

# 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**



**Legislative Fiscal Division**



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# Legislative Fiscal Division

## Revenue Estimate Profile

### Coal Severance Tax

**Revenue Description:** For large producers, the coal severance tax is imposed on all coal production in excess of 20,000 tons per company per calendar year. However, producers of 50,000 tons or less in any calendar year are exempt from the tax..

**Statutory Reference:**

Tax Rate (MCA) – 15-35-103

Tax Distribution (MCA) – Montana Constitution, Article IX, Section 5; 15-35-108

Date Due – the report to the Department of Revenue and tax is due 30 days following the close of the quarter (15-35-104)

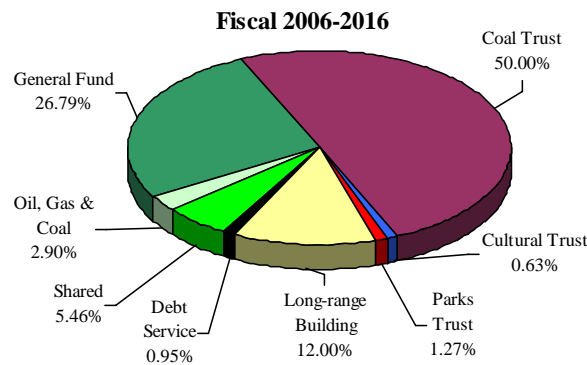
**Applicable Tax Rate(s):** 10.0% - on the value of coal with a heating quality < 7,000 BTU  
 15.0% - on the value of coal with a heating quality > 7,000 BTU

**Distribution:** (Percentage)

Account Name	Fiscal 1998 - 1999	Fiscal 2000 - 2002	Fiscal 2003	Fiscal 2004 - 2005	Fiscal 2006 - 2016
Permanent Trust	25.00	0.00	0.00	12.50	0.00
Treasure State Endowment	25.00	37.50	37.50	25.00	25.00
TSEP Regional Water	0.00	12.50	12.50	12.50	12.50
Big Sky Economic Development	0.00	0.00	0.00	0.00	12.50
General Fund	25.25	26.79	33.04	27.40	26.79
LRBP - Cash Account	12.00	12.00	10.00	12.00	12.00
LRBP - Debt Service	1.30	0.00	0.00	0.00	0.00
Park Acquisition Trust	1.27	1.27	0.00	1.27	1.27
Cultural Trust	0.00	0.63	0.00	0.63	0.63
Cultural & Aesthetic Projects	0.87	0.00	0.00	0.00	0.00
Water Development	0.95	0.95	0.95	0.95	0.95
Oil, Gas & Coal Natural Res.	0.00	0.00	0.00	0.00	2.90
Shared Account *	8.36	8.36	6.01	7.75	5.46

\* Used for Growth Through Agriculture, State Library, Conservation Districts, Coal Board (before FY 2006), and County Land Planning (before FY 2004).

Distribution Chart:



**Collection Frequency:** Quarterly: The coal severance tax is due 30 days after the end of the quarter.

# Legislative Fiscal Division

## Revenue Estimate Profile

### Coal Severance Tax

**% of Total General Fund Revenue:**

FY 2004 - 0.63%  
 FY 2005 - 0.67%  
 FY 2006 - 0.56%

**Revenue Estimate Methodology:**

The coal severance tax is applied to the value of coal produced. The coal severance tax estimate is developed by estimating the annual contract sales price and production for each producing coal company and any company anticipated to be producing within the 3-year period in question. From these estimates, taxable value can be determined to which is applied the tax rate. Since all production and price information is reported on a calendar year basis, the resulting calendar year estimates are converted into fiscal year estimates.

Data

Major coal companies are surveyed for anticipated production levels and general indications of coal prices. In addition, a review is performed of historical trends and current literature on coal prices. Data from quarterly reports produced by DOR provides a history of production and prices for individual coal companies. These companies are:

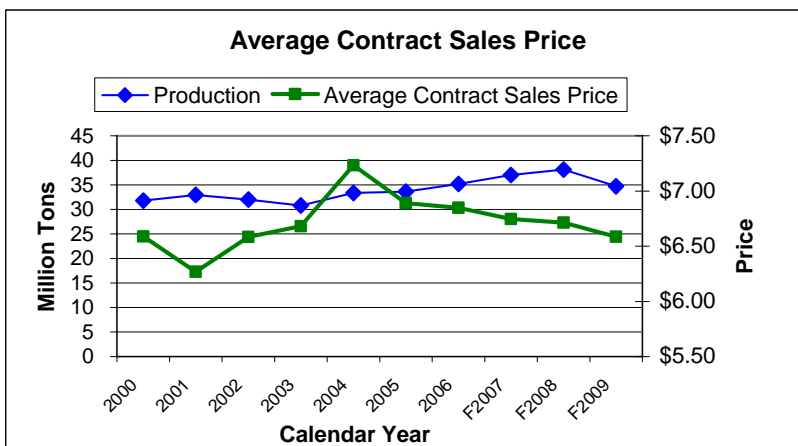
- Decker Coal Company
- Spring Creek Coal Company
- Western Energy Company
- Westmoreland Savage Corporation

Analysis

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

1. The future coal production for each company, as reported on the survey, is reduced by the exempt amount of 20,000 tons to get taxable tons.
2. To determine the future price for each company's coal, the company's average contract sales price for the last year was used since prices have remained stable for several years. 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 taxable value is multiplied by the applicable tax rate (10 or 15 percent) to determine total coal severance tax revenue. At this point the total represents estimates for calendar years. To convert the estimates to a fiscal year basis, half the previous calendar year's estimate is added to the half of the current calendar year's estimate.



# Legislative Fiscal Division

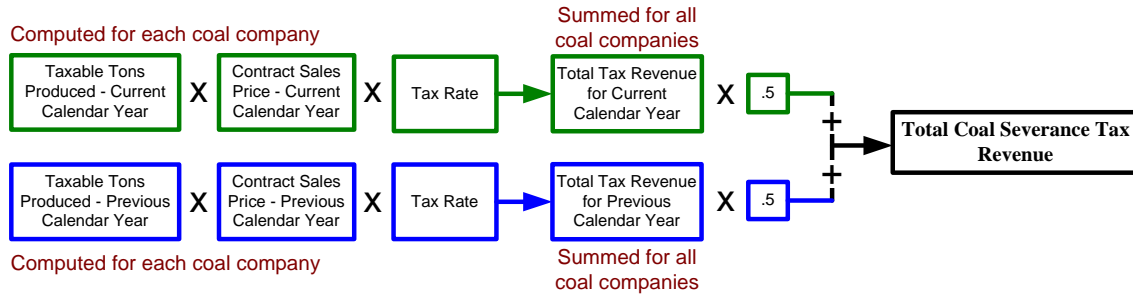
## Revenue Estimate Profile

### Coal Severance Tax

#### Adjustments and Distribution

Once total tax revenue for each fiscal year is determined, the applicable distribution percentages are applied.

#### Forecast Methodology:



#### Revenue Estimate Assumptions:

	t	Total Tax	GF Tax	GF Allocation	Tons (FY)	CSP (FY)	Fiscal
	<u>Fiscal</u>	<u>Millions</u>	<u>Millions</u>	<u>Percent</u>	<u>Millions</u>	<u>Dollars</u>	<u>Effective Rate</u>
Actual	2000	35.469791	9.502357	0.267900			
Actual	2001	32.337172	8.663128	0.267900			
Actual	2002	31.614047	8.469404	0.267900			
Actual	2003	29.423547	9.721540	0.330400			
Actual	2004	31.544681	8.643243	0.274000			
Actual	2005	37.634511	10.311856	0.274000			
Actual	2006	35.821524	9.596586	0.267900			
Forecast	2007	36.630000	9.813000	0.267900	36.095700	6.796709	0.149308
Forecast	2008	37.752000	10.114000	0.267900	37.567700	6.729608	0.149326
Forecast	2009	36.164000	9.688000	0.267900	36.411700	6.651880	0.149311

	t	Tons (CY)	CSP (CY)	Tax	Tax	Calendar	Calendar
	<u>Cal</u>	<u>Millions</u>	<u>Dollars</u>	<u>Rate</u>	<u>Rate</u>	<u>Tax</u>	<u>Effective Rate</u>
Actual	2000	31.784308	6.588243	0.150000	0.100000	31.253448	0.149250
Actual	2001	32.961265	6.266994	0.150000	0.100000	30.883924	0.149510
Actual	2002	31.980880	6.583257	0.150000	0.100000	31.441574	0.149339
Actual	2003	30.802151	6.680719	0.150000	0.100000	30.701209	0.149194
Actual	2004	33.365039	7.233763	0.150000	0.100000	36.030034	0.149282
Actual	2005	33.632110	6.888637	0.150000	0.100000	34.599359	0.149342
Actual	2006	35.173200	6.849089	0.150000	0.100000	35.966546	0.149298
Forecast	2007	37.018200	6.746939	0.150000	0.100000	37.293840	0.149319
Forecast	2008	38.117200	6.712776	0.150000	0.100000	38.211234	0.149337
Forecast	2009	34.706200	6.584999	0.150000	0.100000	34.116846	0.149282

Total Tax = Tons(FY) \* CSP(FY) \* Fiscal Effective

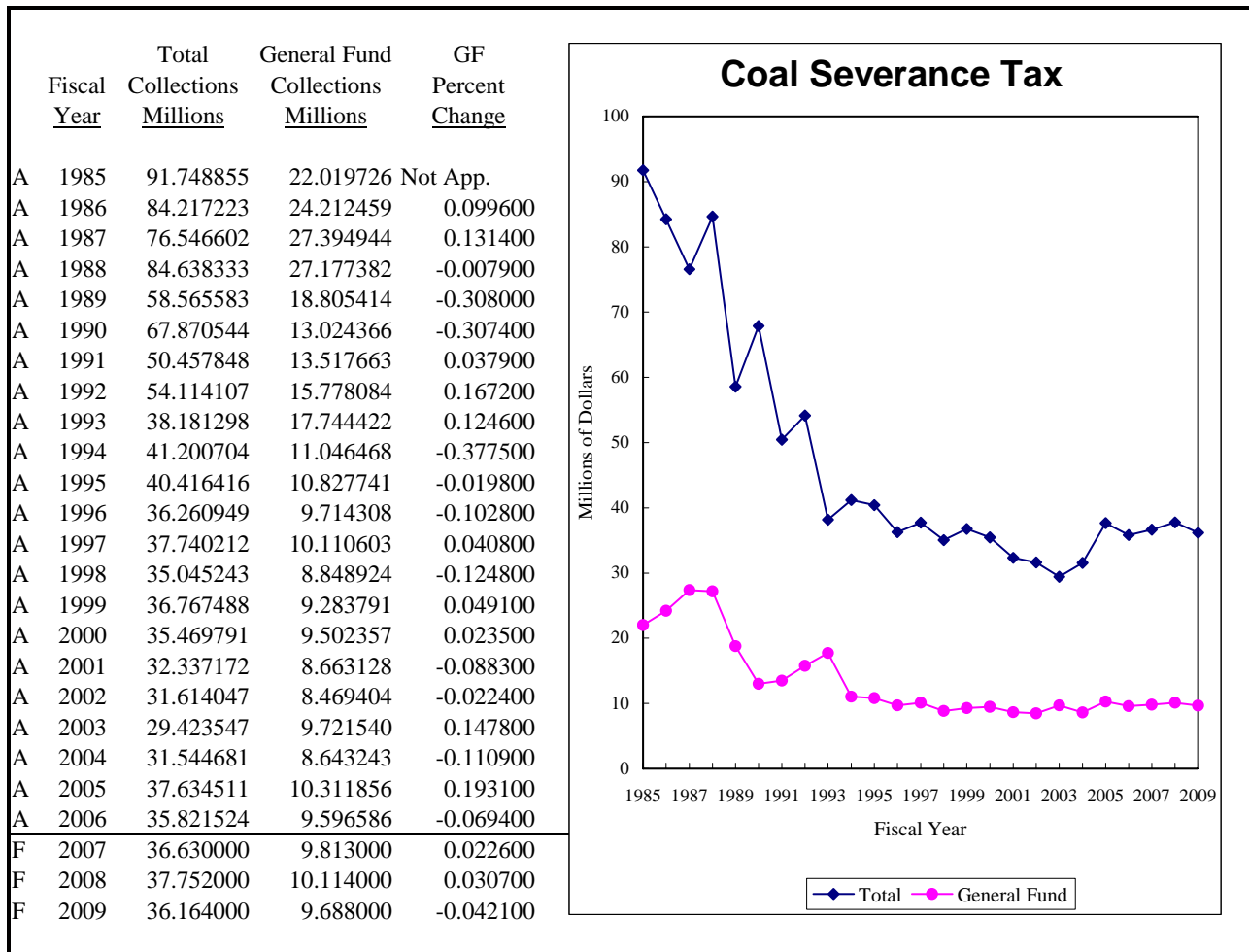
GF Tax = Tons(FY) \* CSP(FY) \* Fiscal Effective \* GF Allocation

# Legislative Fiscal Division

## Revenue Estimate Profile

### Coal Severance Tax

#### Revenue Projection:



**Data Source(s):** SABHRS, Department of Revenue Coal Tax Returns

**Contacts:** Coal Companies' Financial Personnel

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# Legislative Fiscal Division

## Revenue Estimate Profile

### Electrical Energy Tax

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**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 enacted by the 1999 legislature (HB 174).

**Statutory Reference:**

Tax Rate MCA) – 15-51-101

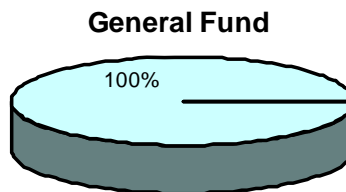
Tax Distribution (MCA) – 15-1-501(1), 15-51-103

Date Due – 30 days after the calendar quarter (15-51-101, 15-51-102)

**Applicable Tax Rate(s):** The tax of \$0.0002 per kilowatt-hour is levied against all electrical energy produced within the state. A deduction is allowed for "actual and necessary" energy use by the plant for the production of the energy.

**Distribution:** All proceeds are deposited into the general fund.

Distribution Chart:



**Collection Frequency:** Quarterly: The electrical energy tax is due 30 days after the end of the quarter.

**% of Total General Fund Revenue:**

FY 2004 – 0.34%

FY 2005 – 0.27%

FY 2006 – 0.27%

**Revenue Estimate Methodology:**

The electrical energy tax is applied to the number of kilowatt hours of electricity produced. The estimate for the tax revenue is derived by estimating the annual taxable kilowatt hours produced by each company and any company anticipated to be producing within the 3-year period in question. From these production estimates, the tax rate is applied. Since all kilowatt hours produced is reported on a calendar year basis, the resulting calendar year estimates are converted into fiscal year estimates.

Data

All electrical energy producing companies are surveyed for anticipated kilowatt hours produced, anticipated new production, and anticipated downtime or reduced production. Data from quarterly reports produced by DOR provide a history of kilowatt hours produced for each individual company. Department of Environmental Quality provides a list of pending permits for electrical generation facilities in Montana along with expected dates of operation, type of generation, capacity, and the ones with the most likelihood of coming online in the 2009 biennium.

Analysis

- The taxable kilowatt hours, as reported on the survey and adjusted for any downtime or production reductions, are summed.
- For those companies who did not respond or did not respond fully to the survey, estimates of production are derived from growth rates based on historical data.

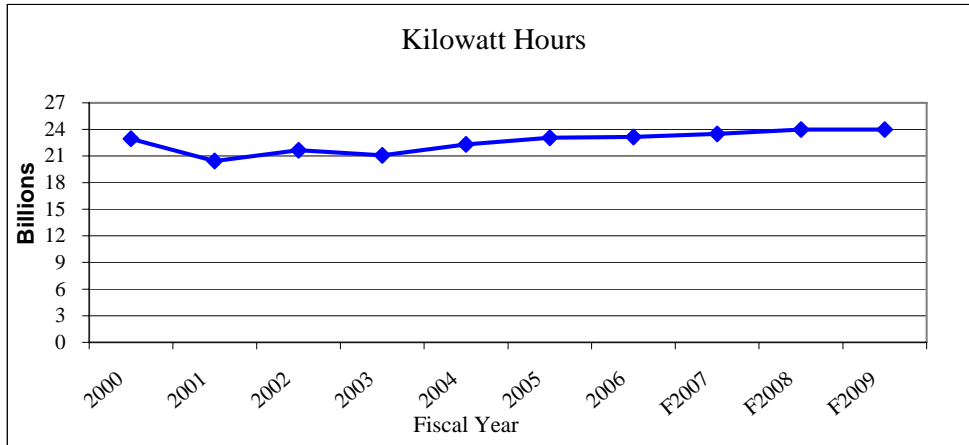
# Legislative Fiscal Division

## Revenue Estimate Profile

### Electrical Energy Tax

- Since the survey results are reported on a calendar year basis, they are converted to a fiscal year basis by adding half the previous calendar year's estimate to half of the current calendar year's estimate.

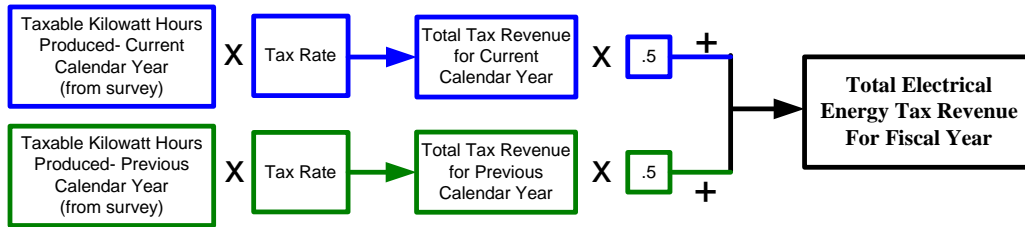
Taxable kilowatt hours are multiplied by the tax rate to derive total revenue from this source.



#### Adjustments and Distribution

Once total tax revenue for each fiscal year is determined, the applicable distribution percentage, 100 percent to the general fund, is applied.

#### Forecast Methodology:



#### Revenue Estimate Assumptions:

	t	Total Tax	GF Tax	KWH Fiscal	Credits	Tax
	Fiscal	Millions	Millions	Millions	Millions	Rate
Actual	2000	4.829002	4.829002	22937.761931	0.000189	0.000200
Actual	2001	4.057952	4.057952	20444.170990	0.000000	0.000200
Actual	2002	4.197477	4.197477	21642.219243	0.000000	0.000200
Actual	2003	4.130019	4.130019	21068.970125	0.000000	0.000200
Actual	2004	4.660529	4.660529	22310.179496	0.000000	0.000200
Actual	2005	4.074409	4.074409	23065.262028	0.000000	0.000200
Actual	2006	4.644508	4.644508	23156.213077	0.000000	0.000200
Forecast	2007	4.698000	4.698000	23490.774000	0.000000	0.000200
Forecast	2008	4.798000	4.798000	23989.247000	0.000000	0.000200
Forecast	2009	4.797000	4.797000	23981.800000	0.000000	0.000200

Total Tax = KWH Fiscal \* Tax Rate - Credits  
 GF Tax = Total Tax

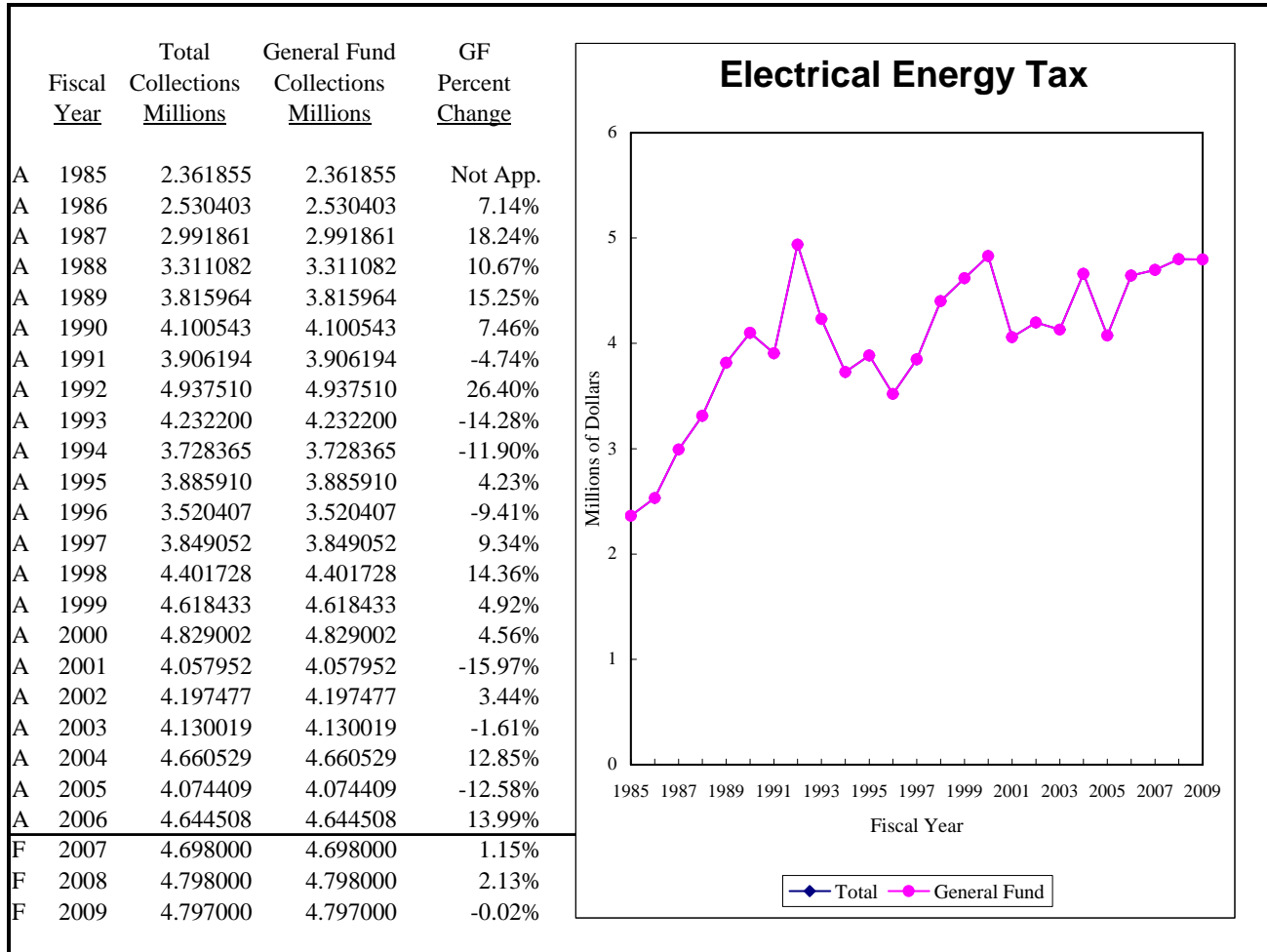


# Legislative Fiscal Division

## Revenue Estimate Profile

### Electrical Energy Tax

#### Revenue Projection:



**Data Source(s):** SABHRS, Department of Revenue Electrical Energy Tax Returns

**Contacts:** Electrical Companies' Financial Personnel

# Legislative Fiscal Division

## Revenue Estimate Profile

### Federal Forest Receipts

**Revenue Description:** 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. The state receives 25 percent of the federal forest receipts. The state sends the money to the county treasurer of the county in which the receipts were generated. Within thirty days, the county treasurer distributes the money to various county and state accounts.

Beginning November 2000, HR 2389 (federal legislation) fixed the allocation to the state at the average of the highest three years of forest receipts in the state. In subsequent years, the amounts are increased by one-half the rural CPI. No more than 20 percent and no less than 15 percent may be used by county governments for special projects on federal lands. The remainder is distributed under state law as described below.

**Statutory Reference:**

- Tax Rate – NA
- Tax Distribution MCA – 17-3-211, 17-3-212
- Date Due – the state treasurer distributes the funds within 30 days after receiving full payment

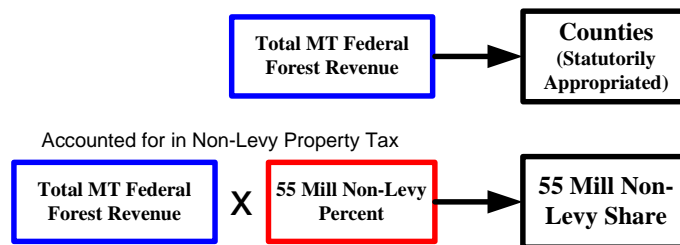
**Applicable Tax Rate(s):** N/A

**Distribution:** The county treasurer apportions federal forest receipts in the following manner:

- 66 2/3% to the general fund of the county
- 33 1/3% 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.

Distribution Chart:



**Collection Frequency:** Twice annually (usually October and December).

**% of Total General Fund Revenue:** Non levy is included in “Property Tax: 55 mills”.

**Revenue Estimate Methodology:** The LFD uses a number of analytical techniques to develop relevant assumptions for this source of revenue. Historical data trends, economic conditions, input from industry experts, company surveys, and etc., are examples of information used to formulate these assumptions. The techniques used to develop these assumptions may vary from biennium to biennium and are highly dependent on availability of information, professional intuition/judgment, and a detailed analysis of the revenue source. The applicable assumptions used by the LFD to develop a revenue estimate for this source are provided in the “Revenue Estimate Assumptions” section of this document. The following summarizes the LFD process used to develop the revenue estimate.

# Legislative Fiscal Division

## Revenue Estimate Profile

### Federal Forest Receipts

With the passage of federal HR 2389 in 2000, the level of forest receipts by the state was fixed at the highest three years of receipts from 1986 through 2000. Beginning in fiscal 2003, the average level of receipts for the prior year will grow at one-half the rate of rural inflation (for cities with less than 50,000 population). The state general fund share is the ratio of 55 mills to the sum of the countywide education accounts in each county in which the timber is harvested and is received by the state as non levy property tax.

#### Forecast Methodology:



#### Revenue Estimate Assumptions:

	t	Total Tax	GF Tax	CPI Percent	50% CPI %
	<u>Fiscal</u>	<u>Millions</u>	<u>Millions</u>	<u>Change</u>	<u>Change</u>
Actual	2000	6.283122	0.000000	3.3613%	
Actual	2001	7.185037	0.000000	2.7875%	
Actual	2002	13.474861	0.000000	1.6384%	
Actual	2003	12.478757	0.000000	2.2790%	0.8000%
Actual	2004	12.490680	0.000000	2.6630%	1.1395%
Actual	2005	12.431155	0.000000	3.3880%	1.3315%
Actual	2006	12.799829	0.000000	3.2258%	1.6940%
Forecast	2007	13.006000	0.000000	2.1825%	1.6129%
Forecast	2008	13.148000	0.000000	2.0388%	1.0913%
Forecast	2009	13.282000	0.000000	1.7602%	1.0194%

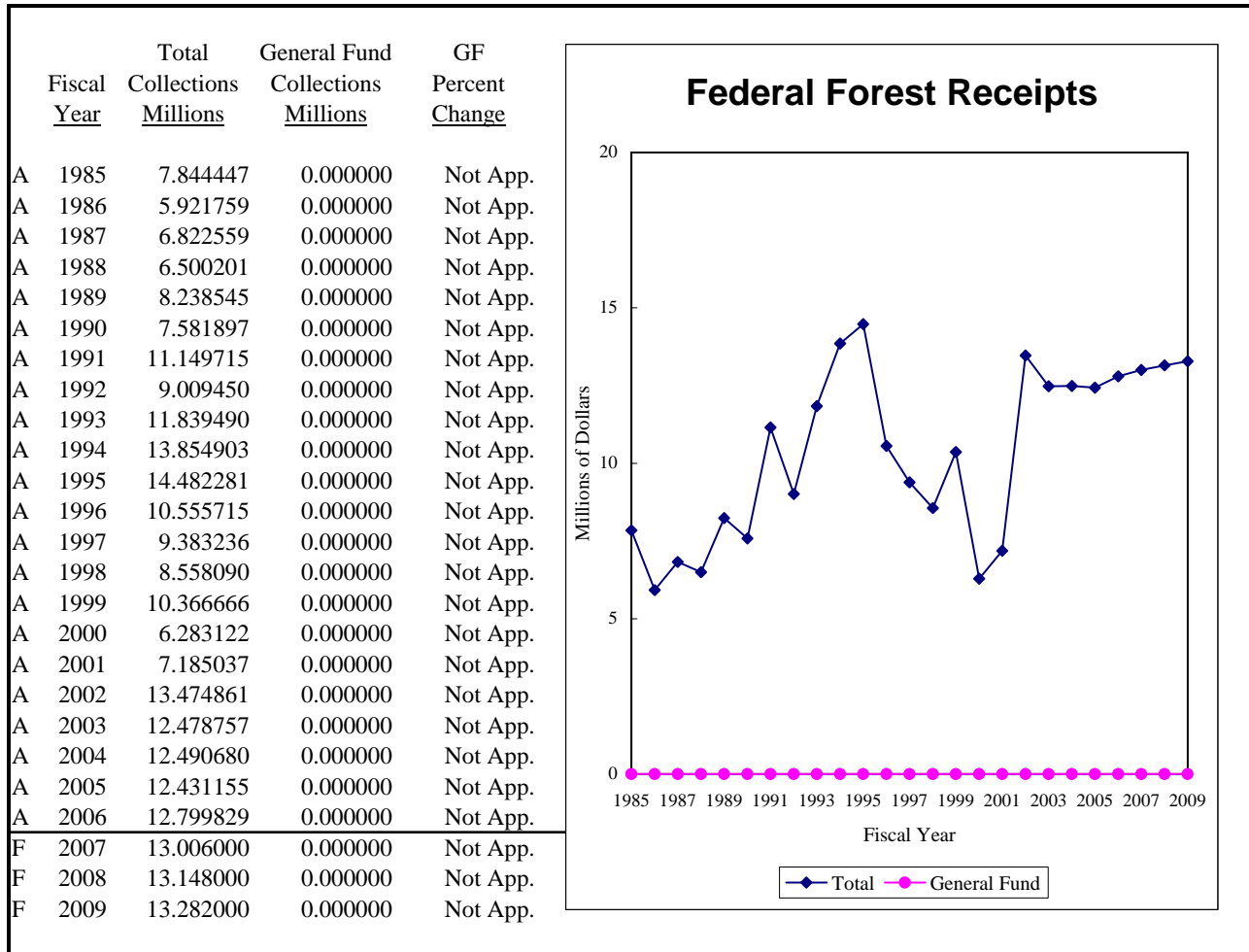
$$\text{Total Tax} = \text{Total Tax Previous Year} * (1 + 50\% \text{ CPI } \%)$$

# Legislative Fiscal Division

## Revenue Estimate Profile

### Federal Forest Receipts

**Revenue Projection:**



**Data Source(s):** SABHRS, Department of Labor

**Contacts:** Montana Department of Labor, Montana Association of Counties

# Legislative Fiscal Division

## Revenue Estimate Profile 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. Senate Bill 30, enacted in the August 2002 special legislative session, revised the payment of taxes from once to twice a year. In doing so, the exemptions in the following table apply to each 6-month period rather than a full year as it was prior to Senate Bill 30. A company taxed at both rates can claim both exemptions.

**Statutory Reference:**

Tax Rate (MCA) – 15-37-103

Tax Distribution (MCA) – 15-37-117

Date Due – August 15<sup>th</sup> for period January through June, March 31<sup>st</sup> for period July through December (15-37-105)

**Applicable Tax Rate(s):** The tax rate for a 6-month period is as follows:

Gross value is defined as monetary amounts or refined metal received for the products less:

1. Basic treatment and refinery charges
2. Transportation costs from the mine to a mill or other processor
3. Quantity and price deductions
4. Interest
5. Penalty metal, impurity and moisture deductions

For concentrates shipped to a smelter, mill, or reduction work:	For gold, silver, or any platinum group metal that is dore*, bullion, or matte* and that is shipped to a refinery:												
<table style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left;"><u>Gross Value</u></th> <th style="text-align: left;"><u>Rate</u></th> </tr> <tr> <td>\$0-\$250,000</td> <td>Exempt</td> </tr> <tr> <td>\$250,001 and Above</td> <td>1.81%</td> </tr> </table>	<u>Gross Value</u>	<u>Rate</u>	\$0-\$250,000	Exempt	\$250,001 and Above	1.81%	<table style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left;"><u>Gross Value</u></th> <th style="text-align: left;"><u>Rate</u></th> </tr> <tr> <td>\$0-\$250,000</td> <td>Exempt</td> </tr> <tr> <td>\$250,001 and Above</td> <td>1.6%</td> </tr> </table>	<u>Gross Value</u>	<u>Rate</u>	\$0-\$250,000	Exempt	\$250,001 and Above	1.6%
<u>Gross Value</u>	<u>Rate</u>												
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\$250,001 and Above	1.81%												
<u>Gross Value</u>	<u>Rate</u>												
\$0-\$250,000	Exempt												
\$250,001 and Above	1.6%												
<p>* Dore: A mixture of gold and silver in cast bars                      Matte: A crude mixture of sulfides formed in smelting sulfide ores of metals</p>													

**Distribution:** The distribution of the metal mines tax has been altered several times since the 1990s. Prior to the 2005 legislature, the most recent change had been enacted by the 2001 legislature in Senate Bill 484 (effective July 1, 2002) that created a hard-rock mining reclamation debt service fund to pay debt service on the \$8.0 million of bonds authorized for state costs related to hard-rock mining reclamation, operation, and maintenance. The 8.5 percent allocation of metalliferous mines tax revenue previously allocated to the orphan share account was allocated to the hard-rock mining reclamation debt service fund. The 2005 legislature increased the allocation to counties from 24 percent to 25 percent and decreased the general fund allocation from 58 percent to 57 percent. The table below shows recent historical distributions of the tax revenue.

<b>Distribution of Metalliferous Mines Tax (Percent)</b>						
	<b>Fiscal</b>	<b>Fiscal</b>	<b>Fiscal</b>	<b>Fiscal</b>	<b>Fiscal</b>	<b>Fiscal</b>
	<u>1994-1995</u>	<u>1996-1997</u>	<u>1998-2002</u>	<u>2003</u>	<u>2004-2005</u>	<u>2006&amp;Beyond</u>
General Fund	58.0	58.0	58.0	65.0	58.0	57.0
Counties *	25.0	25.0	24.0	24.0	24.0	25.0
Hard Rock Reclamation Debt Service	0.0	0.0	0.0	8.5	8.5	8.5
Reclamation & Development Grants	0.0	4.8	7.0	0.0	7.0	7.0
Hard Rock Mining	1.5	1.5	2.5	2.5	2.5	2.5
RIT Trust	15.5	0.0	0.0	0.0	0.0	0.0
Groundwater Assessment	0.0	2.2	0.0	0.0	0.0	0.0
Abandoned Mines	0.0	8.5	0.0	0.0	0.0	0.0
Orphan Share	<u>0.0</u>	<u>0.0</u>	<u>8.5</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
	100.0	100.0	100.0	100.0	100.0	100.0

\* Statutorily appropriated

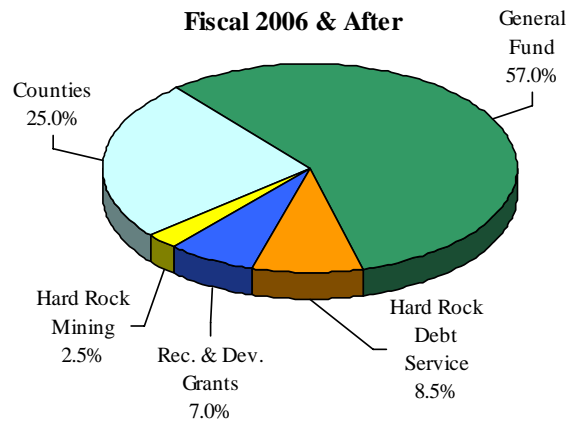
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# Legislative Fiscal Division

## Revenue Estimate Profile Metalliferous Mines Tax

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### Distribution Chart:



**Collection Frequency:** Biannually

### **% of Total General Fund Revenue:**

FY 2004 – 0.23%  
FY 2005 – 0.34%  
FY 2006 – 0.41%

### **Revenue Estimate Methodology:**

The metalliferous mines tax is applied to the taxable gross value of production. The metalliferous mines tax estimate is developed by estimating the annual sales price for each type of metal produced and the anticipated production quantity of each metal by company. From these estimates, taxable gross value can be determined to which an effective tax rate is applied. Since all production and price information is reported on a calendar year basis, the resulting calendar year estimates are converted into fiscal year estimates.

### Data

Mining companies are surveyed for anticipated production levels, general indications of applicable metal prices, and any possible changes in production due to expansion or contraction. Historical and future prices are obtained from various sources depending on the metal. Common sources include COMEX, NYMEX, and KITCO. In addition, a review is performed of historical trends, current literature on metals and metal prices, and companies' 10-Q reports. Data from biannual reports produced by DOR provide a history of production and prices by commodity and taxable gross value for each mining company. These companies are:

Golden Sunlight  
Stillwater Mining  
Montana Tunnels  
Montana Resources  
Hallet Minerals  
ORO Management  
Genesis

### Analysis

The taxable value of metals is determined in a four-step process:

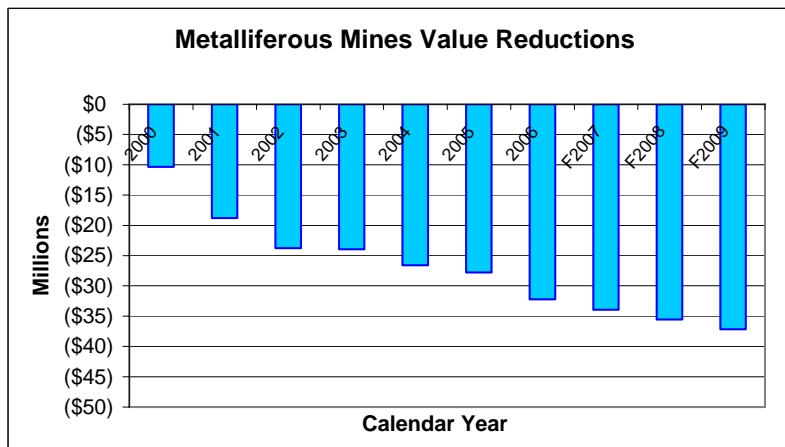
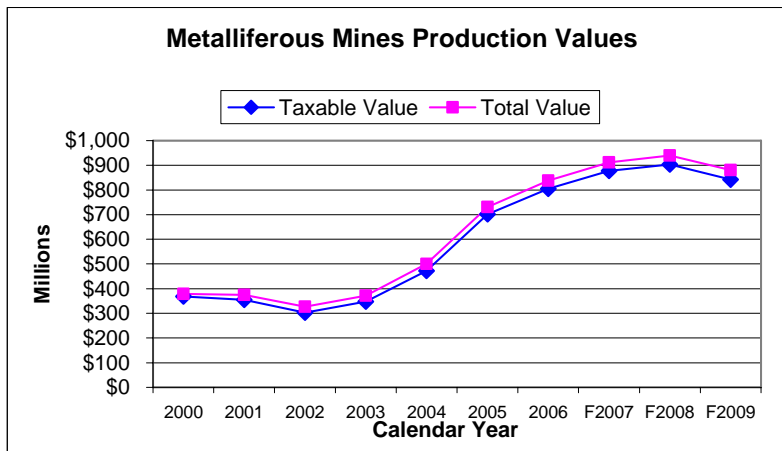
- As reported on the survey, future metals production for each company is summed by commodity. Amounts may be adjusted to fit with historical trends or if major changes are expected from historical production.
- To determine the future price for each metal, a number of different techniques are used depending on the commodity and the reasonableness of future prices based on research of the literature and directions of future markets.

# Legislative Fiscal Division

## Revenue Estimate Profile

### Metalliferous Mines Tax

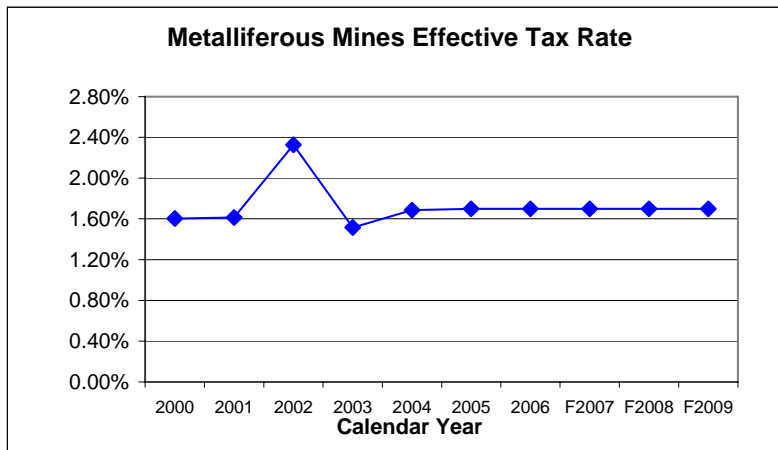
- Copper, gold, silver, palladium, platinum - the price reported from the most recent half-year report is increased by the percentage growth for that year as shown on the futures market.
- Lead, zinc, rhodium, nickel – the price for the last known calendar year is used for all future years.
- Molybdenum – Market prices reached a peak of \$40 in May 2005. Forecasts by Phelps Dodge indicate a drop in the fourth quarter to around \$24. The estimates use \$22.50 for each year which is the price reported for the first half of calendar 2006.
- The estimated production amount for each metal for all companies is summed and multiplied by the estimated price for that metal. This is done for each metal and the products summed to yield a total gross value.
- Total taxable value is obtained by reducing the total gross value by: a) the tax exempt amount of \$250,000/year for each company; and b) allowable treatment, refinery, transportation, and other costs.



Taxable value is multiplied by an effective tax rate. Since a company's taxable value could be subject to two tax rates - 1.81 percent for concentrates shipped to a smelter, mill or reduction work and 1.6 percent for dore, bullion, or matte that is shipped to a refinery - an effective tax rate is used to capture both these rates. The effective tax rate for FY 2006 was rounded and used for the estimate. The rate is consistent with previous years. The estimate is obtained by multiplying the total taxable value by the effective tax rate.

# Legislative Fiscal Division

## Revenue Estimate Profile Metalliferous Mines Tax

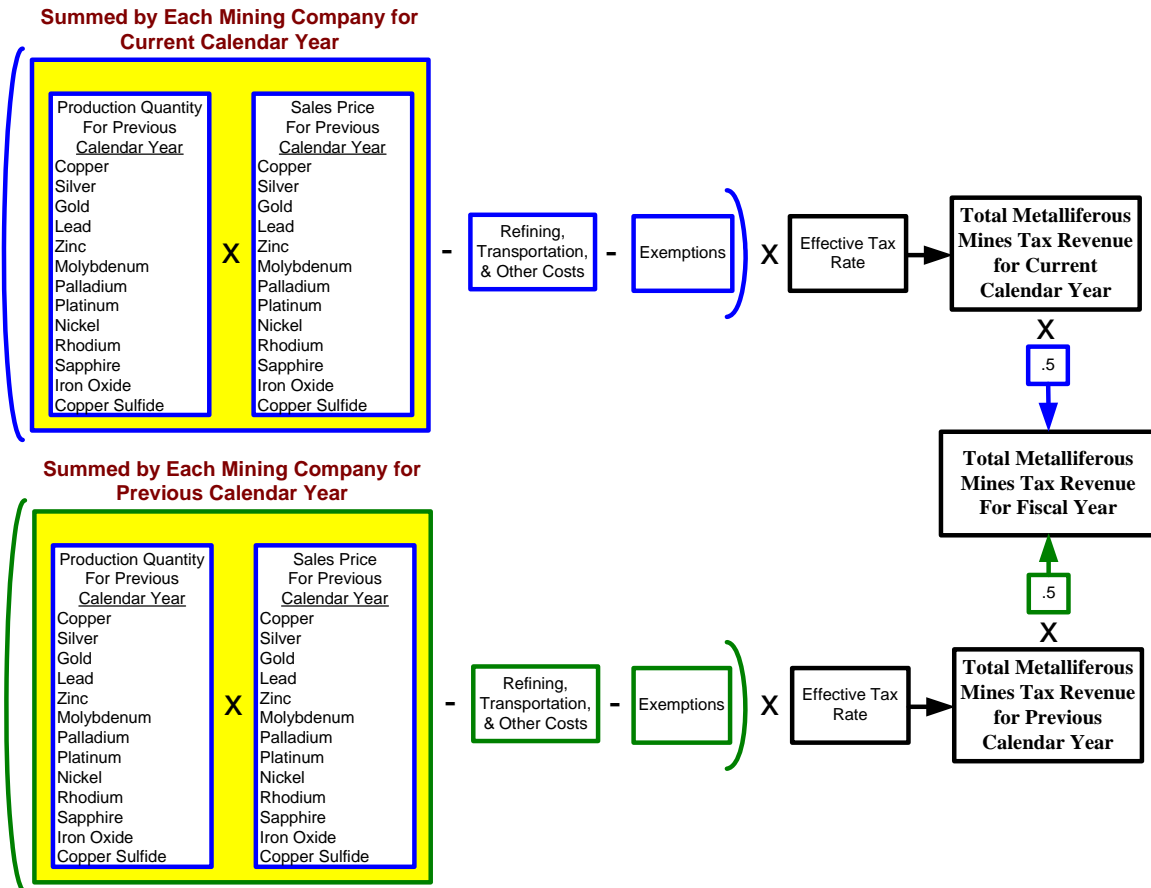


At this point the total represents estimates for calendar years. To convert the estimates to a fiscal year basis, half the previous calendar year's estimate is added to the half of the current calendar year's estimate.

### Adjustments and Distribution

Once total tax revenue for each fiscal year is determined, the applicable distribution percentages are applied.

### Forecast Methodology:





# Legislative Fiscal Division

## Revenue Estimate Profile Metalliferous Mines Tax

### Revenue Estimate Assumptions:

	<u>t</u>	<u>Total Tax</u>	<u>GF Tax</u>	<u>Tax Value CY</u>	<u>Effective CY</u>	<u>GF Allocation</u>
	<u>Fiscal</u>	<u>Millions</u>	<u>Millions</u>	<u>Millions</u>	<u>Rate</u>	<u>Percent</u>
Actual	2000	4.661371	2.703031	369.117889		57.9879%
Actual	2001	5.923752	3.417475	355.643466		57.6911%
Actual	2002	5.740242	3.329340	303.045425		58.0000%
Actual	2003	7.055900	4.586335	347.630082		65.0000%
Actual	2004	5.572191	3.231871	472.984838	0.016870	58.0000%
Actual	2005	9.076338	5.264276	702.353328	0.017000	58.0000%
Actual	2006	12.435050	7.028159	804.601620	0.017000	56.5189%
Forecast	2007	14.296000	8.149000	877.225211	0.017000	57.0000%
Forecast	2008	15.138000	8.629000	903.709650	0.017000	57.0000%
Forecast	2009	14.840000	8.459000	842.108620	0.017000	57.0000%

<u>Comdty.</u>	<u>t</u>	<u>Copper</u>	<u>Silver</u>	<u>Gold</u>	<u>Lead</u>	<u>Zinc</u>	<u>Moly</u>	<u>Palladium</u>
<u>Prod.</u>	<u>Cal</u>	<u>Millions</u>	<u>Millions</u>	<u>Millions</u>	<u>Millions</u>	<u>Millions</u>	<u>Millions</u>	<u>Millions</u>
Actual	2000	4.311635	1.579330	0.291116	10.105733	21.461326		
Actual	2001	0.279519	0.867094	0.273483	14.750164	24.383338		
Actual	2002	0.594816	0.431664	0.147947	6.454187	9.594224		
Actual	2003	3.586936	0.422095	0.299258	10.620022	14.550050		
Actual	2004	73.520284	1.431613	0.044652	8.977044	17.050902		
Actual	2005	83.678136	1.970639	0.127334	9.190636	14.296209		
Actual	2006	86.012000	2.175000	0.016700	1.196000	3.084000		
Forecast	2007	94.667000	3.654000	0.083600	17.728000	48.144000		
Forecast	2008	94.754000	3.686000	0.084300	18.764000	54.614000		
Forecast	2009	94.887000	3.022000	0.015000	0.000000	0.000000		

# Legislative Fiscal Division

## Revenue Estimate Profile

### Metalliferous Mines Tax

Comdty. Prod.	t Cal	Platinum Millions	Nickel Millions	Rhodium Millions	Sapphire Millions	Copper Sul Millions	Deduction Millions	Refining Millions
Actual	2000		0.000000		0.000000	0.000000		-10.330456
Actual	2001		0.626935		0.000000	0.000000		-18.811518
Actual	2002		1.254207		0.000000	0.000000		-23.786060
Actual	2003		1.378746		0.000000	0.000000		-23.933463
Actual	2004		1.282423		0.000000	0.000000	-1.000000	-26.616285
Actual	2005		1.306813		0.000000	0.000000	-1.000000	-27.774220
Actual	2006		1.738000		0.000000	0.000000	-1.000000	-32.235000
Forecast	2007		1.156000		0.000000	0.000000	-1.000000	-33.959000
Forecast	2008		1.327000		0.000000	0.000000	-1.000000	-35.564000
Forecast	2009		1.452000		0.000000	0.000000	-1.000000	-37.153000

Comdty. Price	t Cal	Copper Dollars	Silver Dollars	Gold Dollars	Lead Dollars	Zinc Dollars	Moly Dollars	Palladium Dollars
Actual	2000	0.646454	4.603820	276.279562	0.200607	0.502159		
Actual	2001	0.624133	4.067554	267.641016	0.217897	0.377707		
Actual	2002	0.644951	3.801359	312.723867	0.201686	0.368474		
Actual	2003	0.463017	5.229937	366.865992	0.280168	0.416065		
Actual	2004	1.038623	6.599440	411.438865	0.433676	0.498697		
Actual	2005	1.492033	7.003997	448.926031	0.448440	0.662373		
Actual	2006	3.000000	11.500000	590.000000	0.450000	0.660000		
Forecast	2007	2.788000	11.951000	623.740000	0.450000	0.660000		
Forecast	2008	2.594000	12.101000	656.496000	0.450000	0.660000		
Forecast	2009	2.622000	12.233000	689.645000	0.450000	0.660000		

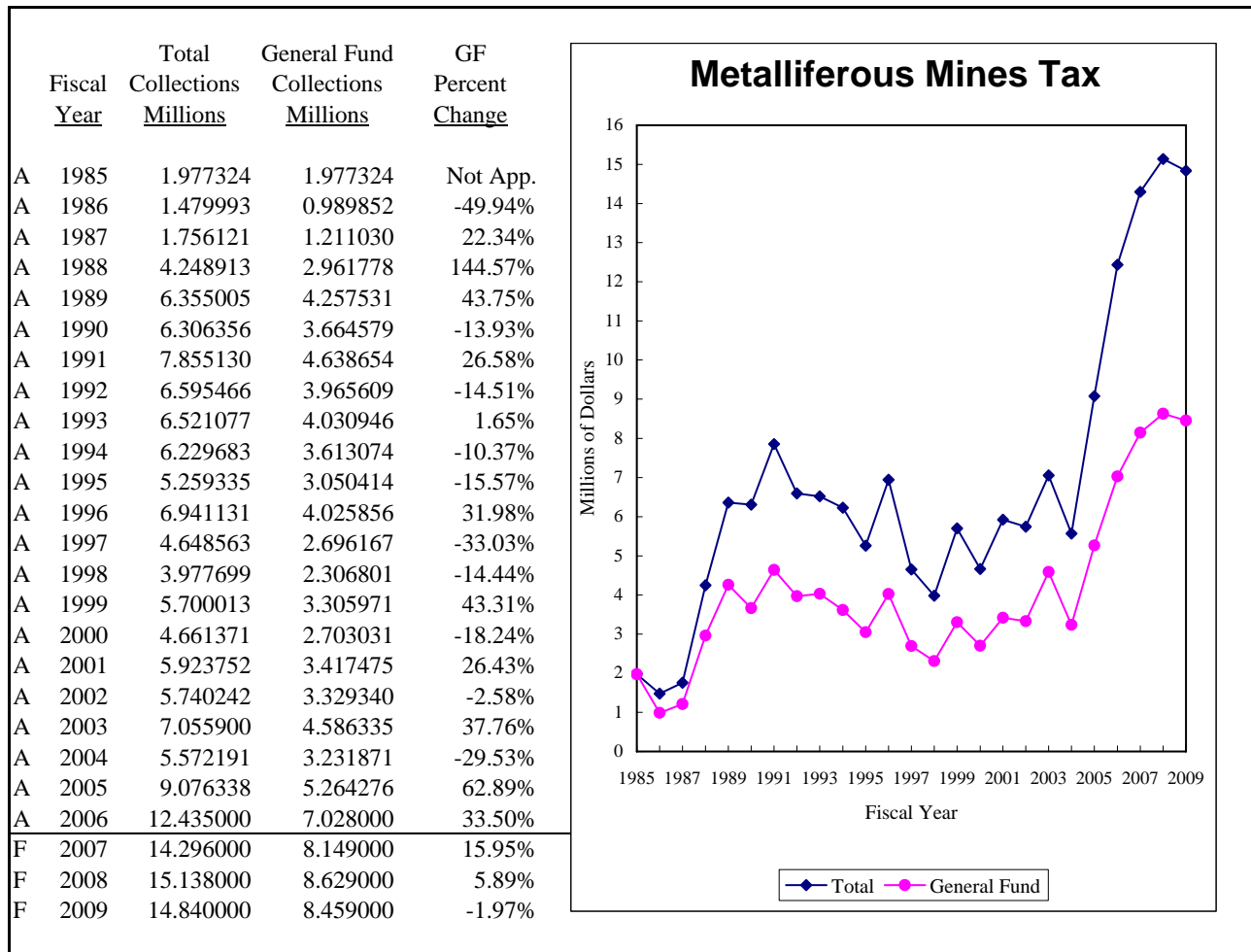
Comdty. Price	t Cal	Platinum Dollars	Nickel Dollars	Rhodium Dollars	Sapphire Dollars	Copper Sul Dollars
Actual	2000				0.000000	0.000000
Actual	2001		2.024806		0.000000	0.000000
Actual	2002		2.905846		0.000000	0.000000
Actual	2003		4.101375		0.000000	0.000000
Actual	2004		6.300544		0.000000	0.000000
Actual	2005		5.956539		0.000000	0.000000
Actual	2006		5.960000		0.000000	0.000000
Forecast	2007		5.960000		0.000000	0.000000
Forecast	2008		5.960000		0.000000	0.000000
Forecast	2009		5.960000		0.000000	0.000000

Total Tax = Copper Prod. \* Copper Price + Silver Prod. \* Silver Price + Gold Prod. \* Gold Price +  
 Lead Prod. \* Lead Price + Zinc Prod. \* Zinc Price + Moly Prod. \* Moly Price +  
 Palladium Prod. \* Palladium Price + Platinum Prod. \* Platinum Price + Nickel Prod. \* Nickel Price +  
 Rodium Prod. \* Rodium Price + Deduction + Refining  
 GF Tax = (Previous Cal. Total Tax + Current Cal. Total Tax) \* GF Allocation

# Legislative Fiscal Division

## Revenue Estimate Profile Metalliferous Mines Tax

### Revenue Projection:



**Data Source(s):** SABHRS, Department of Revenue, *Wall Street Journal*, KITCO, COMEX, NYMEX, company 10K and 10Q reports

**Contacts:** Major Producers

# Legislative Fiscal Division

## Revenue Estimate Profile

### Oil and Natural Gas Production Tax

**Revenue Description:** The oil and natural gas production tax is imposed on the production of petroleum 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.

**Statutory Reference:**

- Tax Rate (MCA) – 15-36-304. Privilege and license tax – 82-11-131, Administrative Rules 36.72.1242
- Tax Distribution (MCA) – 15-36-331(4), 15-36-332(2&3) (to taxing units)
- Date Due – within 60 days after the end of the calendar quarter (15-36-311(1))

**Applicable Tax Rate(s):** The oil and natural gas production tax has numerous tax rates depending on several factors. These factors include whether the oil or gas is produced from a stripper well, a stripper incentive well, from a well initially drilled before 1999 or after, from a well newly drilled within the last year or 18 months, and whether the interest being taxed is the working interest or the royalty interest. The Board of Oil and Gas Conservation imposes an additional privilege and license (P & L) tax on all oil and natural gas tax rates. Starting October 2006 as set by the Board, the P&L tax rate is 0.09 percent. HB 758, enacted by the 2005 legislature, allows an additional tax rate of 0.21 percent to generate revenue for local impacts for local governments. The two taxes may not exceed 0.3 percent. The following table shows tax rate percentages for each type of pre-1999 oil and post-1999 oil, excluding the P & L tax and the new Local Impact tax. The quarterly tax rates on stripper production and on incremental production are lower than that for regular production unless the price of West Texas Intermediate averages above \$30 for the quarter. Similarly, the quarterly tax rate for stripper well exemption production (1-3 barrels a day) is lower than that for regular production unless the price of West Texas Intermediate averages above \$38 for the quarter.

<b>Oil Tax Rates</b>	
<b>15-36-304(5)</b>	
<b>Working Interest</b>	
<b>Primary recovery production</b>	
First 12 months of qualifying production	0.5%
After 12 months:	
pre-1999 wells	12.5%
post-1999 wells	9.0%
<b>Stripper oil production (&gt;3 and &lt; 15 barrels/day if oil&lt;\$30)</b>	
1 through 10 barrels a day production	5.5%
>10 through 14 barrels a day production	9.0%
<b>Stripper oil production (&gt;3 and &lt; 15 barrels/day if oil&gt;=\$30) *</b>	
<b>Stripper wells (3 barrels or less/day)</b>	
Stripper well exemption production (if oil <\$38)	0.5%
Stripper well bonus production (if oil >=\$38)	6.0%
<b>Horizontally completed well production</b>	
First 18 months of qualifying production	0.5%
After 18 months	
pre-1999 wells	12.5%
post-1999 wells	9.0%
<b>Incremental production (if oil &lt;\$30/barrel)</b>	
New or expanded secondary recovery production	8.5%
New or expanded tertiary production	5.8%
<b>Incremental production (if oil &gt;=\$30/barrel)</b>	
Pre-1999 wells	12.5%
Post-1999 wells	9.0%
<b>Horizontally recompleted well</b>	
First 18 months	5.5%
After 18 months	
pre-1999 wells	12.5%
post-1999 wells	9.0%
<b>Nonworking Interest</b>	
	14.8%
* No stripper tax rate. Taxed at primary recovery rates. See 15-36-303(22a)	

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# Legislative Fiscal Division

## Revenue Estimate Profile

### Oil and Natural Gas Production Tax

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<b>Natural Gas Tax Rates</b>	
<b>15-36-304(2)</b>	
<b><u>Working Interest</u></b>	
<b>Qualified production</b>	
First 12 months	0.5%
After 12 months	
pre-1999	14.8%
post-1999	9.0%
<b>Stripper natural gas pre-1999 wells</b>	
	11.0%
<b>Horizontally completed well production</b>	
First 18 months of qualifying production	0.5%
After 18 months	9.0%
<b><u>Nonworking Interest</u></b>	
	14.8%

**Distribution:** Once the oil and natural gas production taxes have been collected, the revenue is first distributed based on the amounts collected from the P & L and Local Impact taxes. The amounts from the P & L tax is distributed to the: 1) Board of Oil and Gas Conservation; and 2) the Legislative Services Division - \$50,000 only in the 2007 biennium. The amounts from the Local Impact tax are distributed to the oil, gas, and coal natural resource state special revenue account. The amounts received by Board and the oil, gas, and coal natural resource account vary based on a sliding scale based on the P & L tax set by the Board. Counties producing oil receive the next share of total revenue with each county having its own distribution percentage of total revenue, including the revenue generated by the P & L and Local Impact taxes. The remainder of the revenue is distributed to other state accounts in the following manner:

**Fiscal 2004 through Fiscal 2011**

- Coal bed methane account – 1.23%
- Reclamation and development account – 2.95%
- Orphan share account – 2.95%
- University system 6 mill levy account – 2.65%
- General fund – the remainder (90.22%)

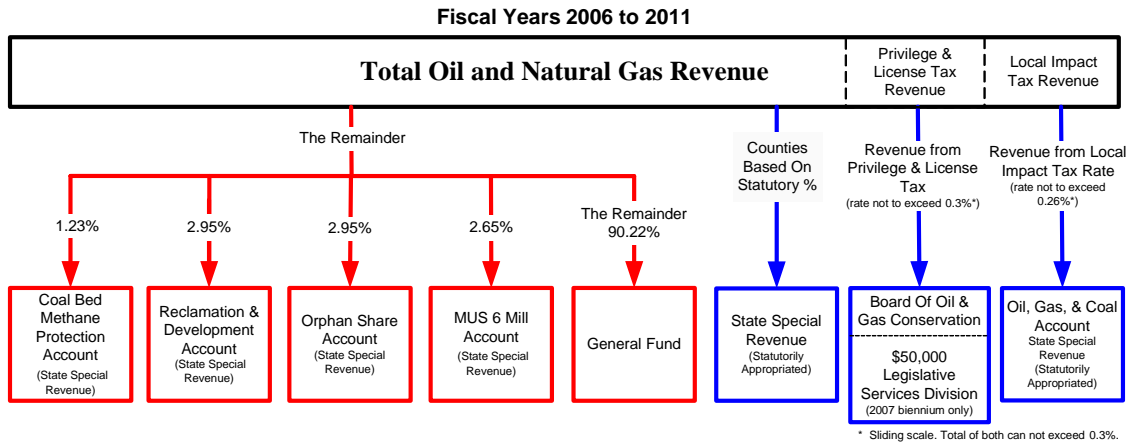
The distributions of county shares and the amount of oil and natural gas production tax revenue deposited in the oil, gas, and coal natural resource account are statutorily appropriated and are based on the statutorily set percentages for each county.

# Legislative Fiscal Division

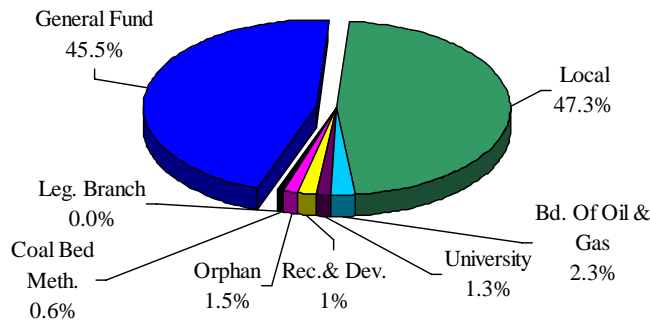
## Revenue Estimate Profile

### Oil and Natural Gas Production Tax

Distribution Chart:



**Oil & Natural Gas Production  
Based on Fiscal 2006 Actual Amounts**



Because the exact distribution of oil & natural gas revenue will vary depending on various factors, the chart only reflects fiscal 2006 actual distributions. Please see the table above for exact distribution percentages.

**Collection Frequency:** Quarterly: The oil and natural gas production tax is due 60 days after the end of the production quarter.

**% of Total General Fund Revenue:**

- FY 2004 – 2.99%
- FY 2005 – 4.09%
- FY 2006 – 5.42%

**Revenue Estimate Methodology:**

The estimate for oil and natural gas revenue is derived from estimating the production and price from which value can be obtained. Specific statutory tax rates are used for the types of oil and natural gas that are taxed differently.

Data

Data from the Board of Oil and Gas Conservation is used extensively to isolate monthly historical production of oil and natural gas by field and by individual well. Global Insight provides future estimates of West Texas Intermediate crude and Henry Hub natural gas prices. Production, price, value, and revenue collections, by oil type, are provided on a quarterly basis by the Department of Revenue.

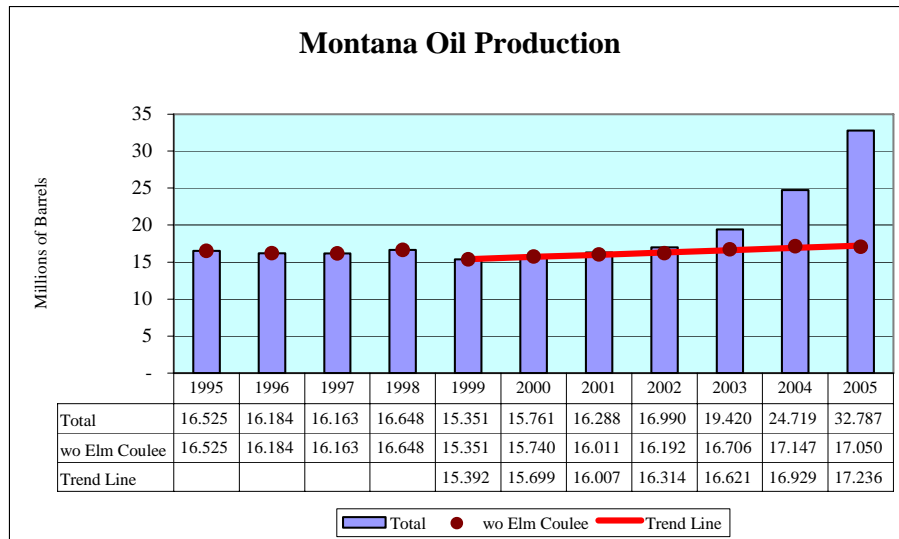
# Legislative Fiscal Division

## Revenue Estimate Profile

### Oil and Natural Gas Production Tax

#### Oil Analysis

- Production - The estimate is developed on a quarterly basis with production from the Elm Coulee field separate from all other production. Analysis of the field data indicate that the majority of the increased production is from the relatively new Elm Coulee field in Richland County. The importance of this one field can be seen in the figure below.



Industry personnel state that this field has yet to be fully defined. When it is, fewer new wells will be spudded (drilling initiated). Existing wells will then follow a production decline curve unique to the characteristics of the field. Fields tapped through horizontal drilling, such as Elm Coulee, tend to be depleted more rapidly than those tapped vertically. 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 wells in the Elm Coulee field 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 are 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 is complex, but it needs to be modeled to ensure accurate estimates.

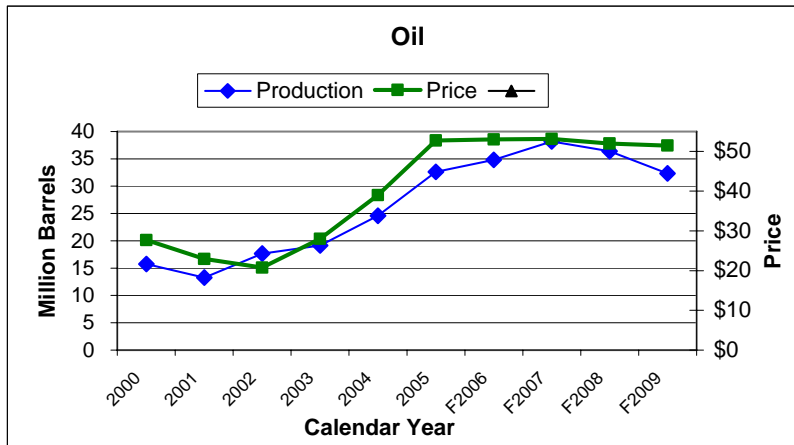
Production from all other fields is also estimated on a quarterly basis and by the different taxation types. For each quarter, the estimate is derived by multiplying the same quarter of the previous year by the ratio of the results of a regression analysis for the same quarter of the current and the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

- Price – The price for each quarter is estimated by adjusting the Global Insight West Texas Intermediate crude price for that quarter by the ratio of a previous quarter's Montana price to the Global Insight price.

# Legislative Fiscal Division

## Revenue Estimate Profile

### Oil and Natural Gas Production Tax



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

#### Natural Gas Analysis

- **Production** - The natural gas industry in Montana has also been undergoing major changes. Improved techniques have allowed new fields to be developed and old fields to be more productive. Data from the Board of Oil and Gas Conservation indicate that the majority of increased production is from the relatively new CX field in Big Horn County and the Elm Coulee field in Richland County. Other fields that exhibit increasing production are the Bowdoin and Cedar Creek fields, the second and third largest producing fields, respectively. Since its peak production in 1999, production from Tiger Ridge, the largest producing field, has declined. By excluding production from fields with increasing production, it was found that production from the remaining fields has been decreasing since 2001. Of the fields with increasing production, most is coming from the CX and Elm Coulee fields. The fact that the CX field has been in production for only seven of the last 20 years, yet ranks sixth in total production out of the major fields that have been producing for the last 20 years, illustrates the importance of this field. A similar analysis to that used for oil can also be used for natural gas from the CX and Elm Coulee fields. As with oil, the development of a normalized production curve from individual wells eliminates the difficulty of having different starting time for each well by averaging each well's production from a common point in time. The result is a curve that represents the average production of wells in the CX and Elm Coulee fields by month of production. With the equation of this curve, future production can be estimated.

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

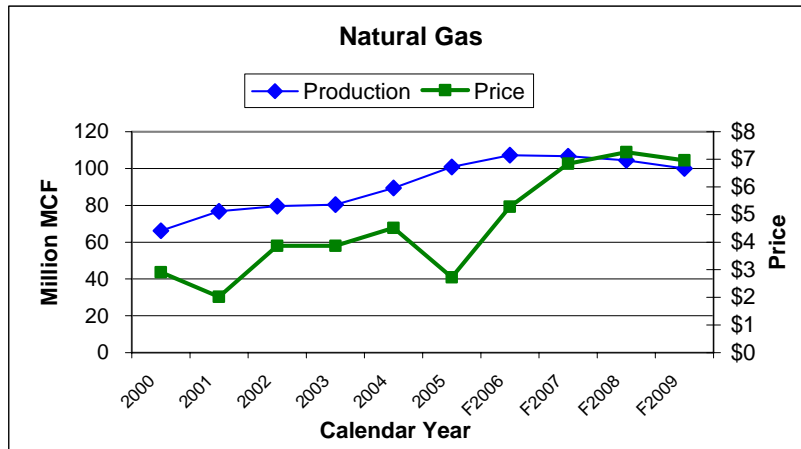
- **Price** - A similar method to that used for oil is used to estimate natural gas prices on a quarterly basis and by tax type of production. However, the Global Insight Henry Hub natural gas future prices are used to drive changes in the Montana price.



# Legislative Fiscal Division

## Revenue Estimate Profile

### Oil and Natural Gas Production Tax

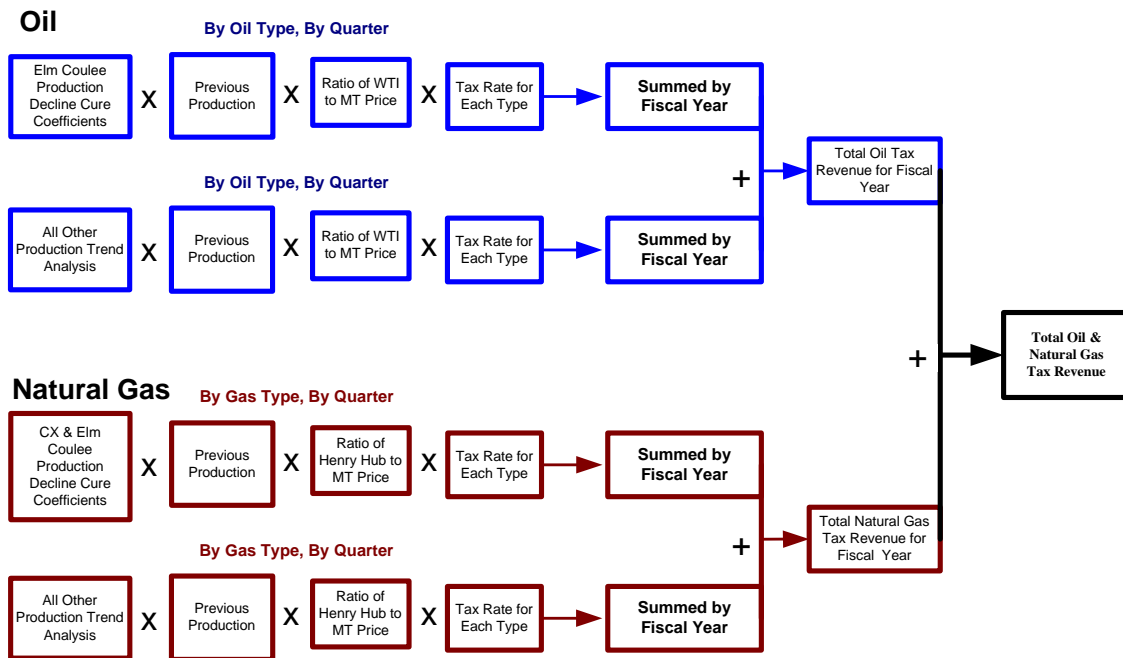


Once production and prices have been estimated, the value can be calculated by the product of the two. The quarterly value of each tax type is then multiplied by the applicable tax rate to obtain the revenue. The sum of the revenue from all tax types for each fiscal year determines the natural gas revenue estimate.

#### Adjustments and Distribution

Once the oil and natural gas estimates have been summed, the distribution formula is applied with the amounts to the Board of Oil and Gas and to local governments distributed first and the remainder subject to statutory percentages.

#### Forecast Methodology:



# Legislative Fiscal Division

## Revenue Estimate Profile

### Oil and Natural Gas Production Tax

#### Revenue Estimate Assumptions:

	<u>t</u>	<u>Total Tax</u>	<u>GF Tax</u>	<u>GF Allocation</u>	<u>Audits</u>	<u>Total Tax</u>	<u>Total Tax</u>
	<u>Fiscal</u>	<u>Millions</u>	<u>Millions</u>	<u>Percent</u>	<u>Millions</u>	<u>Oil</u>	<u>Gas</u>
						<u>Millions</u>	<u>Millions</u>
Actual	2000	43.772950	11.362741	0.259584			
Actual	2001	92.395790	25.791723	0.279144			
Actual	2002	50.303610	12.902439	0.256491			
Actual	2003	73.389376	29.086038	0.396325	2.436178		
Actual	2004	92.676050	41.323718	0.445894	1.687625		
Actual	2005	137.754331	62.625939	0.454620	1.127243		
Actual	2006	203.681078	92.562800	0.454450	1.428545		
Forecast	2007	195.430000	86.240849	0.441288	0.000000	148.911000	46.519000
Forecast	2008	228.334000	101.224485	0.443318	0.000000	166.609000	61.725000
Forecast	2009	228.477000	101.287880	0.443318	0.000000	168.190000	60.287000

<u>Oil</u>	<u>t</u>	<u>Barrels</u>	<u>Price</u>	<u>Gross Value</u>	<u>Effective</u>
	<u>Fiscal</u>	<u>Millions</u>	<u>Per Barrel</u>	<u>Millions</u>	<u>Tax Rate</u>
Actual	2000				
Actual	2001				
Actual	2002				
Actual	2003				
Actual	2004				
Actual	2005				
Actual	2006	33.700000	56.569941	1906.407000	0.074541
Forecast	2007	36.588000	51.596562	1887.815000	0.078880
Forecast	2008	38.325000	52.714338	2020.277000	0.082468
Forecast	2009	34.136000	51.654236	1763.269000	0.095385

# Legislative Fiscal Division

## Revenue Estimate Profile

### Oil and Natural Gas Production Tax

<u>Gas</u>	<u>t</u>	<u>MCF's</u>	<u>Price</u>	<u>Gross Value</u>	<u>Effective</u>
	<u>Fiscal</u>	<u>Millions</u>	<u>Per MCF</u>	<u>Millions</u>	<u>Tax Rate</u>
Actual	2000				
Actual	2001				
Actual	2002				
Actual	2003				
Actual	2004				
Actual	2005				
Actual	2006	107.934000	6.774964	731.249000	0.078025
Forecast	2007	106.561000	5.560252	592.506000	0.078512
Forecast	2008	106.074000	7.307342	775.119000	0.079633
Forecast	2009	102.366000	7.120392	728.886000	0.082711

<u>Oil</u>	<u>t</u>	<u>Barrels</u>	<u>Price</u>	<u>Gross Value</u>	<u>Effective</u>	<u>Total Tax</u>
	<u>Cal</u>	<u>Millions</u>	<u>Per Barrel</u>	<u>Millions</u>	<u>Tax Rate</u>	<u>Millions</u>
Actual	2000	15.770217	27.674692	436.435898	0.114821	48.291803
Actual	2001	13.275582	22.967563	304.907766	0.102083	35.876151
Actual	2002	17.653122	20.779054	366.815175	0.100083	37.755024
Actual	2003	19.177655	28.025523	537.463811	0.095372	50.001667
Actual	2004	24.559083	38.992068	957.609434	0.090422	76.502684
Actual	2005	32.631373	52.762097	1721.699667	0.084783	122.494911
Actual	2006	34.827000	53.016769	1846.415000	0.076733	141.681000
Forecast	2007	38.159000	53.147960	2028.073000	0.079964	162.173000
Forecast	2008	36.425000	51.978970	1893.334000	0.088286	167.155000
Forecast	2009	32.354000	51.452185	1664.684000	0.100336	167.028000

<u>Gas</u>	<u>t</u>	<u>MCF's</u>	<u>Price</u>	<u>Gross Value</u>	<u>Effective</u>	<u>Total Tax</u>
	<u>Cal</u>	<u>Millions</u>	<u>Per MCF</u>	<u>Millions</u>	<u>Tax Rate</u>	<u>Millions</u>
Actual	2000	66.163277	2.907561	192.373764	0.106032	19.395351
Actual	2001	76.713082	2.017410	154.761739	0.104020	24.266868
Actual	2002	79.531692	3.866558	307.513900	0.104259	17.289646
Actual	2003	80.327001	3.866558	310.589008	0.099219	30.259247
Actual	2004	89.464491	4.516738	404.087668	0.093759	36.881048
Actual	2005	100.744115	2.724589	274.486307	0.090027	23.838515
Actual	2006	107.258000	5.285144	566.873975	0.077324	43.833000
Forecast	2007	106.687000	6.845829	730.360959	0.078914	57.636000
Forecast	2008	104.476000	7.261074	758.607967	0.081008	61.453000
Forecast	2009	99.981000	6.960783	695.946045	0.084728	58.966000

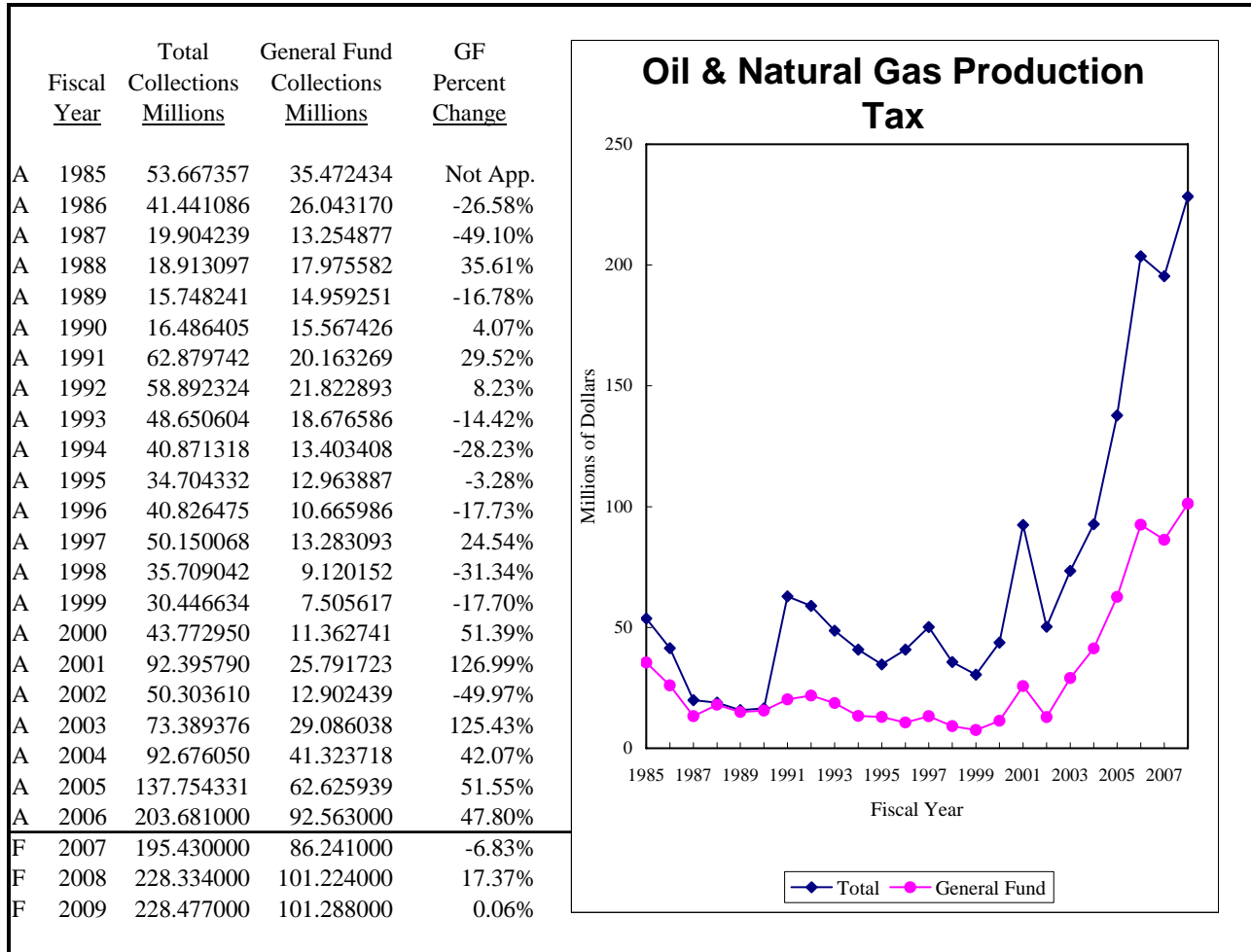
Total Tax = Barrels \* Price \* Tax Rate + MCF's \* Price \* Tax Rate + Audits  
 GF Rev = Total Tax \* GF Allocation + Audits

# Legislative Fiscal Division

## Revenue Estimate Profile

### Oil and Natural Gas Production Tax

#### Revenue Projection:



**Data Source(s):** SABHRS, Department of Revenue, Global Insight, *Wall Street Journal*

**Contacts:** Department of Revenue, Board of Oil & Gas

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# Legislative Fiscal Division

## Revenue Estimate Profile Resource Indemnity Tax

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**Revenue Description:** The state imposes a resource indemnity and ground water assessment (RIGWA) tax on the gross value of coal, as well as most minerals, but not metals, oil, and natural gas. Prior to July 1, 2002 when the Governor by executive order certified to the Secretary of State that the resource indemnity trust balance had reached \$100 million, a portion of oil and natural gas taxes had been distributed under the same methodology as the RIGWA tax. Once the RIT balance reached \$100 million, this portion of oil and natural gas taxes no longer has a connection to the RIGWA tax. The RIGWA tax on all other production is specific to each resource as described below.

### Statutory Reference:

Tax Rate (MCA) – 15-38-104

Tax Distribution (MCA) – 15-38-106, 39-10-106

Date Due from metal producers – March 31st following the end of the calendar year (15-38-105, 15-38-106(1))

Date Due from mineral producers – 60 days following the end of the calendar year (15-38-105, 15-38-106(1))

**Applicable Tax Rate(s):** The applicable rates are as follows:

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 metals and excluding oil and natural gas because 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

**Distribution:** Beginning fiscal 2004, the amount needed to cover debt service on CERCLA bonds (after amounts transferred from the CERCLA cost recovery account) is deposited to the CERCLA match debt service account. Through fiscal 2007, the remainder of RIGWA tax proceeds is distributed in the following order:

1. \$366,000 each year to the ground water assessment account
2. 50.0% of the remainder to the reclamation and development grants account
3. the amount needed to maintain a \$150,000 balance in the natural resource worker scholarship account (enacted by the 2001 legislature in Senate Bill 322 and terminates the end of fiscal 2007)
4. the remainder to the orphan share account (terminates the end of fiscal 2007)

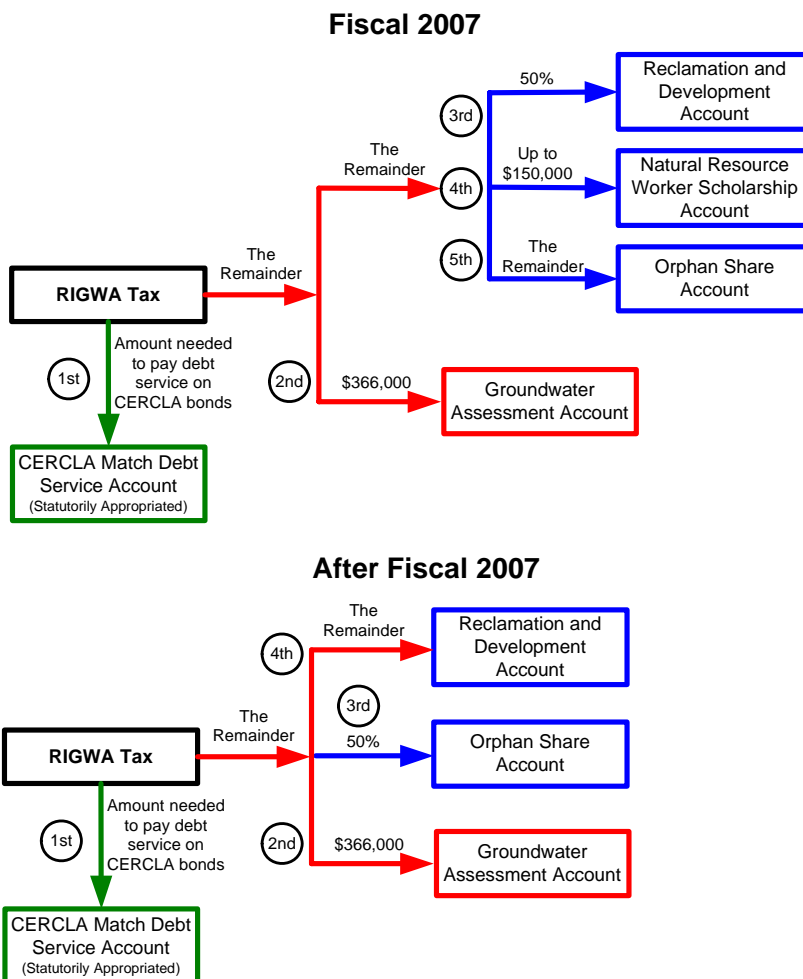
After Fiscal 2007, the remainder of RIGWA tax proceeds is distributed in the following order:

1. \$366,000 each year to the ground water assessment account
2. 50.0% of the remainder to the orphan share account
3. the remainder to the reclamation and development grants account

# Legislative Fiscal Division

## Revenue Estimate Profile Resource Indemnity Tax

### Distribution Chart:



**Collection Frequency:** Annually - the tax is paid on or before March 31 of the year following the production year.

**% of Total General Fund Revenue:** N/A

### Revenue Estimate Methodology:

#### Data

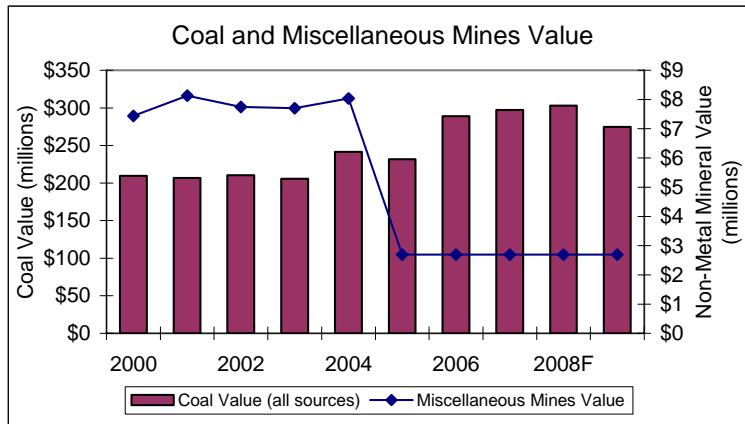
The data used to estimate the resource indemnity and groundwater assessment (RIGWA) tax is obtained from the coal severance tax source, the property tax source, and the state accounting system (SABHRS). No adjustments are required on the raw data in preparation for analysis.

#### Analysis

The RIGWA tax is imposed on the gross taxable value from the production of coal and miscellaneous mines. Before fiscal 2002, when Governor Martz certified that the resource indemnity trust had reached the required principal amount of \$100 million, oil and natural gas production was also taxed under RIGWA, but the oil and natural gas component of the tax ended when the trust reached the limit. The gross value estimates prepared for the coal severance tax and class 1, miscellaneous mines, property tax are used in the estimate for the RIGWA tax.

# Legislative Fiscal Division

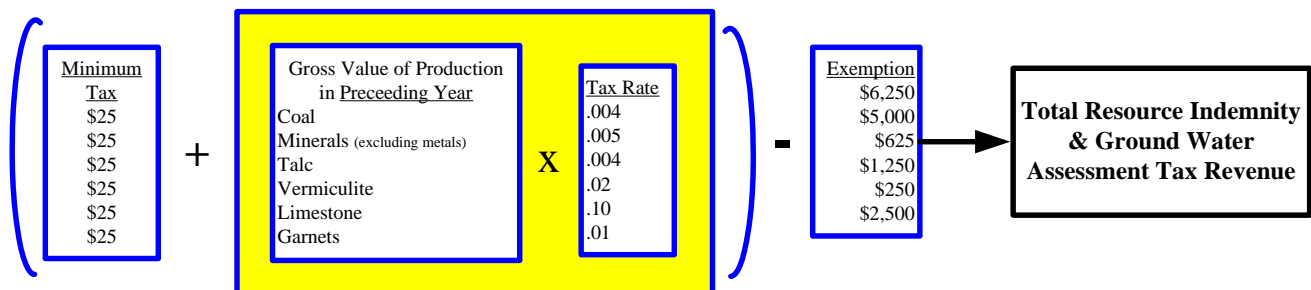
## Revenue Estimate Profile Resource Indemnity Tax



The future taxable value of coal, produced by all mines, is estimated in the coal severance tax source. As seen in the figure above, the value of coal produced in Montana is expected to increase slightly in fiscal 2007 and 2008, but is expected to decline in fiscal 2009. The estimate of coal value is \$297.0 million, \$302.9 million, and \$274.6 million in fiscal 2007 through fiscal 2009, respectively. The future taxable value of miscellaneous mines production is estimated in the class 1 property tax. The figure above shows that the value of miscellaneous mine production declined significantly between fiscal 2004 and 2005. SB 276, approved in the 2005 session and effective in fiscal 2005, eliminated the taxation of bentonite production as class 1 property, causing a shift in the value of miscellaneous mines seen in the figure above. The reduction was the result of the decline in miscellaneous mine production value and is not expected to change over the 2009 biennium. The estimate of the value of miscellaneous mines production is \$2.7 million for each fiscal year of the biennium. Further information on the estimates for the value of coal and miscellaneous mines production value can be seen in the methodology descriptions of the sources.

To develop the estimates for RIGWA tax collections, the tax rates are applied to the production value of each of the components, coal and miscellaneous mines. Finally the taxes estimated for the two components are summed to produce the total estimate of the RIGWA tax.

### Forecast Methodology:



# Legislative Fiscal Division

## Revenue Estimate Profile

### Resource Indemnity Tax

#### Revenue Estimate Assumptions:

	t	Total Tax	GF Tax	Oil	Natural Gas	Coal	Metals	Other
	<u>Fiscal</u>	<u>Millions</u>	<u>Millions</u>	<u>Millions</u>	<u>Millions</u>	<u>Millions</u>	<u>Millions</u>	<u>Millions</u>
Actual	2000	6.793459	0.000000	0.851792	0.159668	1.034506	0.000000	0.288596
Actual	2001	2.744480	0.000000	1.667407	0.000000	0.951681	0.001862	0.123529
Actual	2002	2.200785	0.000000	0.976477	0.000000	0.998816	0.000460	0.225031
Actual	2003	1.225610	0.000000	0.000000	0.000000	1.005490	0.000000	0.220121
Actual	2004	1.250528	0.000000	0.001614	0.000000	0.965537	0.000000	0.284991
Actual	2005	1.436378	0.000000	0.000000	0.000000	1.118400	0.000000	0.317978
Actual	2006	1.456411	0.000000	0.000000	0.000000	1.086862	0.001916	0.367633
Forecast	2007	1.307000	0.000000	0.000000	0.000000	1.171672	0.000000	0.135000
Forecast	2008	1.335000	0.000000	0.000000	0.000000	1.199700	0.000000	0.135000
Forecast	2009	1.290000	0.000000	0.000000	0.000000	1.154994	0.000000	0.135000

	t	Trust Other	Trust Metal	Renewable	Ground	Reclamation	Orphan	Trust Balance
	<u>Fiscal</u>	<u>Millions</u>	<u>Millions</u>	<u>Millions</u>	<u>Millions</u>	<u>Millions</u>	<u>Millions</u>	<u>Millions</u>
Actual	2000	3.391472	0.000000	0.000000	0.521579	1.440204	1.440204	96.404163
Actual	2001	2.205880	0.000000	0.000000	0.300000	0.119300	0.119300	100.373547
Actual	2002	1.588631	0.000000	0.000000	0.300000	0.156077	0.156077	102.065653
Actual	2003	0.000000	0.000000	0.000000	0.366000	0.429805	0.279805	100.000965
Actual	2004	-0.000188	0.000000	0.000000	0.366000	0.442358	0.442358	100.002390
Actual	2005	0.252454	0.000000	0.000000	0.113546	0.535189	0.441681	100.254844
Actual	2006	0.000000	0.000000	0.000000	0.366000	0.451163	0.451162	100.023109
Forecast	2007	0.000000	0.000000	0.000000	0.366000	0.401000	0.401150	100.023109
Forecast	2008	0.000000	0.000000	0.000000	0.366000	0.336422	0.336422	100.023109
Forecast	2009	0.000000	0.000000	0.000000	0.366000	0.140179	0.140180	100.023109

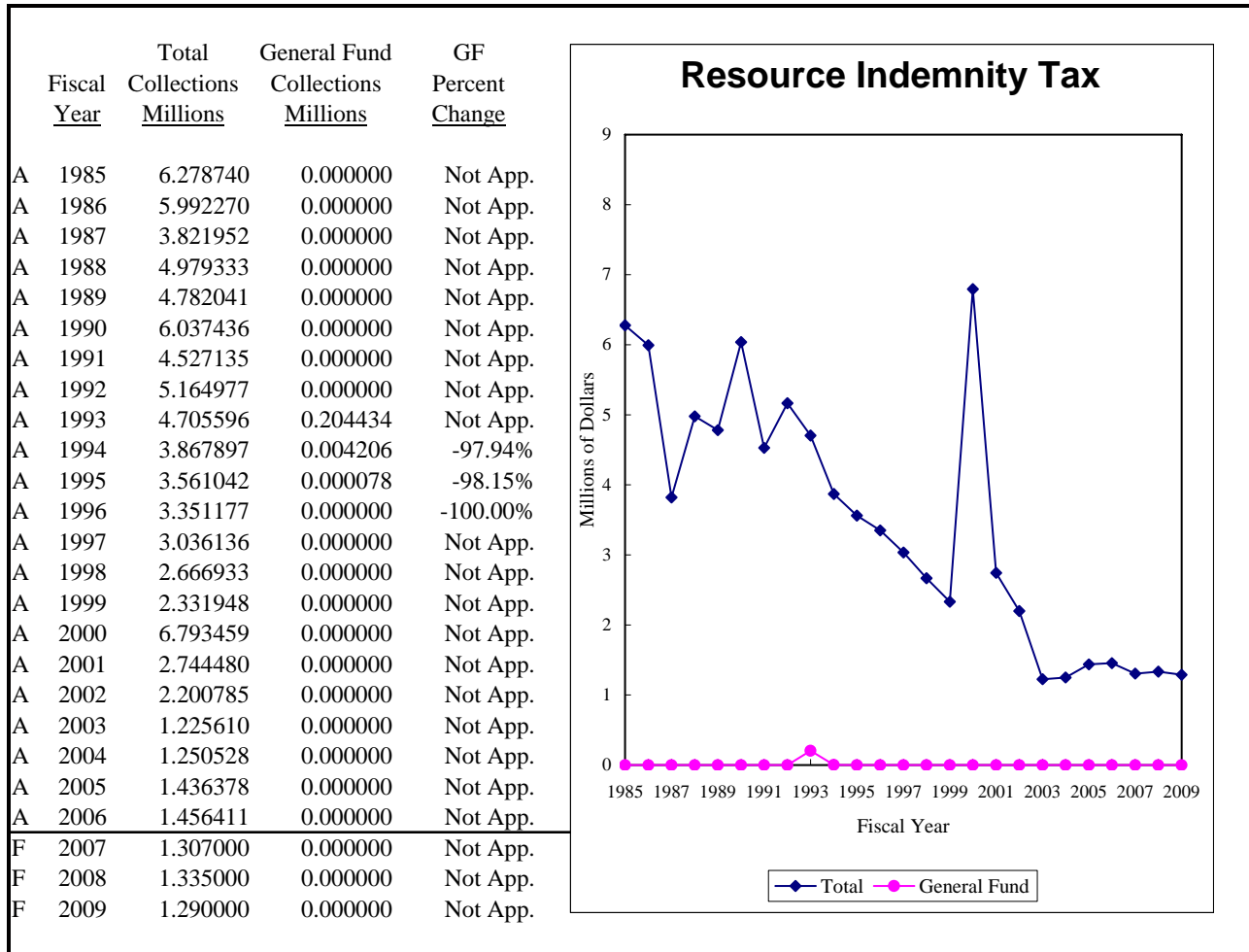
Total Tax = Coal + Other



# Legislative Fiscal Division

## Revenue Estimate Profile Resource Indemnity Tax

### Revenue Projection:



**Data Source(s):** SABHRS, Department of Revenue, Surveys of Various Companies

**Contacts:** Department of Revenue

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# Legislative Fiscal Division

## Revenue Estimate Profile

### US Mineral Royalty

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**Revenue Description:** Under the federal Mineral Lands Leasing Act (30 USC, Section 191), 50.0 percent of all sales, bonuses, royalties, and rentals received from federal lands in Montana must be paid to the state. The money is to be used as the legislature may direct, 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:**

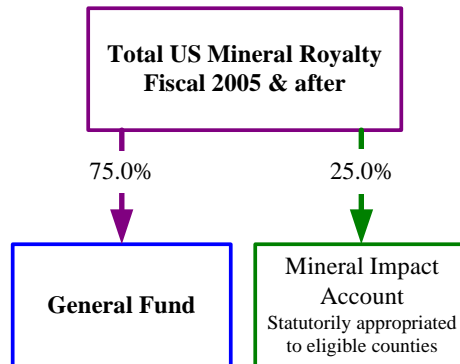
Tax Rate – NA

Distribution – 17-3-240, MCA

**Applicable Tax Rate(s):** N/A

**Distribution:** With the enactment of Senate Bill 212 by the 2005 legislature, receipts are deposited 75 percent to the general fund and 25 percent 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.

Distribution Chart:



**Collection Frequency:** Monthly

**% of Total General Fund Revenue:**

FY 2004 – 2.08%

FY 2005 – 1.78%

FY 2006 – 1.72%

**Revenue Estimate Methodology:**

The estimate for Montana’s share of mineral royalties and other mineral related income from its federal lands is derived from estimating each of the major sources of revenue, applying the applicable royalty rate for each, and multiplying by Montana’s share of the revenue.

Data

Data from which to base estimates for this revenues source have been sparse and incomplete. Up until October 2001, the Mineral Management Service of the U.S. Department of Interior had provided data used to make the estimate. However, lawsuits and court orders have stifled the flow of data since then. Only recently has yearly data been available for federal fiscal years through 2005. The current estimates rely on this data, future prices of oil and natural gas, and coal production on federal land obtained from a survey of Montana’s coal companies.

# Legislative Fiscal Division

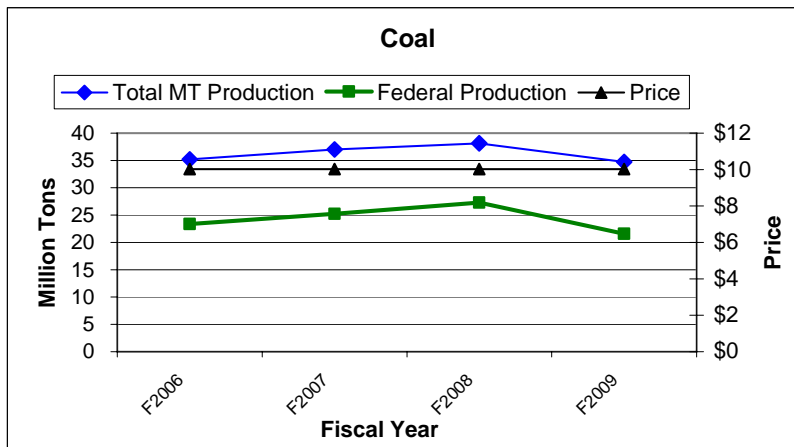
## Revenue Estimate Profile

### US Mineral Royalty

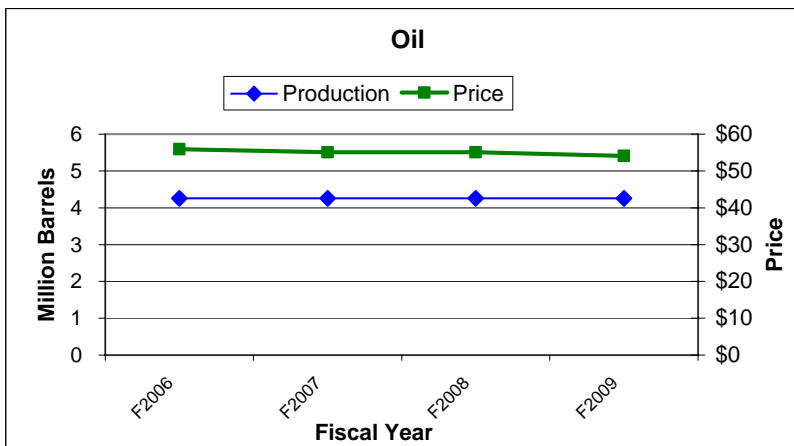
Analysis

The estimate is derived by first estimating the individual revenue components. The estimate for mineral royalties is obtained by multiplying estimates for production, price, the applicable royalty rate, and Montana's percentage share together.

- Coal – Calendar year production is estimated by multiplying the production reported by each company on the coal survey by the percent of production each anticipated to be from federal lands. Since no growth in prices was assumed for the coal severance tax revenue source, price is determined by averaging the Montana contract sales price in calendar 2005 for all coal companies and carrying that price into all the estimated years. Production multiplied by price yields value. The value is then multiplied by the royalty rate that is estimated by dividing the calendar year 2005 royalty by the value for that year. This royalty rate is used for all estimated years. Of the total calculated royalty, Montana receives a portion. Although the state portion is 50 percent, actual receipts from calendar year 2005 indicate an actual rate of 49.3 percent. This rate is used for all estimated years.



- Oil - Calendar year production is estimated by carrying the 2005 actual amounts into all of the estimated years since there was almost no growth in production between 2004 and 2005. Yearly prices are determined by first averaging quarterly future prices of West Texas Intermediate crude as forecast by Global Insight, and adjusted for the federal fiscal year, for the current and previous year. The current year price is then multiplied by the ratio of the previous year's price to the previous year's estimated (or actual) price. Production multiplied by price yields value. The value is then multiplied by the royalty rate that is estimated by dividing the calendar year 2005 royalty by the value for that year. This royalty rate is used for all estimated years. Of the total calculated royalty, Montana receives a portion. Although the state portion is 50 percent, actual receipts from calendar year 2005 indicate an actual rate of 37.5 percent. This rate is used for all estimated years.



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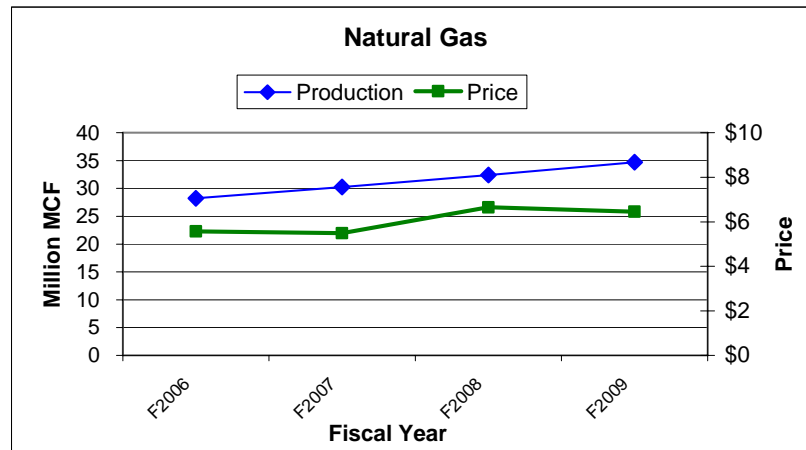
# Legislative Fiscal Division

## Revenue Estimate Profile

### US Mineral Royalty

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- Natural Gas – Calendar year production is estimated by multiply the previous year’s production by the growth rate of the two previous years. Yearly prices are determined by first averaging quarterly future prices of Henry Hub natural gas as forecast by Global Insight, and adjusted for the federal fiscal year, for the current and previous year. The current year price is then multiplied by the ratio of the previous year’s price to the previous year’s estimated (or actual) price. Production multiplied by price yields value. The value is then multiplied by the royalty rate that is estimated by dividing the calendar year 2005 royalty by the value for that year. This royalty rate is used for all the estimated years. Of the total calculated royalty, Montana receives a portion. Although the state portion is 50 percent, actual receipts from calendar year 2005 indicate an actual rate of 40.1 percent. This rate is used for all estimated years.



- Natural Gas Liquid - Calendar year production is estimated by carrying the 2005 actual amounts into all of the estimated years. Yearly prices are determined by first averaging quarterly future prices of Henry Hub natural gas as forecast by Global Insight, and adjusted for the federal fiscal year, for the current and previous year. The current year price is then multiplied by the ratio of the previous year’s price to the previous year’s estimated (or actual) price. Production multiplied by price yields value. The value is then multiplied by the royalty rate that is estimated by dividing the calendar year 2005 royalty by the value for that year. This royalty rate is used for all the estimated years. Of the total calculated royalty, Montana receives a portion. Although the state portion is 50 percent, actual receipts from calendar year 2005 indicate an actual rate of 45.8 percent. This rate is used for all estimated years.
- Methane - Calendar year production is estimated by multiply the previous year’s production by the growth rate of the two previous years. Yearly prices are determined by first averaging quarterly future prices of Henry Hub natural gas as forecast by Global Insight, and adjusted for the federal fiscal year, for the current and previous year. The current year price is then multiplied by the ratio of the previous year’s price to the previous year’s estimated (or actual) price. Production multiplied by price yields value. The value is then multiplied by the royalty rate that is estimated by dividing the calendar year 2005 royalty by the value for that year. This royalty rate is used for all the estimated years. Of the total calculated royalty, Montana receives a portion. Although the state portion is 50 percent, actual receipts from calendar year 2005 indicate an actual rate of 44.0 percent. This rate is used for all estimated years.
- Other Royalty – Revenues and royalty rates are estimated by carrying the 2005 actual amounts into all of the estimated years.
- Rents, Bonuses, and Other – The average revenue of calendar 2001 to 2005 with the highest and lowest amounts excluded is carried forward into all of the estimated years. To obtain Montana’s share, these amounts are adjusted by the ratio of the last known Montana’s amount to the last known total revenue.

#### Adjustments and Distribution

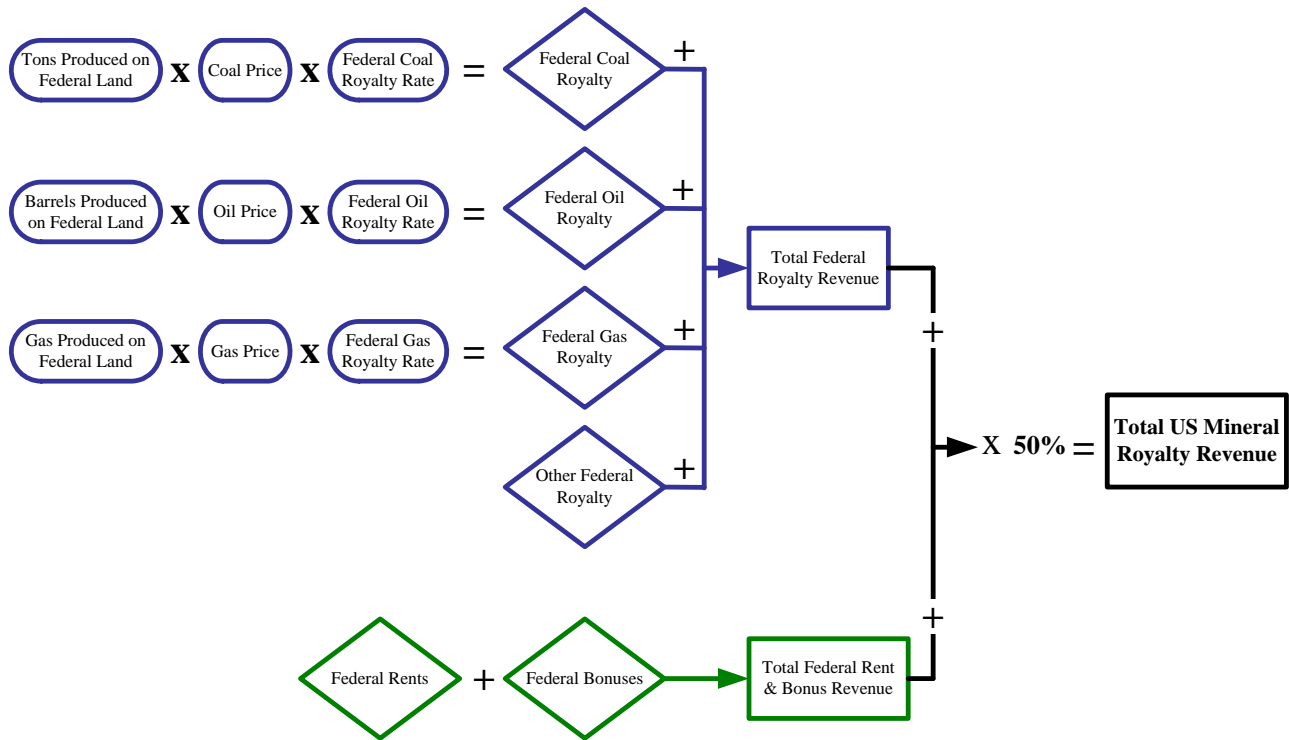
Since the estimates already include the adjustments to determine Montana’s share, the estimated revenue is distributed 75 percent to the general fund and 25 percent to the state special revenue fund.

# Legislative Fiscal Division

## Revenue Estimate Profile

### US Mineral Royalty

#### Forecast Methodology:



#### Revenue Estimate Assumptions:

	t	Total Rev.	GF Rev.	One-Time	Mineral	GF Allocation
	Fiscal	Millions	Millions	Settlement	Impact	Percent
				Millions	Millions	
Actual	2000	19.242954	19.242954			
Actual	2001	31.007874	31.007874	6.038000		
Actual	2002	19.772193	19.772193	0.000000		
Actual	2003	25.989828	25.989828	0.000000		
Actual	2004	28.736303	28.736303	0.000000		
Actual	2005	36.391633	27.293725	0.000000	9.097908	75.00%
Actual	2006	39.071469	29.303602	0.000000	9.767867	75.00%
Forecast	2007	38.240000	28.680000	0.000000	9.560000	75.00%
Forecast	2008	42.258000	31.694000	0.000000	10.565000	75.00%
Forecast	2009	39.200000	29.400000	0.000000	9.800000	75.00%

# Legislative Fiscal Division

## Revenue Estimate Profile

### US Mineral Royalty

	<u>t</u>	<u>Oil</u>	<u>Coal</u>	<u>Gas</u>	<u>Oil</u>	<u>Coal</u>	<u>Gas</u>
	<u>Cal</u>	<u>Barrels</u>	<u>Tons</u>	<u>MCF's</u>	<u>Price</u>	<u>Price</u>	<u>Price</u>
Actual	2000						
Actual	2001						
Actual	2002	3.862811	33.491273	20.391778	20.655800	8.794516	2.417834
Actual	2003	3.974831	27.206486	23.003369	27.508280	11.709884	3.445458
Actual	2004	4.295711	29.780631	24.537832	31.980751	10.053941	4.355901
Actual	2005	4.255590	27.398404	26.302336	45.324907	10.021523	4.912718
Actual	2006	4.255590	23.358000	28.193725	55.880333	10.021523	5.565376
Forecast	2007	4.255590	25.236000	30.221123	55.086369	10.021523	5.488142
Forecast	2008	4.255590	27.270000	32.394310	55.049593	10.021523	6.654547
Forecast	2009	4.255590	21.604000	34.723770	54.100711	10.021523	6.451032

	<u>t</u>	<u>Oil</u>	<u>Coal</u>	<u>Gas</u>	<u>Oil</u>	<u>Coal</u>	<u>Gas</u>
	<u>Cal</u>	<u>Roy. Rate</u>	<u>Roy. Rate</u>	<u>Roy. Rate</u>	<u>Revenue</u>	<u>Revenue</u>	<u>Revenue</u>
Actual	2000						
Actual	2001						
Actual	2002	0.113443	0.116053	0.124149	9.051530	34.182163	6.121055
Actual	2003	0.113266	0.117664	0.123688	12.384542	37.485837	9.803198
Actual	2004	0.111631	0.114227	0.120545	15.335865	34.200945	12.884411
Actual	2005	0.114478	0.119807	0.119317	22.080910	32.895894	15.417717
Actual	2006	0.114478	0.119807	0.119317	27.223302	28.044750	18.721873
Forecast	2007	0.114478	0.119807	0.119317	26.836505	30.299568	19.789657
Forecast	2008	0.114478	0.119807	0.119317	26.818589	32.741687	25.721101
Forecast	2009	0.114478	0.119807	0.119317	26.356321	25.938812	26.727503

	<u>t</u>	<u>Other</u>	<u>Rent&amp;Bonus</u>	<u>Other</u>	<u>Total</u>	<u>State</u>	<u>State Share</u>
	<u>Cal</u>	<u>Royalty</u>	<u>Revenue</u>	<u>Revenue</u>	<u>Revenue</u>	<u>Share</u>	<u>Percent</u>
Actual	2000						
Actual	2001						
Actual	2002	0.680620	3.182765	0.293468	53.511601	22.328620	0.417267
Actual	2003	1.017980	7.105370	1.572410	69.369337	25.535373	0.368107
Actual	2004	0.505445	5.008854	1.800082	69.735602	30.294622	0.434421
Actual	2005	5.023805	4.869587	0.970906	81.258819	35.562306	0.437642
Actual	2006	5.521625	5.169048	0.945595	85.626193	36.774038	0.429472
Forecast	2007	5.664420	5.169048	0.945595	88.704793	38.239549	0.431088
Forecast	2008	6.557726	5.169048	0.945595	97.953746	42.257368	0.431401
Forecast	2009	6.684112	5.169048	0.945595	91.821391	39.199425	0.426910

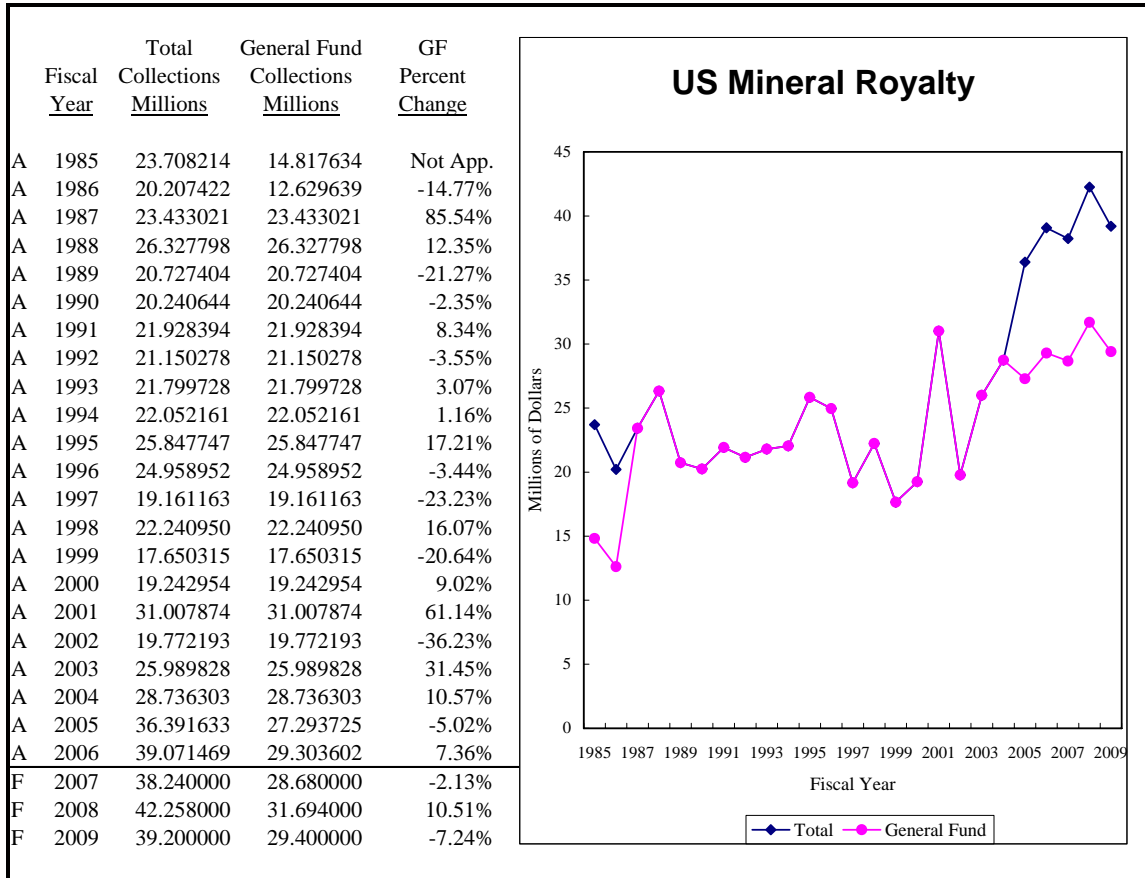
Total Rev. = Oil Barrels \* Oil Price \* Oil Roy. Rate + Coal Tons \* Coal Price \* Coal Roy. Rate +  
Gas MCF's \* Gas Price \* Gas Roy. Rate + Other Royalty + Rent&Bonus Revenue + Other Revenue  
GF Rev. = Total Rev \* GF Allocation

# Legislative Fiscal Division

## Revenue Estimate Profile

### US Mineral Royalty

#### Revenue Projection:



**Data Source(s):** SABHRS, Department of Revenue

**Contacts:** U.S. Minerals Management Service

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# Legislative Fiscal Division

## Revenue Estimate Profile

### Wholesale Energy Tax

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**Revenue Description:** The wholesale energy transaction tax, enacted by the 1999 legislature (HB 174 effective January 1, 2000) is imposed on the amount of electricity transmitted by a transmission services provider in the state.

**Statutory Reference:**

Tax Rate (MCA) – 15-72-104(1)

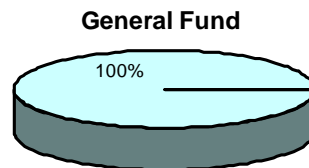
Tax Distribution (MCA) – 15-72-106(3)

Date Due – 30<sup>th</sup> day of the month following the end of the calendar quarter

**Applicable Tax Rate(s):** The tax rate of 0.015 cent is applied to the number of kilowatt hours transmitted. If the electricity is produced in-state and sold out-of-state, the taxpayer is the person(s) owning 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: 1) electricity that is transmitted through the state that is neither produced nor consumed in the state; 2) electricity generated in the state by an agency of the federal government for delivery outside the state; 3) electricity delivered to a distribution services provider that is a municipal utility or a rural electric cooperative which opts out of competition under HB 390 (1997 legislature); 4) electricity delivered to a purchaser that received its power directly from a transmission or distribution facility owned by an entity of the US government; 5) 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; 6) electricity that has been subject to the transmission tax in another state; and 7) a 5 percent line loss exemption for transmission of electricity produced in the state for delivery outside of the state.

**Distribution:** All proceeds are deposited into the general fund.

Distribution Chart:



**Collection Frequency:** Quarterly

**% of Total General Fund Revenue:**

FY 2004 – 0.24%

FY 2005 – 0.22%

FY 2006 – 0.22%

**Revenue Estimate Methodology:**

The wholesale energy transaction tax is applied to the number of kilowatt hours transmitted less five percent for line loss. The estimate for the tax revenue is derived by estimating the annual taxable kilowatt hours transmitted for each company and any company anticipated to be transmitting within the 3-year period in question. From these estimates, the tax rate is applied. Since all kilowatt hours transmitted is reported on a calendar year basis, the resulting calendar year estimates are converted into fiscal year estimates.

Data

All energy transmitting companies are surveyed for anticipated kilowatt hours transmitted, anticipated new transmissions, anticipated downtime or reduced transmission, and a percentage split between in-state and out-of-state transmissions. Data from quarterly reports produced by DOR provide a history of in-state and out-of-state kilowatt hours transmitted by each individual



# Legislative Fiscal Division

## Revenue Estimate Profile

### Wholesale Energy Tax

company.

#### Analysis

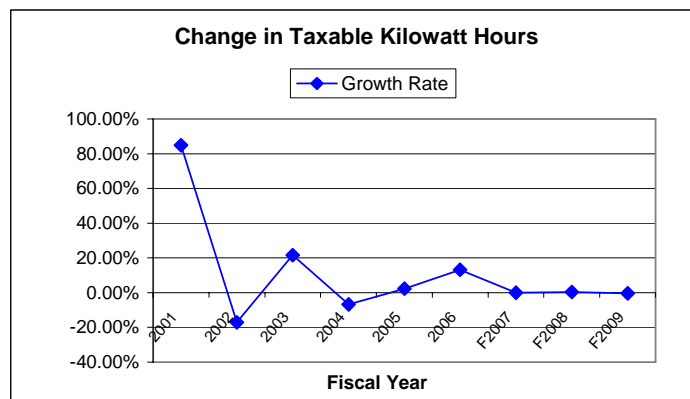
A number of different techniques can be used to develop the revenue estimate for this source. Choosing a technique depends on whether the technique passes the “reasonable” test. The survey technique was used in this analysis.

#### **The Survey Technique**

The taxable kilowatt hours are determined in a three-step process:

- The future kilowatt hours (both instate and out-of-state) for each company, as reported on the survey and adjusted for any downtime or transmission reductions, are summed.
- For those companies who did not respond or did not respond fully to the survey, estimates of production are derived from growth rates based on historical data. Out-of-state transmission amounts were estimated by the ratio of out-of-state amounts to total amounts as reported on the quarterly reports.
- Total amounts for out-of-state transmission are reduced by the exempt line loss amount of five percent.
- Since the survey results are reported on a calendar year basis, they are converted to a fiscal year basis by adding half the previous calendar year’s estimate to half of the current calendar year’s estimate.

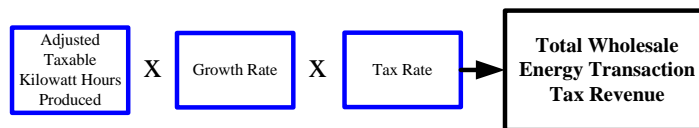
Taxable kilowatt hours are multiplied by the tax rate to derive total revenue from this source.



#### Adjustments and Distribution

Once total tax revenue for each fiscal year is determined, the applicable distribution percentage, 100 percent to the general fund, is applied.

#### **Forecast Methodology**



# Legislative Fiscal Division

## Revenue Estimate Profile

### Wholesale Energy Tax

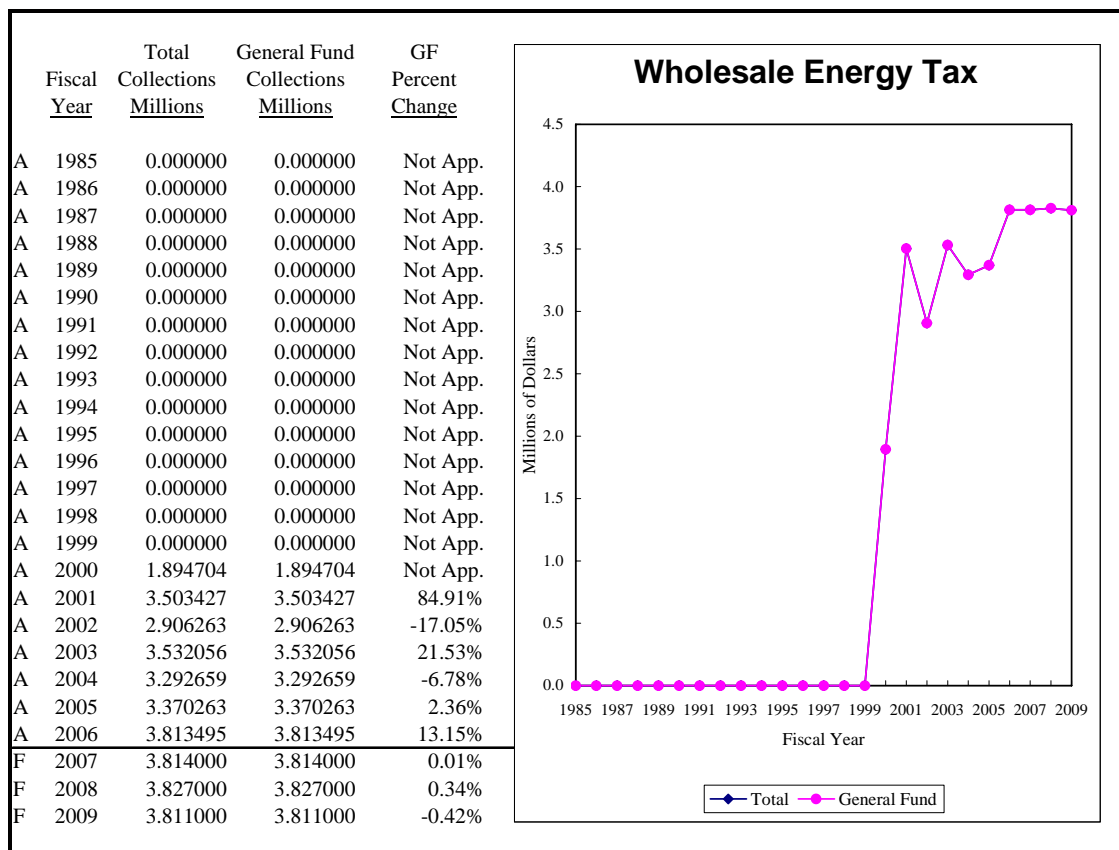
#### Revenue Estimate Assumptions

	t	Total Tax	GF Tax	KWH Fiscal	Credits	Tax	Line Loss
	Fiscal	Millions	Millions	Millions	Millions	Rate	Millions
Actual	2000	1.894704	1.894704	12273.924051	0.000000	0.000150	
Actual	2001	3.503427	3.503427	22658.110488	0.000000	0.000150	
Actual	2002	2.906263	2.906263	22775.157501	0.000000	0.000150	
Actual	2003	3.532056	3.532056	24780.402486	0.000000	0.000150	
Actual	2004	3.292659	3.292659	23961.126405	0.000000	0.000150	
Actual	2005	3.370263	3.370263	24326.536427	0.000000	0.000150	
Actual	2006	3.813495	3.813495	24870.822230	0.000000	0.000150	799.775000
Forecast	2007	3.814000	3.814000	26225.181000	0.000000	0.000150	799.775000
Forecast	2008	3.827000	3.827000	26314.340000	0.000000	0.000150	799.775000
Forecast	2009	3.811000	3.811000	26202.955000	0.000000	0.000150	799.775000

Total Tax = (KWH Fiscal - Line Loss) \* Tax Rate - Credits

GF Tax = Total Tax

#### Revenue Projection:



**Data Source(s):** SABHRS, Department of Revenue Wholesale Energy Tax Returns, Global Insight, Wall Street Journal

**Contacts:** Transmission companies' financial personnel, Department of Revenue