

Taxation of Precious Metals and Other Extracted Materials



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Introduction

Every state has a unique set of economic characteristics and allotments of natural resources. These features play a major role in the construction of tax systems that generate revenue for state and local governments. These features also greatly influence how tax systems evolve. The tax systems of a state are a piecemeal set of decisions made over time, and when comparing state tax structures due consideration to budgetary needs, political factors, and other tax systems within that state is essential.

South Dakota shares many similar economic characteristics with its neighboring states, and in some ways, South Dakota shares comparable allotments of natural resources with some of its neighboring states as well. There are, however, many instances where the economic landscape of South Dakota and its endowment of certain resources differs quite significantly from its neighboring states. These similarities and differences in economic characteristics and available resources mirror in many ways the similarities and differences in how South Dakota taxes its natural resources relative to other states in the Midwest.

To provide context for discussions surrounding taxes imposed on mining operations and certain energy production, this issue memorandum details the similarities and differences in the taxation of mining operations for metals, minerals, and valuable materials in South Dakota and other midwestern states. Additionally, a comparative analysis of taxes imposed on energy production from wind, solar, and nuclear power is provided.

Mining Taxation

There are two chapters in South Dakota Codified Law (SDCL), chapters 10-39A and 10-39B, that govern the taxation of physical materials used as fuel in the production of energy, as those materials are mined from the earth. Namely, these fuels are coal, oil, natural gas, uranium, and thorium. SDCL chapters 10-39A and 10-39B refer to these fuels by the term *energy minerals*. The term *energy minerals* also includes lignite, a type of coal, and petroleum, another name for crude oil and products made from crude oil. The inclusion of lignite and petroleum is somewhat redundant in the definition of the term *energy minerals* and therefore discussion of the taxation of energy minerals will be focused on coal, oil, natural gas, uranium, and thorium.

Each energy mineral taxed under chapters 10-39A and 10-39B is a physical commodity that is extracted from the ground. Other sources of energy such as the wind, sun, and hydropower are not physical commodities extracted from the ground, and they are not taxed under these chapters.

SDCL chapter 10-39A imposes a severance tax at the rate of 4.5% on the taxable value of energy minerals extracted from mining operations. SDCL 10-39A-5 requires the tax returns be filed and the tax paid on a quarterly basis, as opposed to the taxes on wind and solar energy facilities, which are paid on an annual basis pursuant to SDCL 10-35-17 to 10-35-19.1, inclusive. The exact taxable value of energy minerals depends on whether or not the material is sold. If the material is sold, the taxable value is equal to the sale price. If the material is not sold, but instead consumed before being sold, the taxable value is the market value of the good.

From the total amount of taxes remitted pursuant to SDCL chapter 10-39A, one-half of the money is returned to the county in which the minerals were severed, and one-half of the money is deposited into the state general fund.

SDCL chapter 10-39B imposes an additional tax on the severance of energy minerals at the rate of 0.24% on the taxable value of energy minerals extracted by mining operations. The revenue from this tax is distributed to an environment and natural resources fund pursuant to SDCL 1-41-23, to be used by the Department of Agriculture and Natural Resources to pay for any programs administered by the department or for any other purpose authorized by law.

Uranium and thorium are naturally occurring, radioactive metals that can be used in nuclear energy production. These metals are included in the definition of the term *energy minerals* and taxed in much the same way as coal, oil, and natural gas. Uranium is the most common fuel for nuclear energy,¹ despite thorium being more abundant in nature.² Plutonium is also a common fuel for nuclear energy, but it is only found in very small quantities in the Earth's crust. Plutonium is generated as a by-product of nuclear energy production from uranium. Despite it being useful for producing nuclear energy, it is not typically mined, and therefore excluded from the definition of energy minerals.³

While the tax systems to collect revenue on mining operations for coal, oil, and natural gas vary from state to state, all states that share a border with South Dakota impose a severance tax on coal, oil, and natural gas, with the exception of Iowa. To say that mining operations in Iowa are exempt from taxation would be inaccurate, however. There may not be a severance tax on coal, oil, and natural gas, but Iowa does impose a state corporate income tax that applies to corporations engaged in mining operations.

Energy minerals, as defined by SDCL 10-39A-1.1, are not the only materials subject to a severance tax in South Dakota. SDCL chapter 10-39 provides taxes on gold and silver, grouped together in the term *precious metals*, as defined by SDCL 10-39-42. There are several taxes imposed by this chapter:

- SDCL 10-39-43 imposes a severance tax of \$4 per ounce of gold severed.
- SDCL 10-39-45.1 imposes an additional severance tax at the rate of 10% of net profits of operations extracting both gold and silver.
- SDCL 10-39-68 imposes an additional tax on each ounce of gold severed in South Dakota. The per-ounce tax on gold varies depending on the average price of gold in relation to a set of price thresholds. The highest threshold in section 10-39-68 is set at \$800 or greater, per ounce of gold, at which point the tax rate is \$4 per ounce of gold severed. The average price per ounce of gold has not dropped under \$800 since 2005,⁴ making the lower thresholds established in this section immaterial for roughly the past 18 years.

From the total amount of taxes remitted pursuant to SDCL chapter 10-39, all of the money is deposited into the state general fund if the person severing precious metals was in business before 1981; otherwise, for a person permitted in 1981 or any year thereafter, 80% of the money is paid in the state general fund, and the remaining 20% is returned to the county in which the precious metals were severed.

¹ [US Energy Information Administration, Nuclear Explained](#)

² [World Nuclear Association, Thorium](#)

³ [World Nuclear Association, Plutonium](#)

⁴ [Macrotrends, Historical Price of Gold](#)



It is important to note that the tax imposed pursuant to SDCL 10-39-45.1, the severance tax on precious metals, differs from the severance tax on energy minerals, in that the precious metals severance tax is applied to net profits, whereas the energy minerals severance tax is applied to the market value of the material extracted. The severance tax on energy minerals is applied without making deductions for the cost of extracting and transporting the material among other costs of production. On the other hand, the severance tax on the net profits from mining precious metals does make deductions for the cost of production. Granted, the tax rate of the energy minerals severance tax is lower (4.5%) than the tax rate of the precious metals severance tax (10%), but this is an important consideration to make when comparing the tax rates of SDCL 10-39-45.1, the tax on precious metals, and SDCL 10-39A-1, the tax on energy minerals.

Minnesota, Montana, and Wyoming treat mining operations for uranium, thorium, or other precious metals largely the same for purposes of taxation with few exceptions. Generally, Minnesota and Montana tax the income or gross proceeds from mining operations for ores, metals, and minerals.⁵ ⁶ Wyoming imposes an ad valorem tax on the fair market value of extracted material from what it calls "other valuable deposits", which generally speaking applies to the ores, metals, and minerals, including uranium and thorium, that are taxed by Minnesota and Montana in much the same way.⁷

South Dakota differs from Minnesota, Montana, and Wyoming in this way. Instead of broadly taxing mining products, South Dakota specifically identifies individual materials that are subject to a severance tax. SDCL chapter 10-39 imposes a tax on gold and silver, and SDCL chapters 10-39A and 10-39B impose a tax on coal, oil, natural gas, uranium, and thorium. However, there are no severance tax provisions in law that apply generally to other minerals, metals, or ores that could be mined in South Dakota.

Notably, lithium, a metal used in the manufacturing of batteries for goods such as vehicles and personal computers, is undergoing a boom in demand both in the United States and globally. Most of the lithium deposits in the United States are located in the western part of the country, in states such as Nevada and California.⁸ Deposits of lithium do exist in the Black Hills area of South Dakota, clustered around Keystone, Hill City, and Custer.⁹

Minnesota, Montana, and Wyoming have lithium within their state borders, and there have been exploration efforts to locate more lithium deposits in these states. Additionally, as stated above, Minnesota, Montana, and Wyoming all impose broader severance taxes on metals, minerals, and ores extracted from the ground, which would implicitly include lithium if any mining operations in these states began severing lithium from the ground. South Dakota does not have statutory provisions that apply a general severance tax to ores, metals, or minerals extracted from the ground; therefore, if lithium mining operations began in South Dakota, they would not be subject to a severance tax.

This is the case for other metals and minerals in South Dakota as well. According to the U.S. Geographical Survey, roughly 60% of the world's beryllium is in the United States, in areas such as the Spor Mountains in Utah, the McCullough Butte area in Nevada, and the Black Hills area in South Dakota.¹⁰ Beryllium is used in the production of metals and alloys used for industrial purposes. Beryllium has a relatively high price, and like lithium, it does not fall under the definitions of energy minerals or precious metals on which severance taxes are imposed in South Dakota. Therefore, if mining operations for beryllium began in South Dakota, it would not be subject to a

⁵ [Minn. Stat. § 298.01](#)

⁶ [Mont. Code Ann. § 15-37 Part I](#)

⁷ [Wyo. Stat. Ann. § 39-14 Article 7](#)

⁸ [USGS, Lithium deposits in the United States](#)

⁹ [Midwest Lithium, South Dakota Lithium](#)

¹⁰ [USGS, Mineral Commodity Summaries 2023](#)



severance tax. In comparison to other neighboring states like Minnesota, Montana, and Wyoming, those states have broader severance taxes that would include the severance of beryllium from the ground.

Lithium and beryllium are just examples, but this principle generally applies to any mineral, metal, or ore severed in South Dakota. If the mineral or material is not specifically listed in the definitions used in chapters imposing severance taxes, then it is not subject to a state severance tax in South Dakota.

Wind and Solar Taxation

According to the South Dakota Public Utilities Commission (PUC), there are 26 major wind farms located in South Dakota, ranging from seven turbines at a wind farm in Jerauld County to 120 turbines at a wind farm in Clark County. There are also some additional small wind energy projects operating throughout the state as well.¹¹ In discussions of energy production and the taxation thereof, the term *nameplate capacity* is frequently used, and it is important to understand. The nameplate capacity of a wind farm or solar facility is the amount of energy generated by the wind farm or solar facility when operating at maximum capacity, measured in either kilowatts (KW) or megawatts (MW).¹² One megawatt is equal to 1,000 kilowatts. Below is a breakdown of wind farms in South Dakota, using information published by the PUC.

¹¹ [Public Utilities Commission, Wind Energy Projects](#)

¹² [US Energy Information Administration, Glossary](#)



Wind Farm	County	Wind Turbines	Nameplate Capacity (MW)	Operating Since
South Dakota Wind Energy Center	Hyde	27	40.5	2003
MinnDakota Wind Farm	Brookings	36	54	2008
Tatanka Wind Farm	McPherson	59	88.5	2008
Wessington Springs Wind Project	Jerauld	34	51	2009
Buffalo Ridge I Wind Farm	Brookings	24	50.4	2009
Titan Wind Project	Hand	10	25	2009
Day County Wind Farm	Day	66	99	2010
Buffalo Ridge II Wind Farm	Brookings, Deuel	105	210	2010
PrairieWinds SD1Wind Project	Jerauld, Aurora, Brule	101	151.5	2011
Oak Tree Wind Farm	Clark	11	19.5	2014
Beethoven Wind Farm	Bon Homme, Hutchinson, Charles Mix	43	80	2015
Campbell County Wind Farm	Campbell	43	94.3	2015
Brule Wind Farm	Brule	9	20	2018
Aurora Wind Farm	Aurora	9	20	2018
Crocker Wind Farm	Clark	120	400	2019
Coyote Ridge Wind Farm	Brookings	39	97	2019
Crowned Ridge I Wind Farm	Codington, Grant	87	200	2019
Prevailing Wind Park	Bon Homme, Hutchinson, Charles Mix	57	219.6	2020
Willow Creek Wind Farm	Butte	38	103	2020
Triple H Wind Project	Hyde	92	250	2020
Crowned Ridge II Wind Farm	Deuel, Grant, Codington	88	200	2020
Tatanka Ridge Project	Deuel	56	155	2021
Deuel Harvest Wind Farm	Deuel	109	301	2021
Dakota Range III Wind Farm	Grant, Roberts	32	151	2021
Dakota Range I & II Wind Farm	Grant, Codington	72	304	2022
South Dakota Wind Partners Wind Project	Jerauld	7	10.5	n/a

According to the reporting of the Office of Energy Efficiency and Renewable Energy in 2022, the development of new technologies and the construction of larger wind turbines has resulted in the average nameplate capacity of a single wind turbine to increase steadily over time.¹³ Additionally, according to the same source, it appears that North Dakota, South Dakota, Nebraska, and Kansas are states with some of the highest statewide wind speeds in

¹³ [Office of Energy Efficiency and Renewable Energy, Wind Turbines](#)



the United States. While some states like North Dakota and Wyoming are rich in physical natural commodities such as oil and natural gas, South Dakota is similarly "rich" in wind, relative to all other states in the country.¹⁴

While South Dakota may be rich in wind, it does not rank highly in terms of solar energy capacity. According to the Solar Energy Industry Association, which regularly publishes solar energy profiles for every state in the country, South Dakota ranks 49th of all states in the nation in total installed solar capacity, ahead of only North Dakota.¹⁵ The PUC lists one solar farm, located in Hughes County, with a nameplate capacity of 1 MW.¹⁶ While South Dakota ranks last in solar energy capacity, South Dakota ranks roughly average in the amount of sunshine it gets relative to other states, ranking lower than Wyoming and Nebraska, but ranking above Minnesota, North Dakota, and Montana.^{17 18}

SDCL 10-35-16 to 10-35-21, inclusive, contain the provisions pertaining to the taxation on wind and solar energy production. Specifically, SDCL 10-35-18 imposes a tax, paid on an annual basis, on all wind farms and solar facilities that came into operation in July 2007 or later. The tax payable pursuant to this section is equal to \$3 multiplied by the nameplate capacity of the wind farm or solar facility, in kilowatts.

SDCL 10-35-19 and 10-35-19.1 both impose an additional tax on wind farms and solar facilities. SDCL 10-35-19 applies to wind farms that came into operation between July 2007 and March 2015, and it taxes those wind farms at a rate of \$0.00065 per kilowatt hour (\$0.65 per megawatt hour) of electricity produced in the previous calendar year.

SDCL 10-35-19.1 applies to wind farms that came into operation in April 2015 or later, and all solar facilities, regardless of when the solar facility began producing power. The tax imposed pursuant to this section is equal to \$0.00045 per kilowatt hour (\$0.45 per megawatt hour) of electricity produced in the previous calendar year.

Pursuant to SDCL 10-35-21, 100% of the tax revenue collected pursuant to SDCL 10-35-18, imposed on the nameplate capacity of wind and solar farms established in July 2007 later, is deposited into the renewable facility tax fund and apportioned to the county in which the renewable energy facility is located. Similarly, pursuant to SDCL 20-35-21, 20% of the tax revenue collected pursuant to SDCL 10-35-19 and 10-35-19.1, imposed on the electricity produced by wind and solar farms, is deposited into the renewable facility tax fund and apportioned to the local units of government in which the renewable energy facility is located. The remaining money in the renewable facility tax fund is then deposited in the state general fund.

Regarding the money that is apportioned locally, it is further divided amongst the county (35%), school district (50%), and township (15%) in which the renewable energy facility is located.

While some states tax wind and solar energy in a similar manner as South Dakota, the taxation of wind and solar energy is in no way uniform amongst South Dakota and its neighboring states. Nebraska charges an annual nameplate capacity tax on renewable energy generation facility, at a rate of \$3,518 per MW,¹⁹ which is higher than South Dakota's tax rate of \$3,000 per MW. Nebraska, however, does not generate much electricity from wind energy relative to South Dakota, and Nebraska counties received roughly \$3 million from wind energy taxes in 2017.²⁰ For comparison, South Dakota generates more wind energy, and according to the South Dakota

¹⁴ [World Population Review, Windiest States](#)

¹⁵ [Solar Energy Industry Association, South Dakota State Profile](#)

¹⁶ [Public Utilities Commission, Solar Energy Projects](#)

¹⁷ [Nebraska Department of Environment and Energy, Comparison of Solar Power Potential by State](#)

¹⁸ [World Population Review, Sunniest States](#)

¹⁹ [Neb. Rev. Stat. § 77-6203](#)

²⁰ [Center for Rural Affairs, Nebraska Wind Energy Tax Revenue](#)



Department of Revenue, in 2022 a total of \$12.7 million was collected from wind taxes, \$9.1 million of which was distributed to local governments. In 2022, South Dakota counties received \$3.3 million.²¹

North Dakota also imposes a nameplate capacity tax on wind farms at the rate of \$2,500 per MW, which is lower than South Dakota's tax rate of \$3,000 per MW. Additionally, North Dakota imposes a tax on electricity production from wind farms at a rate of \$1.50 per megawatt hour of electricity produced,²² which is more than double South Dakota's tax rate of \$0.65 or \$0.45 per megawatt hour depending on the time at which the wind farm in South Dakota started operating.

Wyoming imposes a tax on electricity production from wind resources at a rate of \$1 per megawatt hour of electricity produced,²³ which is higher to South Dakota's tax rate of \$0.65 or \$0.45 per megawatt hour depending on the time at which the wind farm started operations.

Minnesota imposes a tax on electricity production of wind farms according to the size of the project. The tax rates range from \$0.12 per megawatt hour of electricity produced from small scale projects with a nameplate capacity of 2 MW or less, to \$1.20 per megawatt hour of electricity produced from what it categorizes as "large scale" projects with a nameplate capacity of 12 MW or greater.²⁴ South Dakota's tax rate of between \$0.45 and \$0.65 per megawatt hour falls roughly in the middle of Minnesota's range of tax rates, but most of South Dakota's wind farms are larger than the threshold for what Minnesota considers to be a "large scale" project. According to the Center for Rural Affairs, for 2022, 28 counties received a combined \$14.1 million from its wind energy production tax, with three counties receiving roughly \$1 million in wind tax revenue, one county receiving almost \$2 million, and one county receiving over \$3 million in wind tax revenue.²⁵

Some states, such as Iowa and North Dakota, offer a tax credit for the production of electricity using wind or solar resources. Iowa provides an incentive for wind energy production by providing an income tax credit equal to \$1 per megawatt hour of electricity produced from a wind farm, capped at 150 megawatt hours, and this tax credit is available to certain wind farms with a nameplate capacity of 50 MW or less. Iowa also offers an income tax credit for renewable energy production, equal to \$1.50 per megawatt hour of electricity produced from a renewable energy facility, available to wind farms with a nameplate capacity of 180 MW and available to other renewable energy facilities with a nameplate capacity of 20 MW.²⁶

North Dakota offers a corporate income tax credit for the cost of acquisition and installation of renewable energy devices installed in the state before 2015. The tax credit is equal to 3% of the total cost of the devices, each year for 5 years.²⁷

Nuclear Energy Tax

There are no nuclear power plants operating in South Dakota, although there was one nuclear power plant that operated near Brandon for a short time. The Pathfinder Nuclear Generating Station was completed in 1966, but ceased operation in 1967.²⁸ ²⁹ South Dakota does not impose a tax on nuclear energy production in the same way

²¹ [SD Department of Revenue, 2022 Annual Report](#)

²² [N.D. Cent. Code § 57-33.2-04](#)

²³ [Wyo. State. Ann. § 39-22-104](#)

²⁴ [Minnesota Department of Revenue, Wind Energy Production Tax](#)

²⁵ [Center for Rural Affairs, Minnesota Wind Energy Tax Revenue](#)

²⁶ [Iowa Department of Revenue, Wind Energy Production Tax Credit and Renewable Energy Tax Credit](#)

²⁷ [North Dakota Office of the State Tax Commissioner, 2020 North](#)

[Dakota Corporate Income Tax Credits](#)

²⁸ [Greetings from Sioux Falls, Pathfinder Nuclear Generating Station](#)

²⁹ [Argus Leader, City's Nuclear Age Lasted Only a Year](#)



that the state imposes a tax on energy production from renewable energy sources; however, SDCL chapter 10-45 contains provisions on the state sales tax, which includes the sale of electricity. The rate of this tax is 4.2% of gross receipts from the sale.

One state that does impose a tax specifically on the sale of electricity from nuclear reactors is Wyoming, which levies a tax equal to \$5 per megawatt hour of electricity sold, applied to all sales of electricity generated from a nuclear reactor.³⁰

Conclusion

Each state is unique with respect to its endowment of natural resources, even when examining states that are geographically close. Equally unique is a state's system of taxing those resources used in the production of goods and energy. Special consideration should be made to a state's budgetary needs, as that can greatly inform the tax base and tax rates chosen to generate revenue from natural resources. Specific parameters of a state's tax system for natural resources may be a result of other tax systems within that state, making it necessary to compare the details of states' tax systems within the context of existing tax structures.

For example, a state may have a broad tax on corporate income, and that can determine the nature of, or need for, more specific taxes on other economic activity. Another state might have a broad tax on the severance of metals, minerals, and valuable ores, and therefore might not need to impose more severance taxes on each specific mineral or metal extracted in that state.

This issue memorandum was written by Will Steward, Research Analyst, on August 7, 2023, for the Legislative Research Council. It is designed to provide background information on the subject and is not a policy statement made by the Legislative Research Council.

³⁰ [Wyo. State. Ann. § 39-23-104](#)

