



Interim Taxation Committee

November 28, 2007

Testimony of Lynn D. Helms, Director

The Industrial Commission's Department of Mineral Resources has jurisdiction over oil and gas exploration and production, coal exploration, geophysical exploration, geothermal energy extraction facilities, paleontology resource protection, subsurface mineral exploration and production, and the dissemination of geological information.

Uranium severance taxes

Colorado

2.25% of value

First \$19,000,000 per year per operator is exempt

Montana

1.81% of value

First \$250,000 per year per operator is exempt

Deductions for transportation, treatment, refining, impurity and moisture charges

Nebraska

2% of value

First \$5,000,000 per year per operator is exempt

South Dakota

4.5% of value

Less royalties paid to state or federal government

Wyoming

Uranium Spot Market Price	Tax Applied
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\$14.00 to \$15.00	1%
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\$15.01 to \$16.00	2%
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\$16.01 to \$17.99	3%
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\$18.00 or more	4%
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CHAPTER 38-12

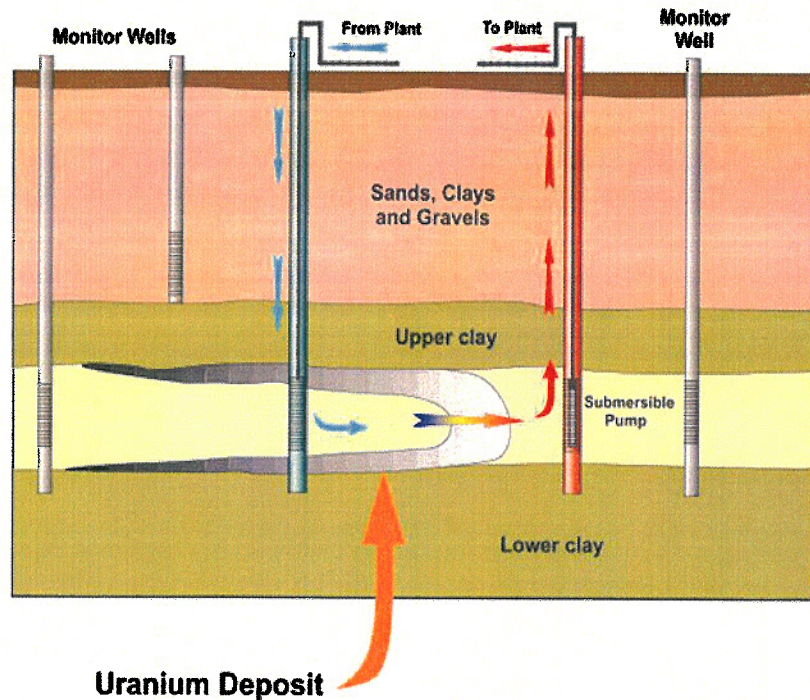
REGULATION, DEVELOPMENT, AND PRODUCTION OF SUBSURFACE MINERALS

38-12-01. Definitions. As used in this chapter, unless the context otherwise requires:

1. "Commission" means the industrial commission of the state of North Dakota.
7. "Subsurface minerals" means all naturally occurring elements and their compounds, volcanic ash, precious metals, carbonates, and natural mineral salts of boron, bromine, calcium, fluorine, iodine, lithium, magnesium, phosphorus, potassium, sodium, thorium, uranium, and sulfur, and their compounds, but does not include sand and gravel and rocks crushed for sand and gravel.

38-12-02. Jurisdiction of commission. The commission has jurisdiction and authority over all persons and property, public and private, necessary to enforce effectively the provisions of this chapter. Subject to the provisions of section 38-08-21, the director of mineral resources shall act as a supervisor charged with the duty of enforcing the regulations and orders of the commission applicable to the subsurface mineral resources of this state and the provisions of this chapter.

The in-situ uranium recovery process



Energy balance for various liquid fuel sources

Biodiesel – 3.2 - USDA and USDOE 1998 – counts heat value in meal used for feed - 5%

Ethanol – 1.24 - USDA 1995 - counts heat value in distillers grain used for feed - 33%

Petroleum diesel and gasoline – 8.6 – USDOE

Energy balance is the ratio of energy in the fuel and by products to the energy consumed in the production process.

Net carbon dioxide emissions for various liquid fuel sources

Biodiesel – 0.09 metric tons per barrel – meal used for feed generates CH₃ and CO₂

Ethanol – 0.25 metric tons per barrel – distiller's grain as feed generates CH₃ and CO₂

Petroleum diesel – 0.41 metric tons per barrel

Petroleum gasoline – 0.30 metric tons per barrel

The net carbon dioxide emissions are the tons of carbon dioxide generated by burning the fuel minus the carbon dioxide consumed in the production process. Green house gasses generated when by products are used for feed is highly variable and has not yet been quantified to my knowledge.

Cost to produce a unit of energy for various sources – USDOE data

	One-Time Cost per kWh	Capacity (usage) Factor	Fixed Cost per kWh	Variable Cost per kWh	Total Cost per kWh
Ethanol	\$473	90%	5.6¢	6.4¢	12.0¢
Bio-Diesel	\$231	90%	2.7¢	6.4¢	9.1¢
Petroleum-Gasoline	\$192	98%	2.3¢	6.0¢	8.3¢
Petroleum-Diesel	\$171	98%	2.0¢	5.4¢	7.4¢
Geothermal	\$228	99%	2.8¢	1.1¢	3.9¢
Natural Gas	\$57	98%	0.7¢	2.8¢	3.5¢
Wind	\$1,254	40%	7.5¢	0.0¢	7.5¢
Nuclear	\$2,180	90%	4.3¢	0.3¢	4.6¢
Coal	\$1,338	90%	2.7¢	1.9¢	4.5¢
Hydro	\$1,982	99%	4.0¢	0.0¢	4.0¢

Ethanol receives 3-6¢ per kWh tax subsidies.

Bio-Diesel receives 1-3¢ per kWh tax subsidies.

Geothermal receives 1¢ per kWh federal tax credit.

Wind receives 1.5¢ per kWh federal tax credit.

There are a number of tax incentives offered by the state:

Coal conversion (gasification and beneficiation) revenue from byproducts, CO₂, and synthetic gas sold for less than \$4.75/MCF exemption.

Wind turbines taxable valuation reduction and sales tax exemption.

CO₂ pipeline property tax exemption.

Biomass, geothermal, solar, and wind devices income tax credit.

Ag commodity processing facility construction materials sales tax exemption.

Coal, natural gas, fuel oil, and propane heating fuel tax exemption.

Ethanol and biodiesel motor vehicle and special fuels tax exemptions.

Shallow natural gas gross production tax exemption.

Materials used in compressing, processing, gathering, or refining of natural gas sales tax exemption.

Oil extraction tax exemptions and reductions.

Power plant construction, production, environmental upgrade, and repowering equipment and oil refinery or gas processing plant environmental upgrade equipment sale tax exemptions.