

③ Montana Coal Endowment Regional Water System Fund – The treasure state endowment program was established in [SB 220 \(1999 Session\)](#) to fund regional water system projects. Projects are restricted to drinking water systems that provide water for domestic, industrial, and stock water use for communities and rural residences that lie in specific north central and northeastern geographic areas. Projects are approved and interest earnings from the fund are appropriated to the Department of Commerce by the legislature in HB 11 as grants for local government infrastructure projects. Until the end of FY 2016, the fund received 25% (12.5% of the total) of the remaining coal severance tax revenue after deposits in the coal tax bond fund. The deposit of coal severance tax revenue into this fund terminated at the end of FY 2016, and the fund terminates at the end of FY 2031. In the 2021 Legislative Session, [SB 258](#) changed the name of this fund to the Montana Coal Endowment Regional Water Fund.

④ Big Sky Economic Development Fund – The big sky economic development program was established by [HB 249 \(2005 Session\)](#) to fund qualified economic development projects. The fund receives 25% (12.5% of the total) of the remaining coal severance tax revenue after deposits in the coal tax bond fund. The deposit of coal severance tax revenue to this fund terminates the end of FY 2025. Grants and loans are available to local governments for economic development projects and to certified regional development corporations for the purposes of:

- 1) creating good-paying jobs for Montana residents;
- 2) promoting long-term, stable economic growth;
- 3) encouraging local economic development organizations; and
- 4) retaining or expanding existing businesses

Interest earnings are deposited to a state special revenue fund and are statutorily appropriated to the Department of Commerce to pay administrative expenses with the remainder for:

- 75% to local governments to be used for job creation; and

Natural Resource Taxes

Coal Severance Tax

- 25% to certified regional development corporations and economic development organizations

⑤ Permanent Fund – Prior to the establishment of the previous four funds, all the coal severance tax revenue distributed to the trust fund was deposited to the permanent fund. From FY 2006 to FY 2016 no coal severance tax revenue was deposited to the fund. In FY 2017, the permanent fund received 75% of the remaining coal severance tax revenue after deposits in the coal tax bond fund. Interest earnings from the fund, audit revenue, and interest and penalties are deposited to the general fund. After a \$1.275 million general fund transfer to the research and commercialization account created in [90-3-1002](#), the remaining interest income from the permanent fund deposited into the general fund is statutorily appropriated as follows:

- \$65,000 to the cooperative development center;
- \$625,000 for the growth through agriculture program provided for in [Title 90, chapter 9](#);
- to the Department of Commerce for specific projects:
 - \$125,000 for a small business development center;
 - \$50,000 for a small business innovative research program;
 - \$425,000 for certified regional development corporations;
 - \$200,000 for the Montana manufacturing extension center at MSU-Bozeman; and
 - \$300,000 for export trade enhancement
- After the above payments, the remainder is deposited into the state general fund.

⑥ School Facilities Fund –The school facilities fund was created with the passage of [SB 260 \(2017 Session\)](#). Interest from the fund may be used only for school facility projects authorized by the legislature. Beginning in FY 2018, the school facilities fund will receive 75% of the coal tax allocation to the coal trust fund.

Coal Severance Tax Related Funds:

The other 50% of the coal severance tax revenue is distributed to the following eight funds outside of the coal severance tax trust fund ([15-35-108, MCA](#)):

⑦ General Fund (the remainder after all other allocations) –After allocations are made to the coal trust and state special funds, the remaining coal severance tax collections are distributed to the state general fund.

⑧ Long-range Building Program Account (12.00%) – Coal severance tax revenue in this account can be used for long-range building projects or for general obligation bond debt service. The legislature appropriates the money in HB 5 to finance building projects at universities, vocational education institutions, state buildings and state institutions. Debt service payments are statutorily appropriated and are currently servicing debt for capitol restoration, the UM pharmacy and psychology, and chemistry buildings, MSU central heating plant and underground utilities, Montana state prison expansion, and regional correctional facilities.

⑨ Coal Natural Resource Account (2.90% increased to 5.8% in FY 2016 and FY 2017) – Created in [HB 758 \(2005 Session\)](#) and amended by [SB 23 \(2009 Session\)](#), the account receives a portion of the coal severance tax revenue. Money in the account is appropriated to the coal board in HB 2 for local impact grants and administrative costs. Due to [SB 100 \(2009 Session\)](#), the coal tax allocation was doubled to 5.80% beginning FY 2010. After September 2013, the allocation decreased to 2.9%. The allocation was increased to 5.8% for FY 2016 and FY 2017, and again for FY 2018 and FY 2019 with the passage of [HB 209 \(2017 Session\)](#).

⑩ Conservation Districts Fund (3.71%) – The money is distributed to the conservation districts program within the Department of Natural Resources and Conservation on the basis of need.

Natural Resource Taxes

Coal Severance Tax

- ⑪ Basic Library Services Fund (0.93%) – The money is distributed by the commission to public library federations.
- ⑫ Growth through Agriculture Fund (0.82%) – Money is granted or loaned by the Agriculture Development Council to businesses for agricultural development projects that stimulate agriculture.
- ⑬ State Parks Trust (1.27%) – The distribution to this trust is for the purpose of parks acquisition or management. Interest earnings from the trust is appropriated to the Department of Fish, Wildlife, and Parks (FWP) by the legislature in HB 2 and HB 5 for the acquisition, development, operation, and maintenance of state parks, recreational areas, public camping grounds, historic sites, and monuments.
- ⑭ Renewable Resource Debt Service Fund (0.95%) – Money in this fund is used to service debt on coal severance tax bonds used to finance renewable resource projects. This is in addition to any coal tax paid from the Coal Tax Bond Fund (① above). Bonds are authorized, projects approved, loan rates established, and bond proceeds are appropriated by the legislature to DNRC in HB 8.
- ⑮ Cultural Trust (0.63%) – The distribution to this trust is for the purpose of protecting works of art in the capitol and for other cultural and aesthetic projects. Interest earnings from the trust are appropriated to the Montana Arts Council by the legislature in HB 9 for these purposes.
- ⑯ Coal and Uranium Mine Permitting and Reclamation Program (\$250,000) – Enacted by [HB 688 \(2007 Session\)](#), coal severance tax revenue is deposited to the state special revenue account and appropriated in HB 2 to the Department of Environmental Quality (DEQ) to administer and enforce coal and uranium mine reclamation ([82-4-244, MCA](#)).

Forecast Risks

- Energy prices
- Production and shipping costs
- Type of coal (BTU)
- Length of company contracts
- Decreased demand domestically

Revenue Estimate Methodology

Data

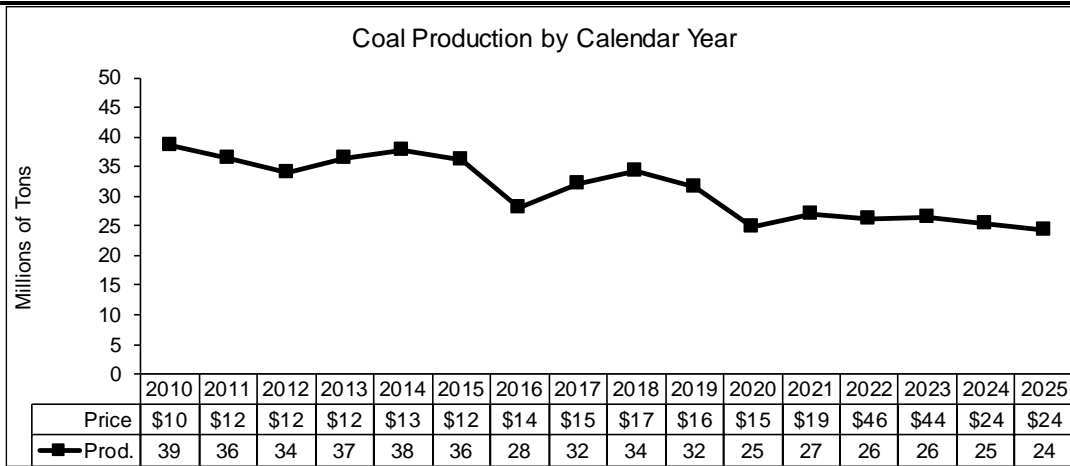
The estimate for this revenue source is based on collection data from SABHRS, historical price and production data from DOR, and anticipated production from surveys of major coal companies.

Analysis

The taxable value of coal is determined in a three-step process:

1. The future coal production for each company, based upon most recent years' trends.
2. To determine the future price for each company's coal, the company's average contract sales price for the last year is increased by an average price. The average contract sales price for all companies is shown in the figure below.
3. The estimated production and price for each company are multiplied together and the product for all companies summed to obtain the total taxable value.

The calendar year taxable value is multiplied by the applicable tax rate to determine total coal severance tax revenue and converted to fiscal year basis.

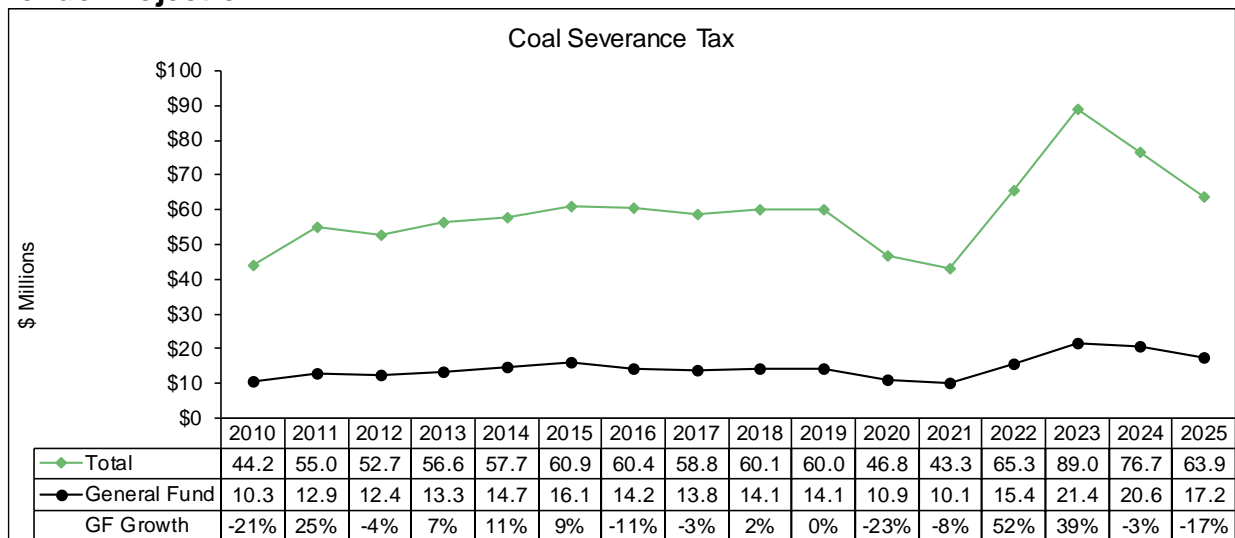


Revenue Estimate Assumptions

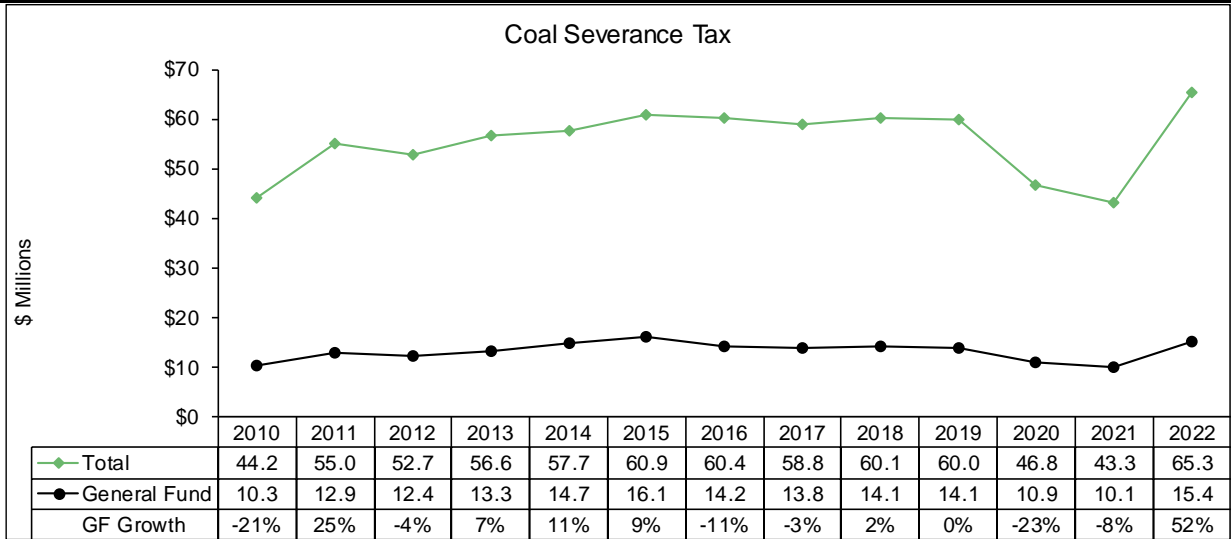
This section contains the assumptions used to generate the LFD revenue recommendation.

FY	Total Tax \$ Millions	GF Tax \$ Millions	Tons (CY) Millions	CSP (CY) \$/Ton
A 2012	\$52.743	\$12.350	33.870	\$12.150
A 2013	56.574	13.265	36.540	12.30
A 2014	57.676	14.745	37.810	12.56
A 2015	60.891	16.063	36.075	12.38
A 2016	60.359	14.236	28.089	14.02
A 2017	58.808	13.799	31.987	14.82
A 2018	60.097	14.107	34.311	16.51
A 2019	60.028	14.091	31.543	16.29
A 2020	46.754	10.920	24.728	15.39
A 2021	43.256	10.084	26.875	18.96
A 2022	65.339	15.359	26.301	46.49
F 2023	88.961	21.374	26.405	43.89
F 2024	76.664	20.644	25.241	24.00
F 2025	63.876	17.218	24.166	24.28
F 2026	61.829	16.670	23.160	24.56
F 2027	59.846	16.138	22.169	24.85

Revenue Projection



Revenue History



Electrical Energy Tax

Revenue Description

The electrical energy license tax is imposed on each person or organization engaged in generating, manufacturing, or producing electrical energy in Montana. This tax is in addition to the wholesale energy transaction tax.

Statutory Reference

Tax Rate – [15-51-101, MCA](#)

Tax Distribution – [17-2-124\(2\), MCA](#); [15-51-103, MCA](#)

Date Due – Thirty days after the end of the calendar quarter ([15-51-101, MCA](#); [15-51-102, MCA](#))

Applicable Tax Rates

A tax of \$0.0002 per kilowatt-hour is levied against all electrical energy produced within the state. A deduction is allowed for energy used by the plant for the production of the energy.

Collection Frequency: Quarterly

Distribution: All proceeds are deposited into the general fund.

Forecast Risks

- Generation variability

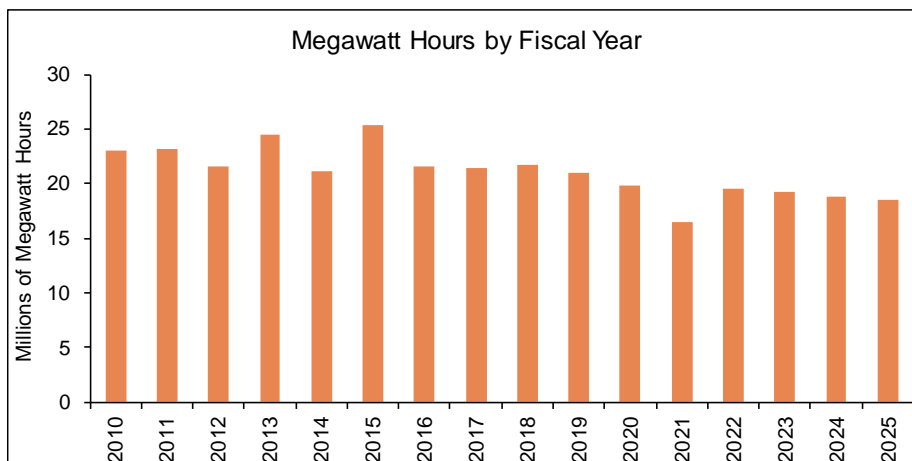
Revenue Estimate Methodology

Data

Data from quarterly reports produced by DOR provide a history of kilowatt hours produced for each individual company.

Analysis

Historic data of kilowatt hours are used to trend forecast future kilowatt hours by year. Taxable kilowatt hours are then multiplied by the tax rate to produce total revenue from this source.



Revenue Estimate Assumptions

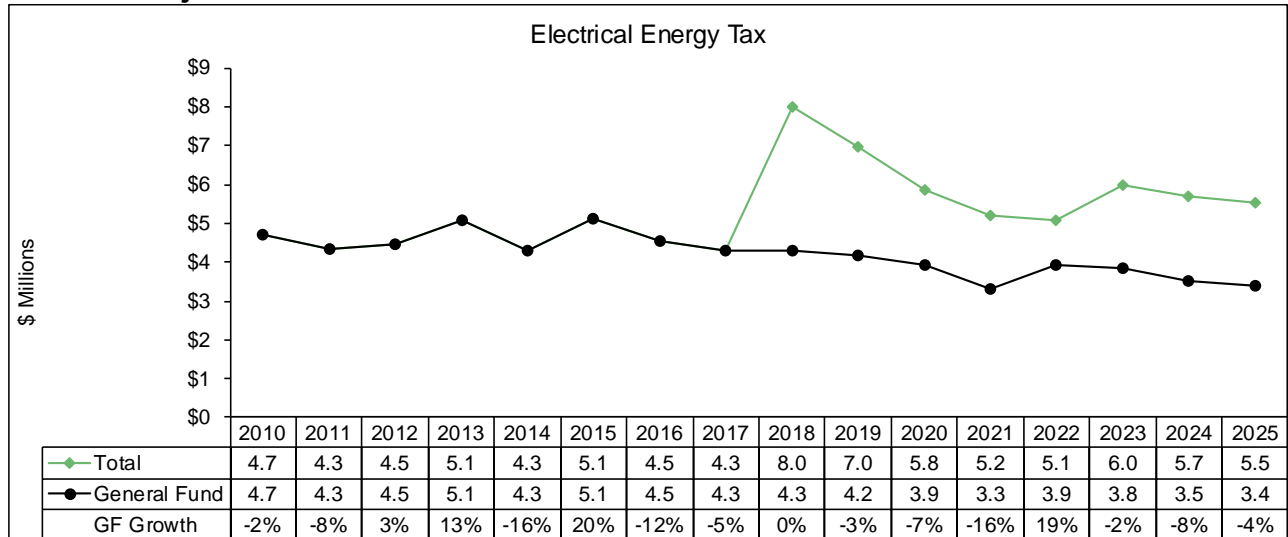
This section contains the assumptions used to generate the LFD revenue estimate recommendation.

Natural Resource Taxes

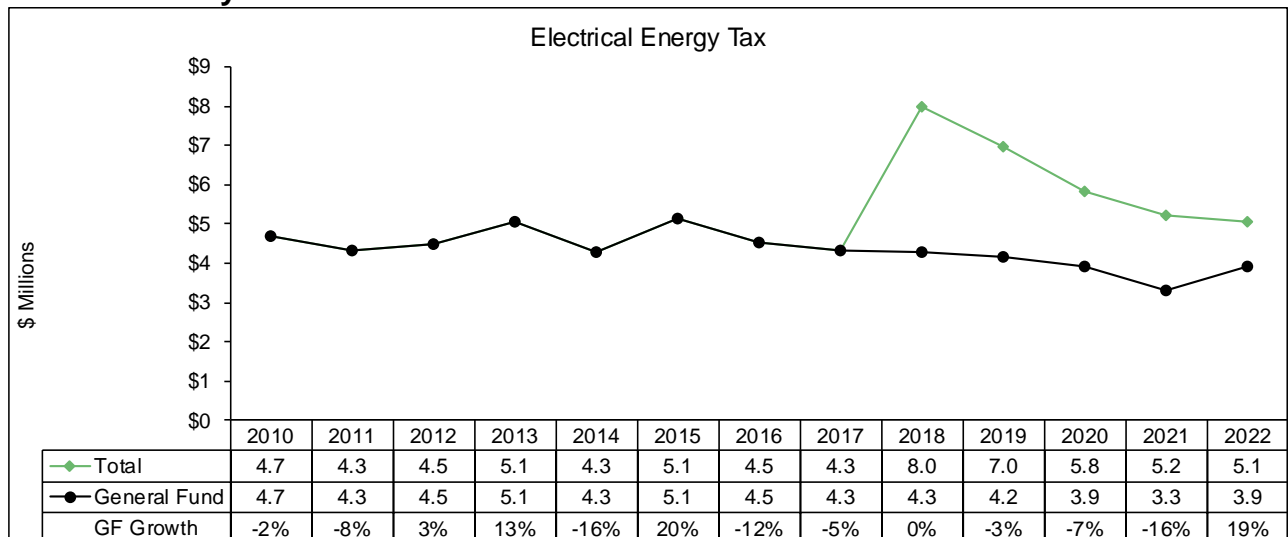
Electrical Energy Tax

FY	Total Tax \$ Millions	GF Tax \$ Millions	KWH Millions
A 2012	\$4.481	\$4.481	21,624
A 2013	5.067	5.067	24,519
A 2014	4.280	4.280	21,139
A 2015	5.133	5.133	25,358
A 2016	4.536	4.536	21,541
A 2017	4.314	4.314	21,368
A 2018	7.997	4.302	21,667
A 2019	6.961	4.185	20,997
A 2020	5.847	3.910	19,863
A 2021	5.223	3.298	16,492
A 2022	5.079	3.930	19,473
F 2023	5.990	3.841	19,206
F 2024	5.685	3.536	18,758
F 2025	5.532	3.383	18,482
F 2026	5.540	3.391	18,980
F 2027	5.594	3.445	18,857

Revenue Projection



Revenue History



Federal Forest Receipts

Revenue Description

Federal forest receipts are payments from the federal government in lieu of revenues from the sale of forest products of federal land. The federal government authorizes logging operations on forest lands located within the borders of Montana. The sale of timber generates revenue that the federal government shares with the state in the following year. In similar fashion to FY 2017, FY 2025 has a significant drop in revenue as [Secure Rural Schools](#) was not extended at the federal level. Beginning in FY 2025 the payments will once again to the formula described below.

Statutory Reference

Tax Distribution – [17-3-211, MCA](#); [17-3-212, MCA](#)

Date Due – The state treasurer distributes the funds within thirty days of receiving full payment.

Applicable Tax Rates: N/A

Collection Frequency: Twice annually (usually October and December)

Distribution

The county treasurer apportions federal forest receipts as follows:

- 66.7% to the road fund of the county
- 33.3% to the following county wide accounts, based on the mill ratios of each to total mills in the current year:
 - The county equalization accounts (55 mills)
 - The county transportation account
 - The county retirement accounts

This revenue source represents one component used to calculate total non-levy property tax revenue; this is the 55 mills portion.

Forecast Risks

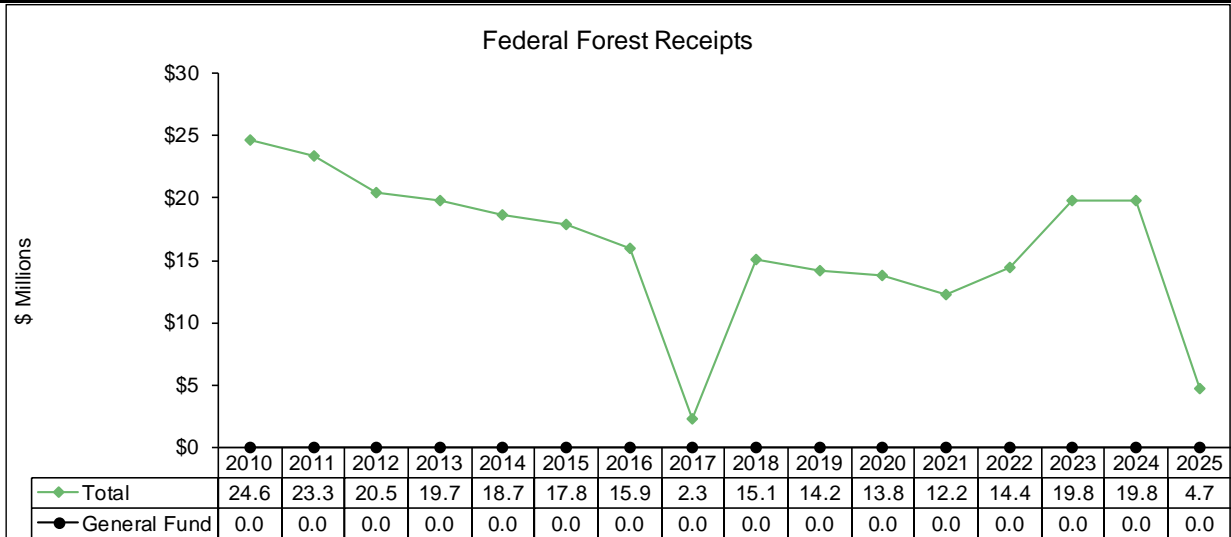
- Timber harvests
- Federal policy on reauthorizing [Secure Rural Schools](#)

Revenue Estimate Methodology

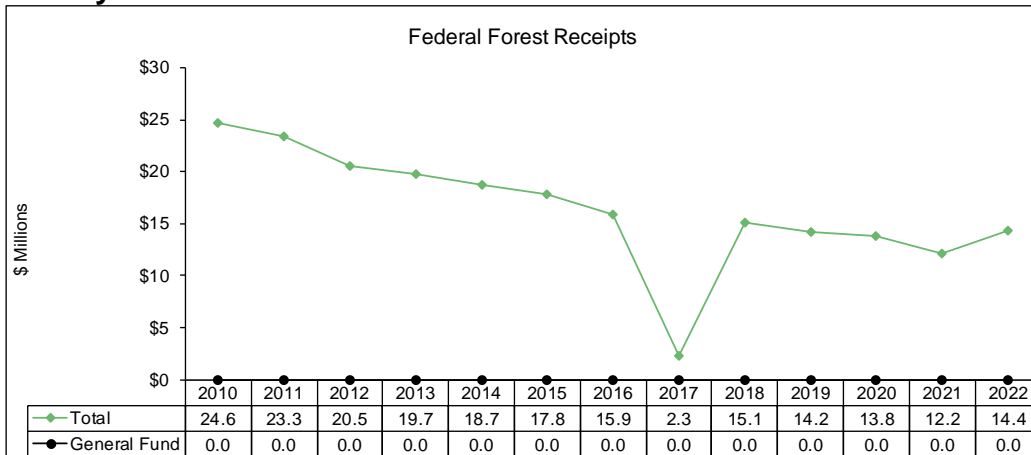
Counties receives 25% of the seven-year rolling average value of timber sold, lagged due to timing of production and payments. The estimate is based on average historical collections. The average state 55 mill share is applied to this and added to non-levy property revenue.

Revenue Estimate Assumptions

Revenue Projection



Revenue History



Metalliferous Mines Tax

Revenue Description

The metalliferous mines license tax is imposed on the production of metals, gems or stones in the state. The tax rate is applied to the gross value of the product, which is defined as the market value of the commodity multiplied by the quantity produced. The first \$250,000 of value is exempt from taxation. A company taxed at both rates can claim both exemptions.

Statutory Reference

Tax Rate – [15-37-103, MCA](#)

Tax Distribution – [15-37-117, MCA](#); [17-2-124\(2\), MCA](#)

Date Due – August 15th for the period January through June, March 31st for the period July through December ([15-37-105, MCA](#))

Applicable Tax Rates

There are two tax rates which depend on the extraction type:

- 1.60% for ore, bullion or matte that is sent to a refinery
- 1.81% for concentrate sent to a smelter, mill or reduction work

The appropriate tax rate is applied to the gross value less allowable deductions and the \$250,000 exemption.

Collection Frequency: Biannually

Distribution

Nearly half of metal mine tax is allocated to the general fund, with impacted counties receiving most of the remaining amount:

- 47% to the general fund
- 8.5% to the hard-rock mining reclamation debt service fund
- 7% to the natural resources operations state special revenue account
- 2.5% to the hard rock mining impact trust account
- 35% impacted counties

Forecast Risks

- Commodity prices
- Changes to production outlook
- Environmental regulations

Revenue Estimate Methodology

Data

The estimate for this source is based on historical prices from the U.S. Geological Survey, historical revenue collections from SABHRS, and historical price and production data from DOR. Forecast prices are based on World Bank's Commodity Market Outlook.

Analysis

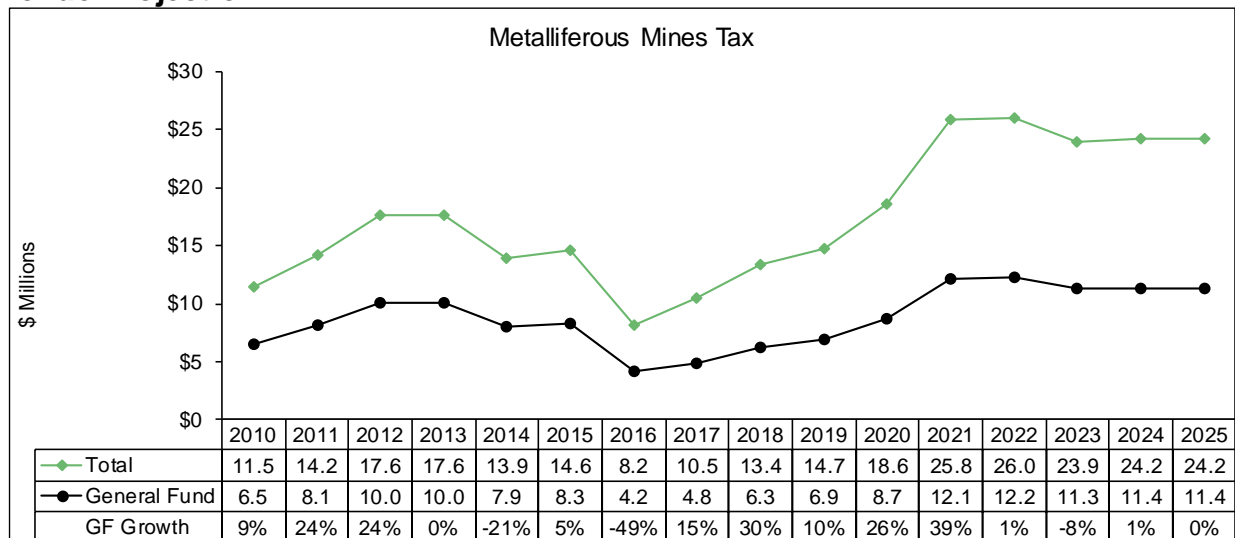
Production for each metal type is forecast as a five-year rolling average. Production multiplied by price results in the total gross value for each metal type. Total taxable value is obtained by reducing the total gross value by a time trended value of refining and other costs. The calendar year estimate is obtained by multiplying the total taxable value by the effective tax rate. Since a company's taxable value could be subject to two tax rates—1.81% for concentrates shipped to a smelter, mill or reduction work and 1.6% for dore, bullion, or matte that is shipped to a refinery—an effective tax rate is used to capture both these rates. Calendar year estimates are converted to fiscal year estimates by an equal allocation.

Revenue Estimate Assumptions

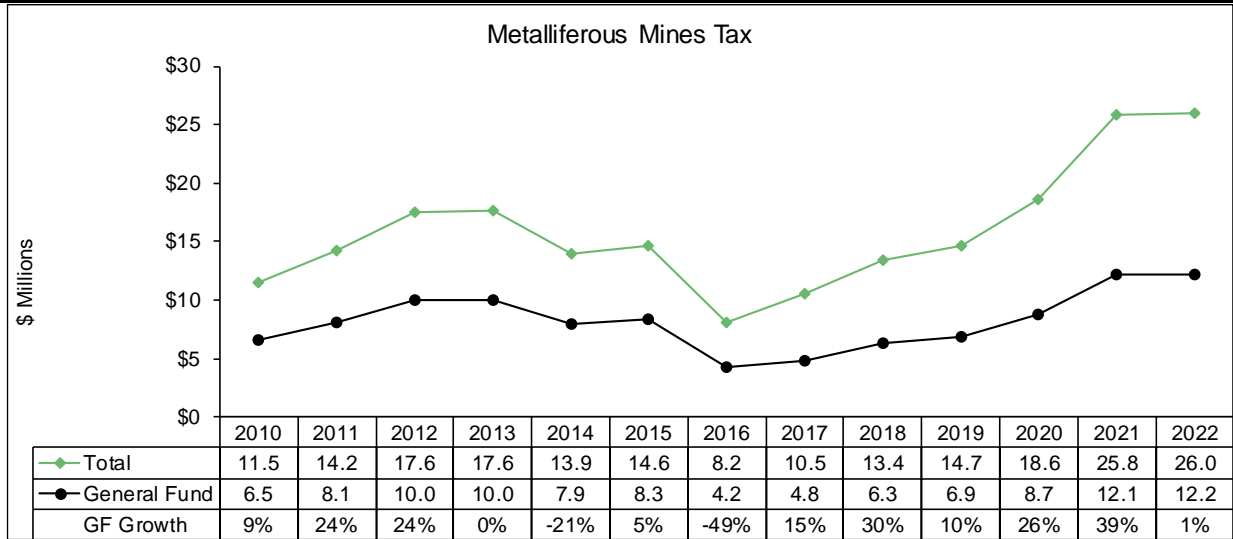
This section contains the assumptions used to generate the LFD revenue estimate recommendation.

FY	Total Tax \$ Millions	GF Tax \$ Millions	Net Value CY \$ Millions	Effective CY Rate
A 2012	\$17.562	\$10.010	\$1,114.512	1.8%
A 2013	17.630	10.049	871.153	1.6%
A 2014	13.943	7.948	899.995	1.9%
A 2015	14.597	8.320	660.993	1.3%
A 2016	8.164	4.221	609.557	1.5%
A 2017	10.516	4.839	755.910	1.6%
A 2018	13.386	6.291	880.629	1.5%
A 2019	14.695	6.907	1,073.070	1.5%
A 2020	18.562	8.724	1,374.152	1.8%
A 2021	25.821	12.136	1,481.300	1.8%
A 2022	25.978	12.210	1,452.570	1.6%
F 2023	23.945	11.254	1,457.522	1.6%
F 2024	24.177	11.363	1,472.430	1.6%
F 2025	24.190	11.369	1,468.409	1.6%
F 2026	24.526	11.527	1,474.068	1.6%
F 2027	24.899	11.702	1,487.249	1.6%

Revenue Projection



Revenue History



Oil & Natural Gas Production Tax

Revenue Description

The oil and natural gas production tax is imposed on the production of oil and natural gas in the state. Gross taxable value of oil and natural gas production is based on the type of well and type of production. A portion of the revenue from the tax may be returned to Indian tribes per agreements between DOR and the tribes.

Statutory Reference

Tax Rate – [15-36-304, MCA](#); Privilege & license tax – [82-11-131, MCA](#); Administrative Rules [36.72.1242](#)

Tax Distribution – [15-36-331\(4\), MCA](#); [15-36-332\(2&3\), MCA](#)

Date Due – within 60 days after the end of the calendar quarter ([15-36-311\(1\), MCA](#))

Applicable Tax Rates

The oil and natural gas production tax has numerous tax rates depending on several factors. The following table shows tax rate percentages for each type of pre- and post-1999 oil, excluding the Privilege & License (P & L) tax and the local impact tax. The P & L and local impact taxes account for less than 0.3% and are shown on the distribution diagram.

Oil Tax Rates	
<u>Working Interest</u>	
Primary recovery production	
First 12 months of qualifying production	0.5%
After 12 months for pre-1999 wells	12.5%
After 12 months for post-1999 wells	9.0%
Stripper oil production (>3 and < 15 barrels/day if oil<\$30)	
1 through 10 barrels a day production	5.5%
>10 through 14 barrels a day production	9.0%
Stripper oil production (>3 and < 15 barrels/day if oil>=\$30)	Primary Recovery Rates
Stripper wells (3 barrels or less/day)	
Stripper well exemption production (if oil <\$38)	0.5%
Stripper well bonus production (if oil >=\$38)	6.0%
Horizontally completed well production	
First 18 months of qualifying production	0.5%
After 18 months for pre-1999 wells	12.5%
After 18 months for post-1999 wells	9.0%
Incremental production (if oil <\$30/barrel)	
New or expanded secondary recovery production	8.5%
New or expanded tertiary production	5.8%
Incremental production (if oil >=\$30/barrel)	
Pre-1999 wells	12.5%
Post-1999 wells	9.0%
Horizontally recompleted well	
First 18 months	5.5%
After 18 months for pre-1999 wells	12.5%
After 18 months for post-1999 wells	9.0%
<u>Nonworking Interest</u>	14.8%
Board of Oil & Gas	0.3%

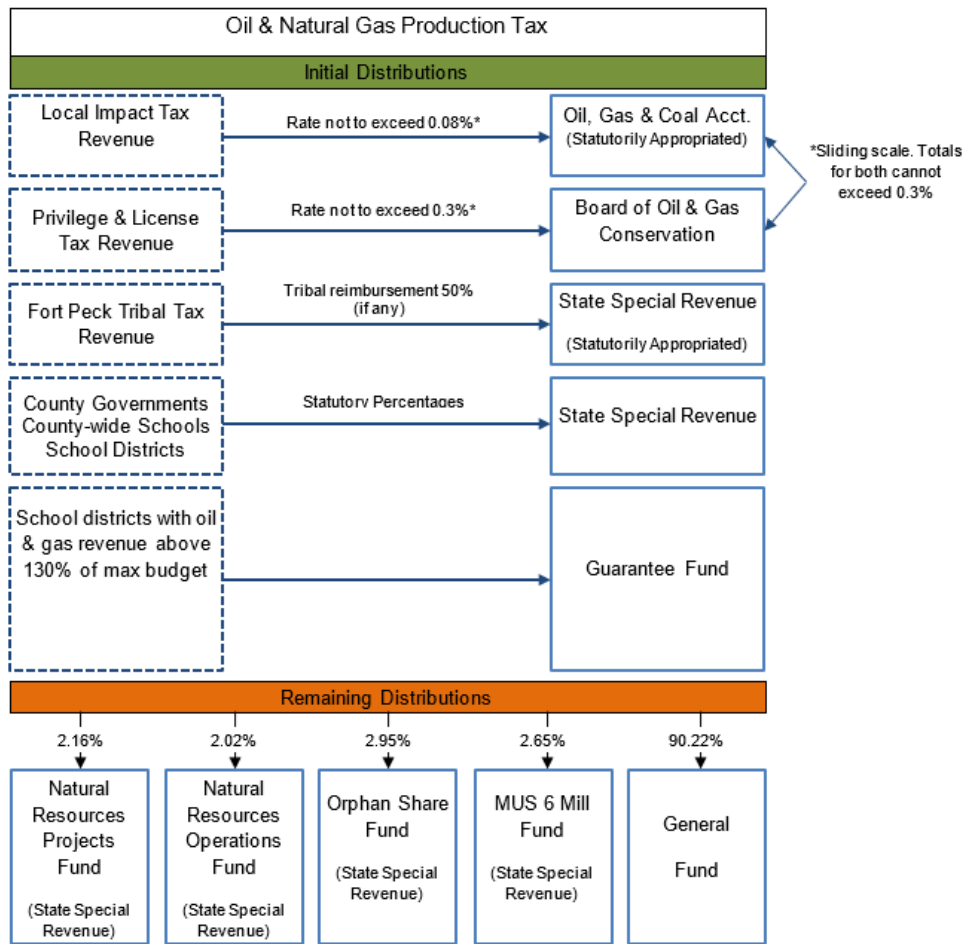
Natural Gas Tax Rates	
<u>Working Interest</u>	
Qualified production	
First 12 months	0.5%
After 12 months for pre-1999 wells	14.8%
After 12 months for post-1999 wells	9.0%
Stripper natural gas pre-1999 wells	11.0%
Horizontally completed well production	
First 18 months of qualifying production	0.5%
After 18 months	9.0%
<u>Nonworking Interest</u>	14.8%
Board of Oil & Gas	0.3%

Collection Frequency: Quarterly

Distribution

After the oil and natural gas production taxes have been collected, the revenue is distributed based on the amounts collected from the P & L and local impact taxes. The P & L tax is distributed to the Board of Oil and Gas Conservation. The amounts from the Local Impact tax are distributed to the oil and gas natural resource state special revenue account. The amounts received by the Board and the oil and gas natural resource account vary based on a sliding tax scale based on the P & L tax set by the Board. Counties producing oil and natural gas receive the next share of total revenue with each county having its own statutory distribution percentage of total revenue, including the revenue generated by the P & L and Local Impact taxes.

A portion of the revenue may be returned to Indian tribes per agreements between the DOR and the tribes. The remainder of the revenue is distributed to other state accounts, shown in the distribution chart below. The distributions of county shares and the amount of oil and natural gas production tax revenue deposited in the oil and gas natural resource account are statutorily appropriated and are based on the statutorily set percentages for each county.



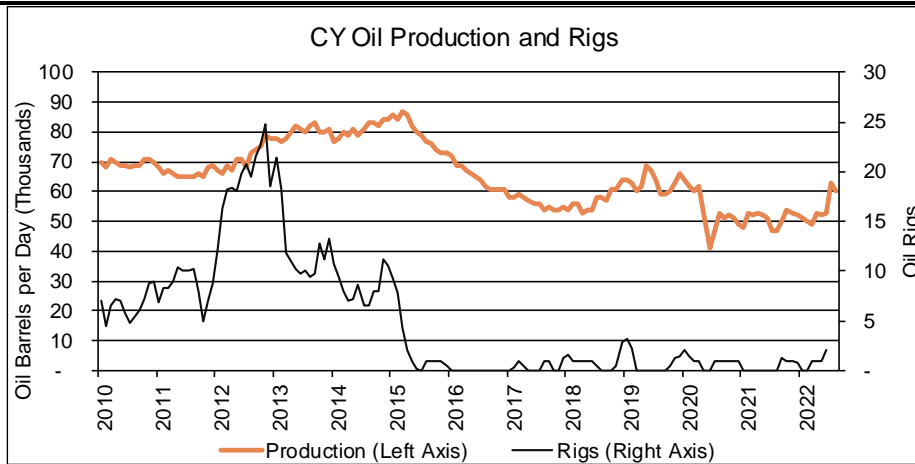
Forecast Risks

- Price
- Production
- New drilling

Revenue Estimate Methodology

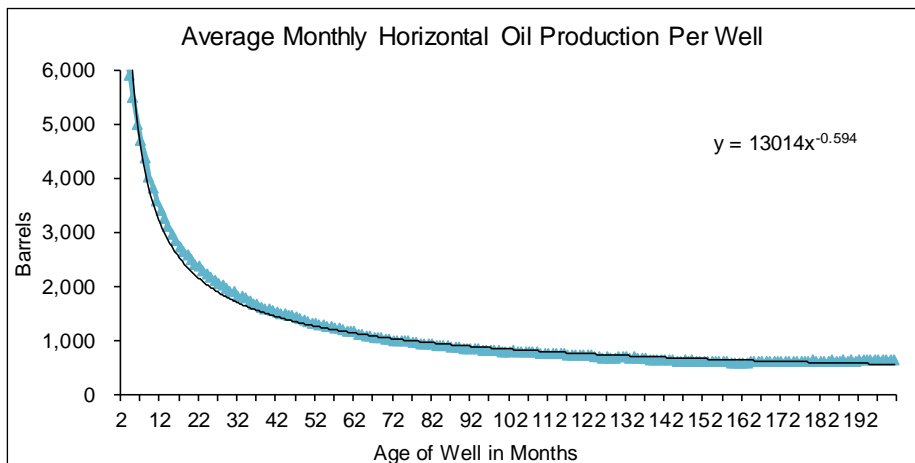
Data

Data from the Board of Oil and Gas Conservation are used extensively to isolate monthly historical production of oil and natural gas by field and by individual well. IHS Markit provides future estimates of West Texas Intermediate oil and national well head natural gas prices. Production, price, value, and revenue collections, by oil type, are provided on a quarterly basis by DOR. Drilling rigs from Baker Hughes along with production numbers from the U.S. Energy Information Administration are shown below.



Analysis

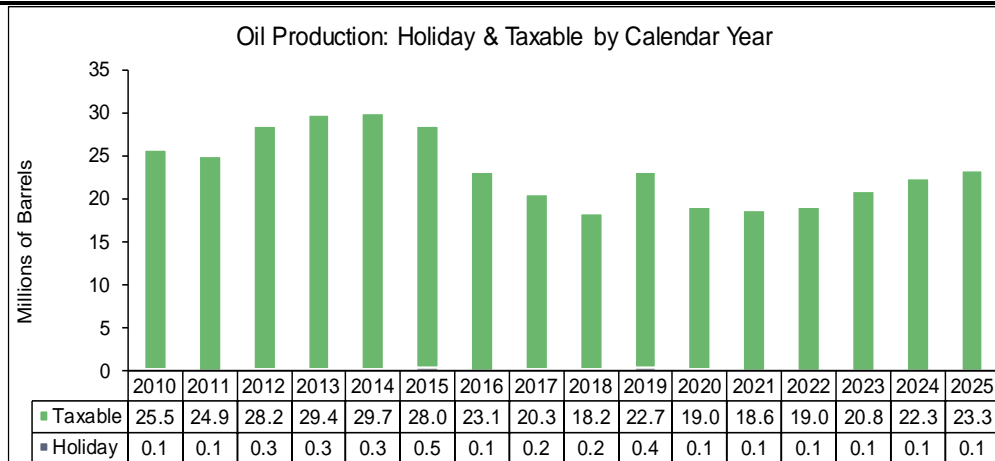
Production is estimated independently for oil and natural gas. The estimate is developed on a quarterly basis with production from horizontal wells separate from all other production. Existing horizontal wells follow a production decline curve unique to the characteristics of those wells. Future production from completed wells can be estimated by developing a normalized production decline curve from the producing wells. In doing so, the difficulty of having different starting time for each well can be eliminated by averaging each well’s production from a common time point. The result is a curve that represents the average production of horizontal wells by month of production.



Production from future wells can be estimated by applying the production curve coefficients to an estimate of future spudded wells. Knowing monthly production from each well and the date it was placed into production is essential for estimating oil tax revenue because tax rates vary based on the length of time a well has been in production. The dynamics in the timing of when wells enter and fall out of the various tax rates and the changes in production at the various stages are complex, and as a result are modeled to create more accurate estimates given future price variability.

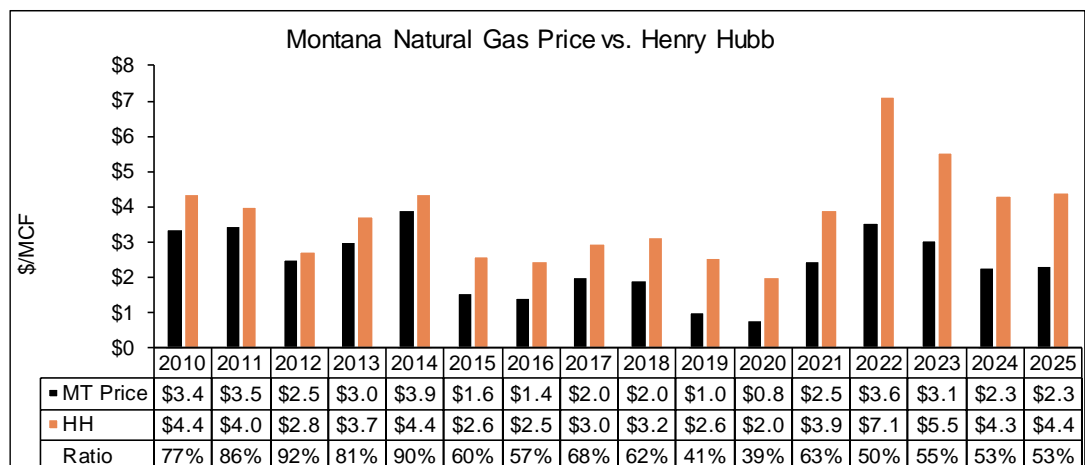
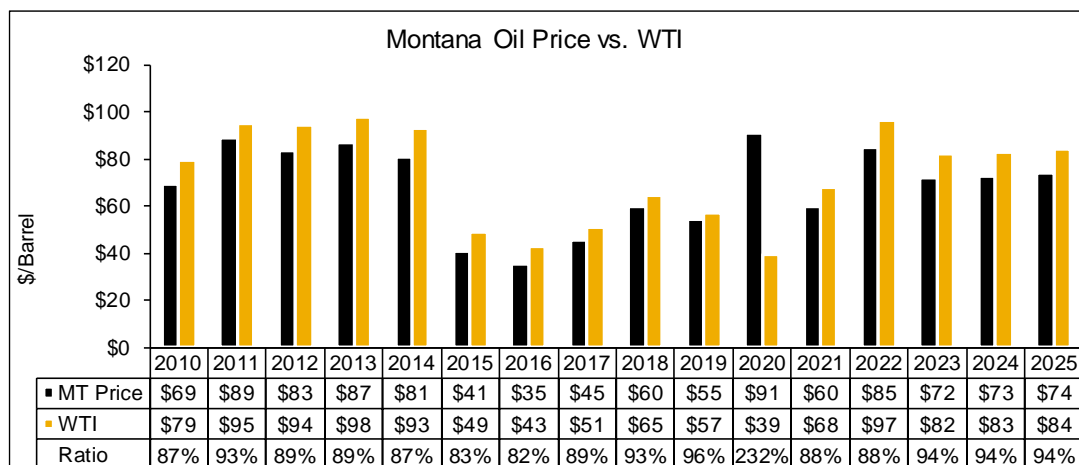
Natural Resource Taxes

Oil & Natural Gas Production Taxes



Production from all other wells is also estimated on an annual basis and by the different taxation types. For each year, the estimate is produced by multiplying the previous year by the ratio of the results of a regression analysis for the current and the previous year. The results for each tax type are then summed by year.

The price for each quarter is estimated by adjusting the IHS Markit West Texas Intermediate oil price estimate or Henry Hub natural gas price estimate by a Montana-specific ratio. The Montana price is lower than the national price primarily due to transportation costs.



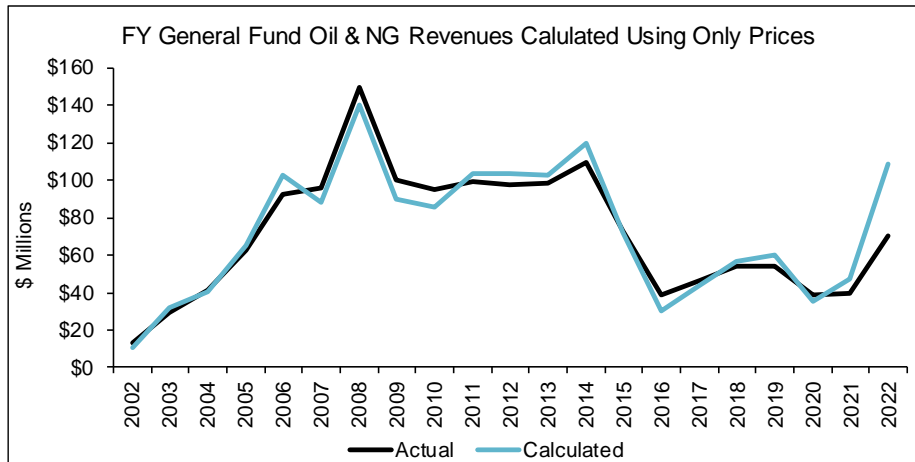
Once production and prices have been estimated, the value can be calculated by the product of the two. The quarterly value of each tax type is then multiplied by the applicable tax rate to obtain the

Natural Resource Taxes

Oil & Natural Gas Production Taxes

estimate. The sum of the revenue from all tax types for each fiscal year determines the oil and natural gas production revenue estimate.

Price—not production—is the larger driver of the overall estimate. Modeling on only WTI oil prices and HH gas prices, predicted revenues are extremely close to actuals, although this relies on already known prices. As prices are never known with such accuracy, the oil and gas model uses historical production data from each well in the state to model forecast production based on an average decline curve. The additional production modeling essentially acts as a buffer against price forecast volatility.



Revenue Estimate Assumptions

This section contains the assumptions used to generate the LFD revenue estimate recommendation.

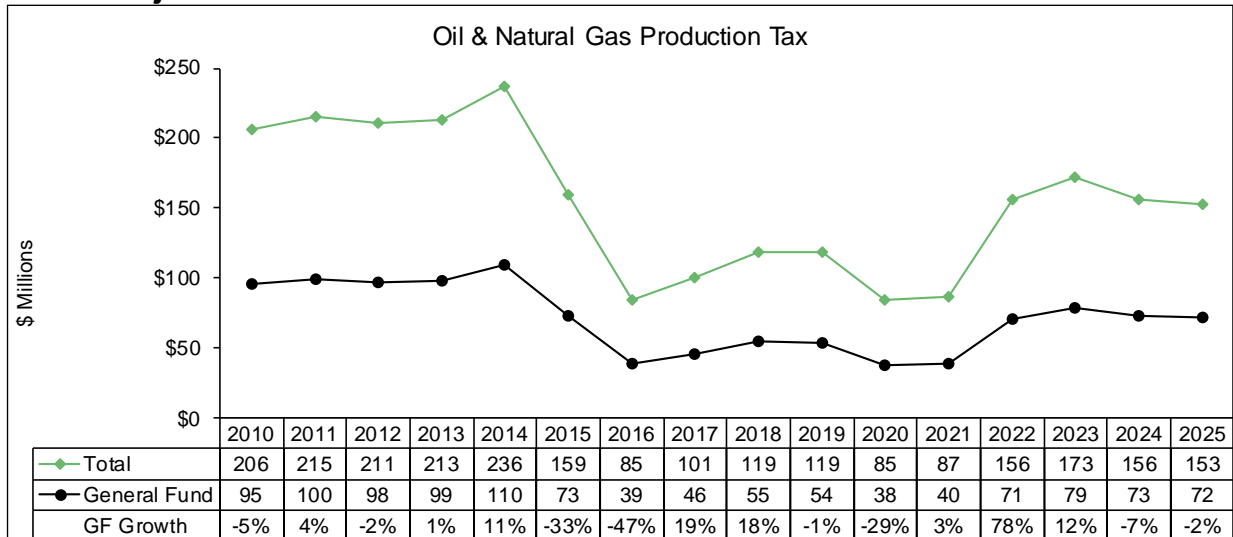
FY	Total Tax \$ Millions	GF Tax \$ Millions	CY WTI Price \$/Barrel	CY Montana Price \$/Barrel	CY WTI / MT Oil Price Ratio	CY Total Production Million Barrels	CY Holiday Production Million Barrels
A 2012	\$210.644	\$97.560	\$94.20	83.45	0.89	28.469	0.272
A 2013	213.23	98.68	97.94	87.22	0.89	29.713	0.269
A 2014	236.50	109.61	93.26	80.67	0.87	29.955	0.299
A 2015	159.11	73.18	48.69	40.60	0.83	28.553	0.508
A 2016	84.97	39.08	43.21	35.47	0.82	23.198	0.121
A 2017	100.77	46.33	50.96	45.34	0.89	20.464	0.165
A 2018	119.13	54.51	64.89	60.08	0.93	18.353	0.155
A 2019	118.85	54.18	56.98	54.69	0.96	23.048	0.363
A 2020	84.61	38.38	39.25	91.16	2.32	19.109	0.140
A 2021	87.35	39.54	67.99	59.83	0.88	18.737	0.091
A 2022	155.82	70.51	96.66	85.06	0.88	19.141	0.107
F 2023	172.69	78.71	82.30	72.43	0.94	20.947	0.098
F 2024	155.64	73.26	82.71	72.78	0.94	22.343	0.088
F 2025	153.06	72.04	84.47	74.33	0.94	23.331	0.078
F 2026	154.66	72.80	84.16	74.06	0.94	24.855	0.068
F 2027	177.44	83.52	86.40	76.03	0.94	31.186	0.058

Natural Resource Taxes

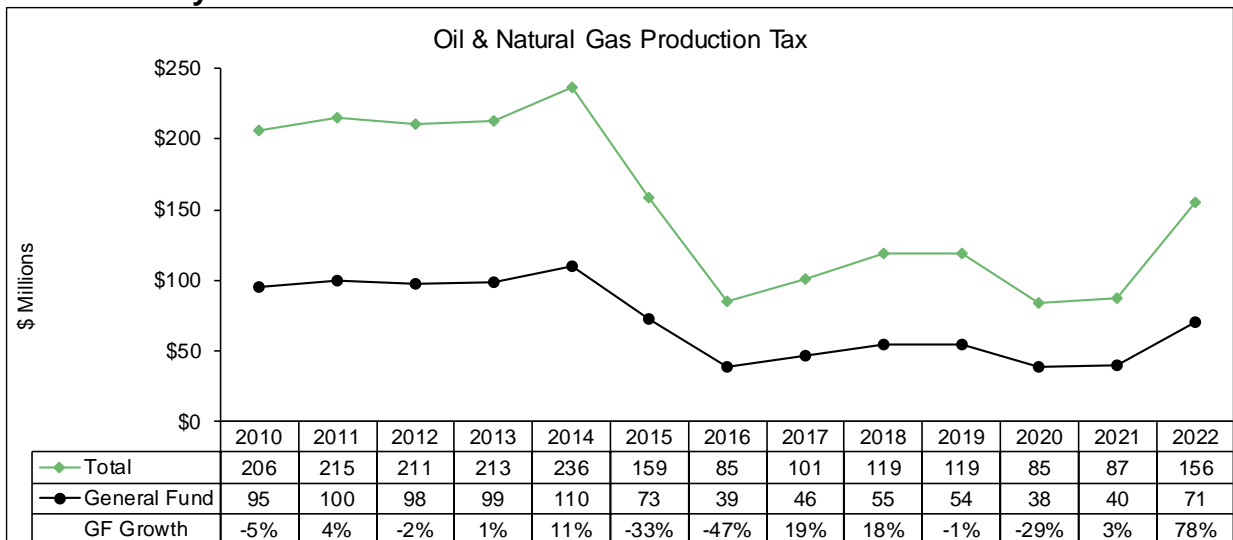
Oil & Natural Gas Production Taxes

CY	Henry Hub Price \$/MCF	Montana NG Price \$/MCF	HH/MT NG Price Ratio	Total Production Million MCFs	Holiday Production Million MCFs
A 2012	\$2.75	\$2.52	0.92	62.449	3.298
A 2013	3.73	3.01	0.81	63.354	5.415
A 2014	4.37	3.93	0.90	66.235	4.938
A 2015	2.61	1.58	0.60	78.803	4.384
A 2016	2.49	1.42	0.57	80.442	0.665
A 2017	2.97	2.02	0.68	82.595	0.379
A 2018	3.17	1.95	0.62	93.086	0.444
A 2019	2.57	1.04	0.41	101.195	1.796
A 2020	2.03	0.80	0.39	109.528	1.480
A 2021	3.91	2.47	0.63	96.088	1.404
A 2022	7.12	3.57	0.50	96.276	3.472
F 2023	5.55	3.06	0.55	91.314	3.247
F 2024	4.33	2.29	0.53	87.734	3.617
F 2025	4.40	2.34	0.53	85.196	1.570
F 2026	5.05	2.64	0.52	82.378	0.879
F 2027	5.51	2.90	0.53	80.444	0.871

Revenue Projection



Revenue History



Resource Indemnity Tax

Revenue Description

The state imposes a resource indemnity and ground water assessment (RIGWA) tax on the gross value of coal (based on the contract sales price), as well as most minerals, but not gravel, metals, oil, or natural gas.

Statutory Reference

Tax Rate – [15-38-104, MCA](#)

Tax Distribution – [15-38-106, MCA](#)

Date Due (metal producers) – March 31st following the end of the calendar year ([15-38-105, MCA](#); [15-38-106\(1\), MCA](#))

Date Due (mineral producers) – 60 days following the end of the calendar year ([15-38-105, MCA](#); [15-38-106\(1\), MCA](#))

Applicable Tax Rates

Coal: \$25 plus 0.4% of the gross value of coal produced in the preceding year in excess of \$6,250

Minerals: \$25 plus 0.5% of the gross value of minerals (excluding gravel and metals, and excluding oil and natural gas since the resource indemnity trust has reached \$100 million) produced in the preceding year in excess of \$5,000

Talc: \$25 plus 0.4% of the gross value of talc produced in the preceding year in excess of \$625

Vermiculite: \$25 plus 2.0% of the gross value of vermiculite produced in the preceding year in excess of \$1,250

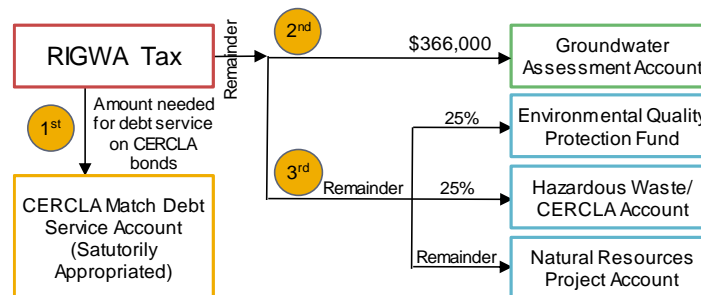
Limestone: \$25 plus 10.0% of the gross value of limestone produced in the preceding year in excess of \$250

Garnets: \$25 plus 1.0% of the gross value of garnets produced in the preceding year in excess of \$2,500

Collection Frequency: Annually

Distribution

Beginning FY 2004, the amount needed to cover debt service on Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) bonds (after amounts transferred from the CERCLA cost recovery account) is deposited first to the CERCLA match debt service account. Money is then apportioned in steps 2-3 as shown in the distribution chart.



Forecast Risks

- Coal and mineral prices
- Production

Revenue Estimate Methodology

Data

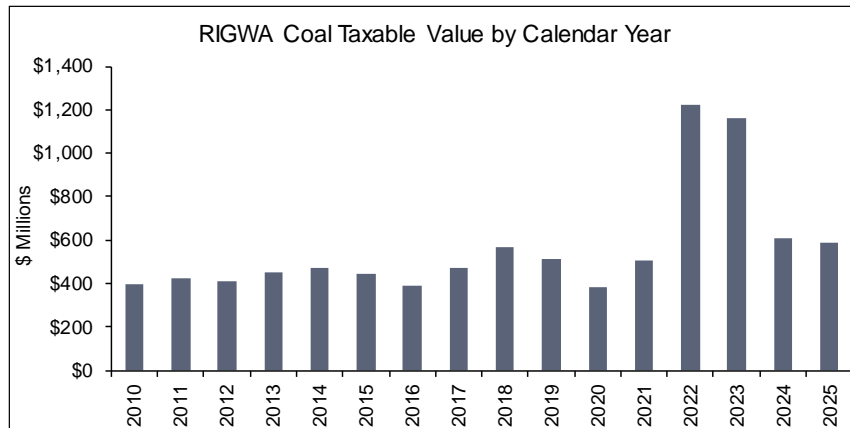
Natural Resource Taxes

Resource Indemnity Tax

The data used to estimate the resource indemnity and groundwater assessment (RIGWA) tax are obtained from the coal severance tax estimate and SABHRS.

Analysis

The gross value estimates prepared for the coal severance tax are used in the estimate for the RIGWA tax. The future taxable value of coal, produced by all mines, is estimated in the coal severance tax source. The future taxable value of other mineral production is estimated at the amount of the last known year.



The tax rates are applied to the production value of each of the components, coal and other minerals. The tax estimates for the two components are summed to produce the total estimate of the RIGWA tax.

Revenue Estimate Assumptions

This section contains the assumptions used to generate the LFD revenue estimates recommendation.

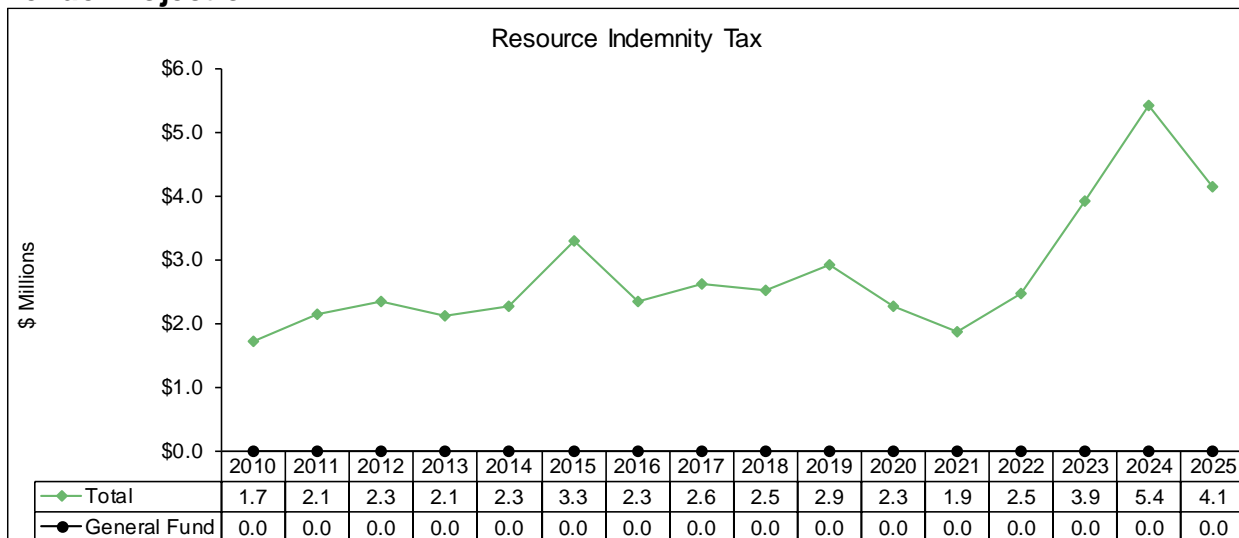
FY	Total Tax \$ Millions	GF Tax \$ Millions	Oil & NG \$ Millions	Coal \$ Millions	Other \$ Millions
A 2012	\$2,344	-	-	\$1,914	\$0.429
A 2013	2.11	-	-	1.76	0.35
A 2014	2.28	-	-	1.96	0.32
A 2015	3.30	-	-	2.22	1.08
A 2016	2.34	-	-	2.09	0.25
A 2017	2.62	-	-	1.80	0.82
A 2018	2.53	-	-	2.09	0.44
A 2019	2.92	-	-	2.27	0.65
A 2020	2.27	-	-	2.37	(0.10)
A 2021	1.87	-	-	1.99	(0.12)
A 2022	2.47	-	-	1.99	0.49
F 2023	3.92	-	-	3.83	0.09
F 2024	5.43	-	-	5.27	0.15
F 2025	4.15	-	-	3.91	0.24
F 2026	2.80	-	-	2.64	0.16
F 2027	2.75	-	-	2.56	0.19

Natural Resource Taxes

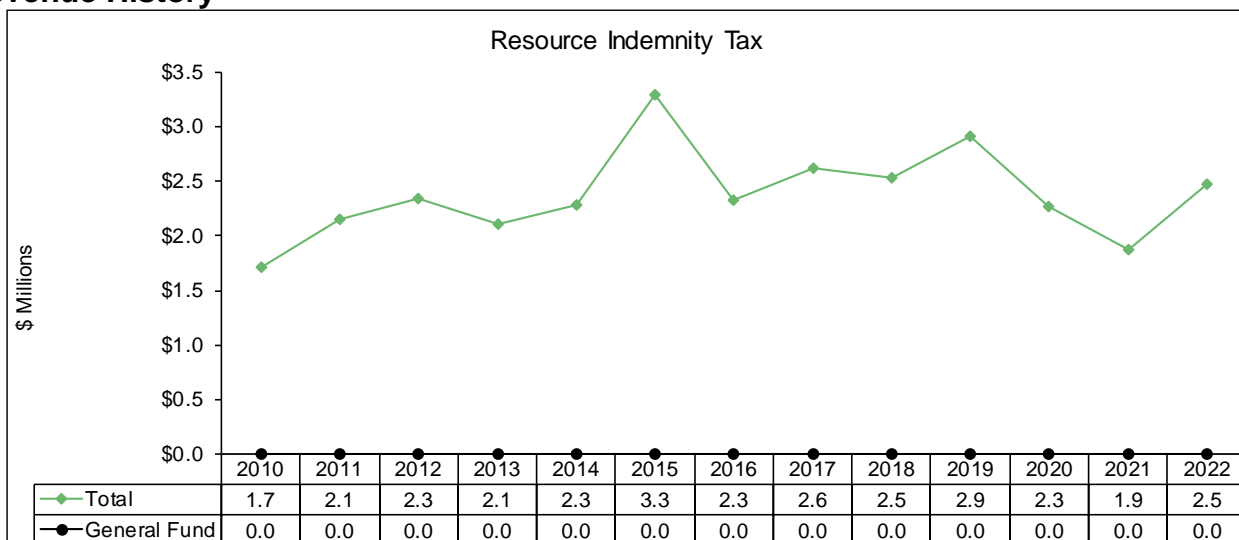
Resource Indemnity Tax

FY	Debt Service \$ Millions	Water Storage \$ Millions	Protection Fund \$ Millions	Ground \$ Millions	CERCLA Account \$ Millions	Projects Account \$ Millions
A 2012	\$0.267	\$0.150	\$0.390	\$0.366	\$0.390	\$0.780
A 2013	0.270	-	0.369	0.366	0.369	0.738
A 2014	0.272	0.150	0.373	0.366	0.373	0.745
A 2015	0.268	-	0.667	0.366	0.667	1.334
A 2016	0.270	0.150	0.387	0.366	0.387	0.774
A 2017	0.148	-	0.527	0.366	0.527	1.054
A 2018	0.144	0.150	0.468	0.366	0.468	0.936
A 2019	0.145	-	0.603	0.366	0.603	1.206
A 2020	0.145	0.150	0.402	0.366	0.402	0.804
A 2021	0.145	-	0.340	0.366	0.340	0.680
A 2022	0.145	0.150	0.452	0.366	0.452	0.905
F 2023	0.270	-	0.822	0.366	0.822	1.644
F 2024	0.270	0.150	1.160	0.366	1.160	2.320
F 2025	0.270	-	0.878	0.366	0.878	1.757
F 2026	0.270	0.150	0.504	0.366	0.504	1.009
F 2027	0.270	-	0.527	0.366	0.527	1.055

Revenue Projection



Revenue History



U.S. Mineral Royalties

Revenue Description

Under the federal Mineral Lands Leasing Act ([30 USC, Section 191](#)), 50% of all sales, bonuses, royalties, and rentals received from federal lands in Montana must be paid to the state; however, that rate is currently at 48%. The money is to be used as the legislature directs, giving priority to those subdivisions of the state socially or economically impacted by development of minerals leased under the federal act. The revenue produced on federal public lands includes royalties and bonuses from oil, gas, coal, and other mineral exploration and extraction.

Statutory Reference

Distribution – [17-3-240, MCA](#)

Collection Frequency: Monthly

Distribution

Receipts are deposited 75% to the general fund and 25% to the state special revenue mineral impact account. Money in the mineral impact account is statutorily appropriated for distribution to eligible counties in which the minerals were extracted.

Forecast Risks

- Coal, oil, and other mineral prices
- The amount of production on federal lands
- Federal legislative impacts

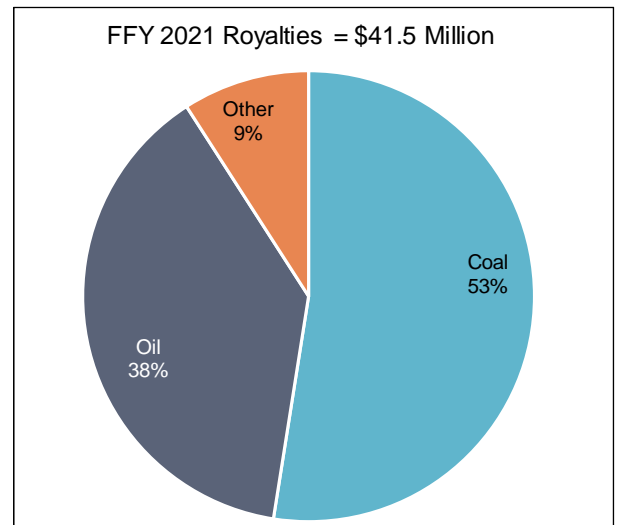
Revenue Estimate Methodology

Data

Federal fiscal year data on receipts by mineral type as well as royalty, bonus, rents, and other categories are combined with growth and distribution data from the coal and oil & natural gas analysis.

Analysis

The estimate for mineral royalties is obtained by multiplying together estimates for production & price (based on data from other natural resource analysis) and recent trends in the applicable royalty collections. Rents, bonuses, and other revenues are then simply trended as they are much more volatile than royalties. The estimates are based on the federal fiscal year, so a 25/75 split is used to convert to a state fiscal year. The adjacent chart shows royalties by source.



Revenue Estimate Assumptions

This section contains the assumptions used to generate the LFD revenue estimates recommendation.

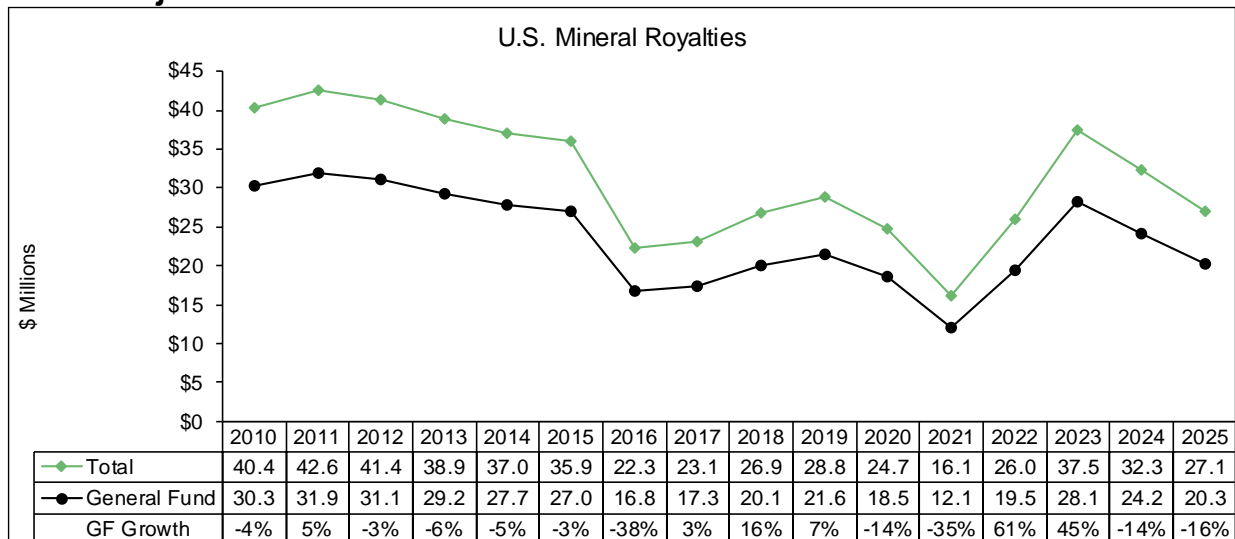
Natural Resource Taxes

U.S. Mineral Royalties

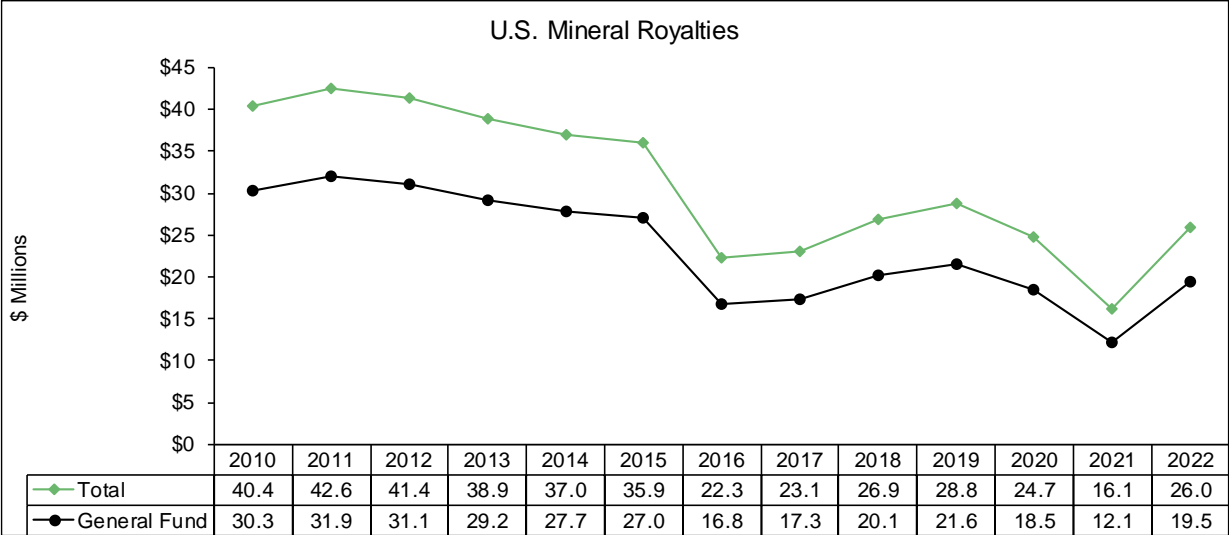
FY	Total Rev. \$ Millions	GF Rev. \$ Millions	FFY Total Rents \$ Millions	FFY Total Bonuses \$ Millions	FFY Total Royalties \$ Millions	FFY Total Other \$ Millions
A 2012	\$41.409	\$31.057	\$2.404	\$18.859	\$77.207	\$0.236
A 2013	38.940	29.205	2.247	3.143	72.476	1.844
A 2014	36.992	27.744	1.688	1.461	77.147	0.200
A 2015	35.947	26.960	1.368	0.139	68.839	0.149
A 2016	22.345	16.759	0.946	0.038	43.705	(0.241)
A 2017	23.096	17.322	0.870	0.763	47.650	0.671
A 2018	26.852	20.139	1.023	0.768	50.555	0.850
A 2019	28.760	21.570	0.840	2.598	59.146	1.280
A 2020	24.703	18.527	0.406	0.014	40.713	0.975
A 2021	16.109	12.082	0.333	0.236	41.131	1.061
A 2022	25.952	19.464	0.694	0.236	59.114	1.042
F 2023	37.523	28.143	0.659	0.236	81.933	1.042
F 2024	32.283	24.212	0.587	0.236	60.372	0.524
F 2025	27.054	20.291	0.536	0.236	53.282	0.524
F 2026	25.746	19.309	0.562	0.236	52.001	0.524
F 2027	25.429	19.072	0.608	0.236	51.493	0.524

FFY	Oil Royalties Millions	Coal Royalties Millions	Natural Gas Royalties Millions
A 2012	27.471	44.508	4.133
A 2013	25.158	42.946	3.956
A 2014	26.606	43.107	7.435
A 2015	21.680	43.148	3.905
A 2016	10.622	31.549	1.486
A 2017	12.831	33.265	1.488
A 2018	16.804	30.952	2.719
A 2019	17.811	37.706	3.435
A 2020	11.189	27.588	1.742
A 2021	15.959	21.806	2.880
A 2022	23.722	31.336	3.706
F 2023	20.145	57.897	3.547
F 2024	20.190	36.453	3.335
F 2025	20.564	29.157	3.198
F 2026	20.436	28.235	2.964
F 2027	20.922	27.347	2.850

Revenue Projection



Revenue History



Wholesale Energy Tax

Revenue Description

The wholesale energy transaction tax is imposed on the amount of electricity transmitted by a transmission services provider in the state.

Statutory Reference

Tax Rate – [15-72-104\(1\), MCA](#)

Tax Distribution – [15-72-106\(3\), MCA](#)

Date Due – 30th day of the month following the end of the calendar quarter ([15-72-110, MCA](#))

Applicable Tax Rates

The tax rate of \$0.15 per megawatt is applied to the number of megawatt hours transmitted. If the electricity is produced in-state and sold out-of-state, the taxpayer is the owner of the electrical generation property, and the tax is collected by the transmission services provider. If the electricity is produced in-state for delivery in-state, or is produced outside the state for delivery in-state, the taxpayer is the distribution services provider, and the tax is collected by the transmission services provider.

The tax does not apply to the following:

- Electricity that is transmitted through the state that is neither produced nor consumed in the state;
- Electricity generated in the state by an agency of the federal government for delivery outside the state;
- Electricity delivered to a distribution services provider that is a municipal utility or a rural electric cooperative which opts out of competition;
- Electricity delivered to a purchaser that received its power directly from a transmission or distribution facility owned by an entity of the U.S. government;
- Electricity meeting certain contractual requirements that is delivered by a distribution services provider that was first served by a public utility after December 31, 1996;
- Electricity that has been subject to the transmission tax in another state; and
- A 5% line loss exemption for transmission of electricity produced in the state for delivery outside of the state

Collection Frequency: Quarterly

Distribution: All proceeds are deposited into the general fund.

Forecast Risks

- Electricity prices
- Generation and transmission capacity
- Production outages

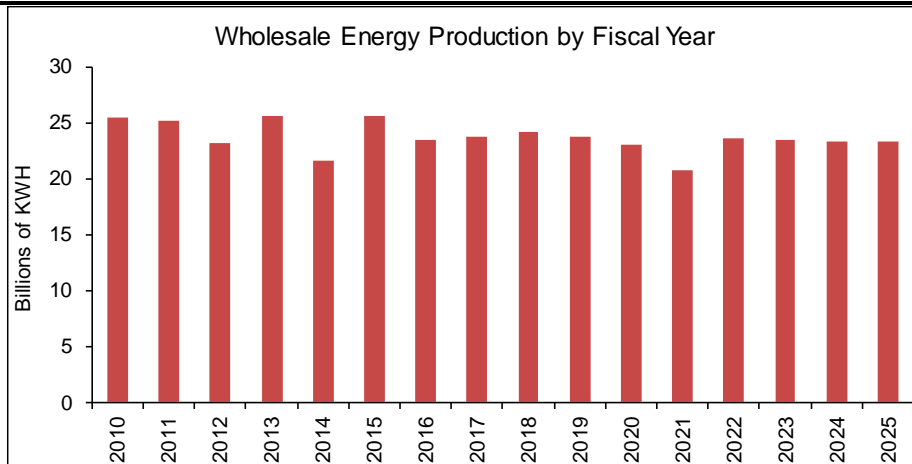
Revenue Estimate Methodology

Data

Data from quarterly reports produced by DOR provide a history of in-state and out-of-state kilowatt hours transmitted by each company.

Analysis

A trend of historical in and out-of-state kilowatt hour data is applied to the previous gross production amount and line loss is subtracted. Net taxable kilowatt hours are multiplied by the tax rate to produce total revenue from this source.

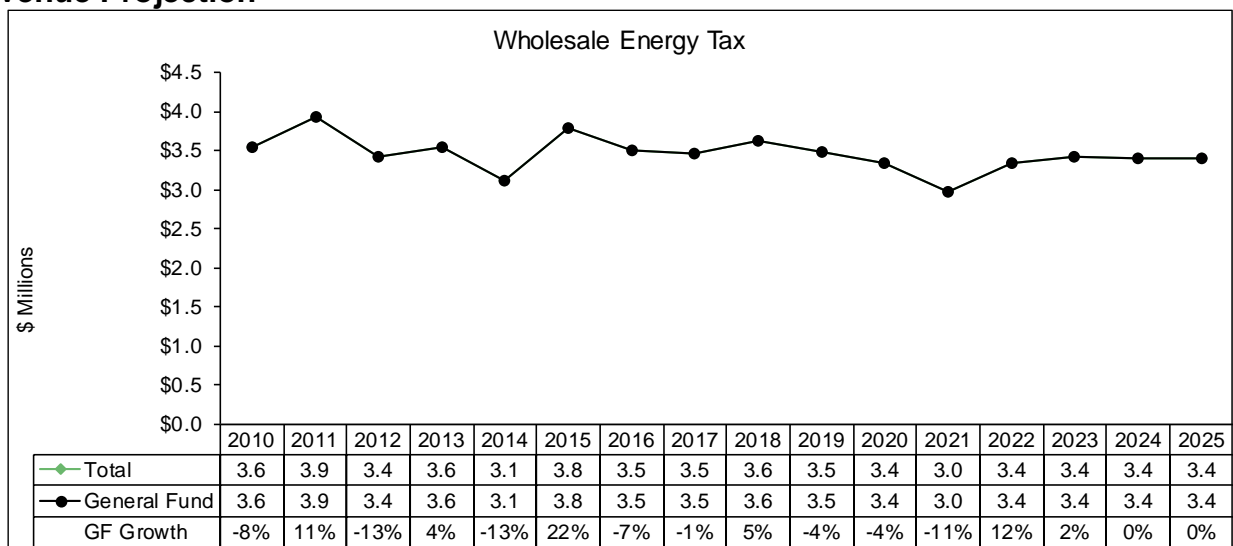


Revenue Estimate Assumptions

This section contains the assumptions used to generate the LFD revenue estimates recommendation.

FY	Total Tax \$ Millions	GF Tax \$ Millions	KWH Millions	Line Loss KWH Millions
A 2012	3.427	3.427	23,183	663
A 2013	3.558	3.558	25,620	781
A 2014	3.112	3.112	21,557	595
A 2015	3.795	3.795	25,661	783
A 2016	3.516	3.516	23,534	659
A 2017	3.464	3.464	23,799	670
A 2018	3.628	3.628	24,239	680
A 2019	3.490	3.490	23,830	635
A 2020	3.351	3.351	22,987	608
A 2021	2.981	2.981	20,813	513
A 2022	3.352	3.352	23,678	654
F 2023	3.427	3.427	23,485	642
F 2024	3.410	3.410	23,369	634
F 2025	3.398	3.398	23,284	630
F 2026	3.390	3.390	23,227	628
F 2027	3.403	3.403	23,320	634

Revenue Projection



Revenue History

