ENHANCED OIL AND GAS RECOVERY STUDY - BACKGROUND MEMORANDUM

During the 2015-16 interim, the Taxation Committee is charged with undertaking two studies related to enhanced recovery of oil and gas. The first study, provided in Section 4 of 2015 Senate Bill No. 2318 (Appendix A), directs a study of the oil extraction tax exemption available for incremental production from a tertiary recovery project that uses carbon dioxide. The study must include consideration of the potential benefits and costs to industry, the state, and the environment of using carbon dioxide enhanced recovery methods. The study directs the Legislative Management to secure assistance from the Energy and Environmental Research Center to analyze potential future usage of carbon dioxide in oil recovery operations in the Bakken and Three Forks Formations, the potential production and environmental benefits of that usage for energy industries in this state, the economic conditions in which that usage is feasible for oil producers, and the estimated fiscal effect of that usage for the state and political subdivisions.

The second study, provided in Section 42 of 2015 Senate Bill No. 2015 (Appendix B) directs a study of the current scientific and economic information regarding oil and gas recovery and enhanced recovery techniques, including the use of carbon dioxide, the timeline for implementing the techniques, and the estimated future annual economic impact, to evaluate existing and alternative tax incentives and recommend tax incentives that under current and foreseeable conditions, and within different oil formations, would best serve the interest of the state, political subdivisions, and fossil fuel energy production industries. Section 11 of 2015 Senate Bill No. 2015 provides for an appropriation of $400,000 to the Legislative Council for purposes of securing consultants to study oil and gas tax incentives and oil and gas recovery techniques.

This memorandum provides background information on the subject matter related to these two studies.

EVOLUTION OF OIL AND GAS PRODUCTION AND TAXATION

Currently ranked 2nd out of 31 oil- and gas-producing states, North Dakota had 12,659 active wells in May 2015, and an average rig count of 83 rigs. Statewide production averaged 1,201,159 barrels of crude oil and 1,625,624 million cubic feet (mcf) of gas per day in May 2015, according to information published by the Industrial Commission. These figures can be compared to prior year totals of 10,916 active wells, 189 rigs, 1,040,625 barrels of crude oil per day, and 1,195,410 mcf of gas per day in May 2014. The highest rig count to date was recorded in May 2012, with a rig count of 218 rigs. The highest producing month was recorded in December 2014, with average daily production totals reaching 1,227,344 barrels of oil per day. Accompanying the ebb and flow of production is an ever changing landscape of infrastructure and facilities.

North Dakota currently has one longstanding refinery, the Tesoro Mandan Refinery, with a processing capacity of 71,000 barrels of oil per day. A second refinery, the Dakota Prairie Refinery, located west of Dickinson, was recently completed in May 2015, and is designed to process 20,000 barrels of oil per day. North Dakota also has several natural gas processing facilities with the three largest being the Hess Tioga plant, with a processing capability of 250 mcf of gas per day, and the ONEOK Garden Creek II and III facilities with a processing capability of 240 mcf of gas per day. According to information published by the North Dakota Pipeline Authority, state infrastructure also includes 15 crude oil pipelines, nine natural gas pipelines, three product pipelines, and one carbon dioxide pipeline.

Oil and Gas Gross Production Tax

The oil and gas gross production tax is imposed in lieu of property taxes on oil- and gas-producing properties pursuant to North Dakota Century Code Chapter 57-51. As originally enacted in 1953, the oil and gas gross production tax was a tax of 4.25 percent of gross value at the well of oil and gas. The total net proceeds collected from the gross production tax was $306,000 in fiscal year 1954.

In 1957 the rate of the tax was increased to a rate of 5 percent of gross value at the well of oil and gas. From 1957 to 1981 the distribution formula for proceeds of the gross production tax remained the same in Section 57-51-15. During that time, the first 1 percent of gross value at the well of oil and gas produced was credited to the general fund. After deduction of the general fund's 1 percent share in each county, the balance was distributed as follows:

- The first $200,000, 75 percent to the producing county and 25 percent to the general fund.
- The next $200,000, 50 percent to the producing county and 50 percent to the general fund.
- All remaining revenue, 25 percent to the producing county and 75 percent to the general fund.

In 1981 the Legislative Assembly amended the distribution formula. This amendment did not change the disposition of the general fund's 1 percent share. Remaining tax revenue from oil and gas produced in each county was distributed as follows:

- The first $1 million, 75 percent to the producing county and 25 percent to the general fund.
- The next $1 million, 50 percent to the producing county and 50 percent to the general fund.
- All remaining revenue, 25 percent to the producing county and 75 percent to the general fund.

The overall effect of the 1981 amendment was to give each producing county an increase of up to $600,000 per year.

In 1981 caps, or maximums, were introduced to restrict revenues producing counties could receive from the gross production tax for each year of the 1981-83 biennium. The caps were based on the population of each county and increased in the second year of the biennium. At the close of fiscal year 1983, these caps were scheduled to expire. The amounts allocated to a county which exceeded the cap imposed were instead deposited in the general fund. The maximum amount that a producing county could receive in fiscal year 1983 was:

- For counties with a population of 3,000 or fewer - $3.8 million.
- For counties with a population from 3,001 to 5,999 - $4 million.
- For counties with a population of 6,000 or more - $4.5 million.

The manner in which revenues received by a county are allocated within the county was also changed in 1981. Before 1981, Section 57-51-15 provided for allocation of 40 percent of county revenues to the county road and bridge fund, 45 percent to school districts within the county, and 15 percent to incorporated cities within the county. After the 1981 amendment, county revenues were distributed 45 percent to the county general fund, 35 percent to the school districts within the county, and 20 percent to the incorporated cities within the county. The 1981 amendment also imposed caps upon revenues that may be received by school districts and cities. School districts were limited to a maximum of 70 percent of the county per student cost times the number of students in attendance or in the school census, whichever was greater, unless the district had an average daily attendance or school census fewer than 400, in which case that district could receive up to 120 percent of the county average per student cost times the number of students in attendance or in the school census, whichever was greater. Incorporated cities were limited to a distribution not exceeding $500 per capita in any fiscal year. Amounts exceeding the caps for school districts or cities reverted to the county general fund.

In 1983 caps for county revenues from oil and gas gross production taxes were extended through the 1983-85 biennium, and the maximum amounts that a producing county could receive in a fiscal year were adjusted as follows:

- For counties with a population of 3,000 or fewer - $3.9 million.
- For counties with a population from 3,001 to 5,999 - $4.1 million.
- For counties with a population of 6,000 or more - $4.6 million.

A 1985 amendment made the caps on county revenue from oil and gas gross production taxes permanent at the rates established set in the 1983 bill.

A 1989 amendment allocated up to $5 million per biennium from the first 1 percent of oil and gas gross production tax revenues to the oil and gas impact grant fund and provided a continuing appropriation of the amount for allocation by the Energy Development Impact Office to oil- and gas-impacted political subdivisions.

A 1991 amendment changed the tax on gas from a tax of 5 percent of the gross value at the well to an annually adjusted flat rate per mcf.

A 2003 amendment provided a 24-month exemption from gross production tax for new or recompleted shallow gas wells.

A 2005 amendment increased the oil and gas gross production tax allocation for the oil and gas impact grant fund from $5 million to $6 million per biennium beginning with the 2007-09 biennium.

In 2007 the Legislative Assembly amended the distribution formula in Section 57-51-15. This amendment did not change the disposition of the general fund's 1 percent share. Remaining tax revenue from oil and gas produced in each county was distributed as follows:

- The first $1 million, entirely to the county.
- The second $1 million, 75 percent to the producing county and 25 percent to the general fund.
- The third $1 million, 50 percent to the producing county and 50 percent to the general fund.
- All remaining revenue, 25 percent to the producing county and 75 percent to the general fund.

The overall effect of the 2007 amendment was to give each producing county an increase of up to $750,000 per year.

A 2007 amendment allowed a county that reaches the annual cap on oil and gas gross production tax revenue to receive an additional $1 million in revenues if the county levies a total of at least 10 mills for county road and bridge, farm-to-market and federal aid road, and county road purposes. Any of the additional $1 million received by the county is not for allocation to political subdivisions within the county but must be credited entirely to the county general fund.

The $500 per capita per year limit on city allocations was eliminated in 2007. A $750 per capita per year limit on city allocations was created in 2009. The $750 per capita per year limit on city allocations was eliminated in 2011.

A 2009 amendment by House Bill No. 1304, as amended by House Bill No. 1324, significantly increased allocation of oil and gas gross production taxes to political subdivisions and the oil and gas impact grant fund. From the tax equal to the first 1 percent of gross value at the well of oil production, a direct allocation of $500,000 was created for a city in an oil-producing county which has a population of 7,500 or more and more than 2 percent of its employment engaged in the mining industry. The allocation was increased to $1 million if the city's population exceeds 7,500 and employment in the mining industry exceeds 7.5 percent of its employment. Also from the tax equal to the first 1 percent of gross value of oil produced, the biennial allocation to the oil and gas impact grant fund was increased from $6 million to $8 million per biennium.

The bill made several changes in allocations of oil and gas gross production tax revenue to political subdivisions. The bill increased from $1 million to $2 million the initial amount of tax revenue allocated 100 percent to the producing county. The bill removed the caps on tax revenue allocations to counties but provided that any amount exceeding $18 million of annual revenue to a county is allocated 10 percent to the county and 90 percent to the general fund. The bill required a county to levy at least 10 mills for county road and bridge, farm-to-market and federal aid road, and county road purposes to receive any allocation of oil and gas gross production tax revenues. The bill restructured allocation of revenues within counties to hold school district allocations at approximately the level provided under existing law and established a county infrastructure fund for deposit of funds exceeding $5.35 million allocated to the county. Revenues allocated to a county infrastructure fund were allocated to the county and to cities in the same proportion as existing law, but the 35 percent share allocated to school districts under prior law was instead allocated to the board of county commissioners to provide grants to or for the benefit of townships or school districts. Grants were to be available on the basis of applications by townships for funding to offset oil and gas development impact to township roads or other infrastructure needs or applications by school districts for repair or replacement of school district vehicles necessitated by damage or deterioration attributable to travel on oil and gas development-impacted roads. For unorganized townships within the county, the board of county commissioners was allowed to expend an appropriate portion of county infrastructure fund revenues to offset oil and gas development impact to unorganized township roads or other infrastructure needs.

The bill provided that within 60 days after the end of each fiscal year, the board of county commissioners of a county that has received oil and gas gross production tax revenue allocations must file a report with the Tax Commissioner showing the amount received by the county, the amount expended for each purpose to which the funds were devoted, the share of county property tax revenue expended for each of those purposes, and the amount of unexpended funds remaining at the end of the fiscal year. The report must also show the amount available in the county infrastructure fund, the amount allocated to each organized township or school district and the amount expended from that allocation by that township or school district, the amount expended on behalf of unorganized townships, and the amount in the county infrastructure fund which remained unexpended at the end of the fiscal year. The bill required the Tax Commissioner to compile the information from the reports and provide a report to the Legislative Management. The Legislative Management assigned the interim Taxation Committee the responsibility of receiving this report.

House Bill No. 1013 (2011) increased from $8 million to $100 million per biennium the amount to be deposited in the oil and gas impact grant fund from the first 1 percentage point of the oil and gas gross production tax. The bill also changed the name of the Energy Development Impact Office to the Energy Infrastructure and Impact Office. The bill transferred the authority to make grants for oil and gas impact from the Energy Development Impact Office to the Board of University and School Lands. The Energy Infrastructure and Impact Office was to make recommendations to the board on grants to political subdivisions. The recommendations were to include recommendations for 35 percent of impact funding to go to cities of 10,000 or more population and the remainder to go to smaller cities and counties, school districts, and other political subdivisions impacted by oil and gas development.

House Bill No. 1077 (2011) eliminated the $750 per capita limit on the amount a city may receive under the oil and gas gross production allocation formula.

House Bill No. 1358 (2013) restructured the allocation of oil and gas gross production tax collections. The bill provided for allocation to hub cities and hub city school districts from the first 1 percentage point of the 5 percentage point gross production tax. Hub cities were to receive $375,000 per fiscal year for each full or partial percentage point of private covered employment in the mining industry, which was estimated to provide for allocations of $45.75 million to hub cities for the 2013-15 biennium. Hub city school districts were to receive $125,000 per fiscal year for each full or partial percentage point of private covered employment in the mining industry, which was estimated to provide $15.25 million of allocations to hub city school districts for the 2013-15 biennium. The oil and gas impact grant fund was to receive $240 million for the 2013-15 biennium from the first 1 percentage point of the 5 percentage point gross production tax.

Allocation of the remaining 4 percentage points of the 5 percentage point gross production tax was revised to provide that the first $5 million of tax collected from production in each county goes entirely to that county and revenue over $5 million during a fiscal year goes 25 percent to that county and 75 percent to the state.

For allocation within the county, for a county that received less than $5 million in gross production tax allocations in the previous fiscal year, the receipts of the county were allocated 45 percent to the county, 20 percent cities, and 35 percent to school districts and hub cities and hub city school districts were excluded from this allocation. For counties that received $5 million or more in gross production tax receipts in the previous fiscal year, revenues received by the county were allocated 60 percent to the county, 20 percent to cities, 5 percent to school districts, 3 percent to townships based on proportion of township road miles relative to township road miles in the entire county, 3 percent to townships distributed in equal amounts to each township in the county, and 9 percent for a special allocation to hub cities of which the total amount is allocated 60 percent to Williston, 30 percent to Dickinson, and 10 percent to Minot.

Compared to prior law, House Bill No. 1358 was estimated to provide $140 million more funding for the oil and gas impact grant fund, $300 million additional allocations directly to political subdivisions, and a reduction of approximately $440 million in the state share of revenues. Funding to the legacy fund was unchanged and funding to the oil and gas research fund and the tribal share of oil tax revenues were unaffected by this bill.

The bill also provided an appropriation of $160 million to the Department of Transportation for allocation for road improvements in oil-producing counties that received $5 million or more of gross production tax allocations for fiscal year 2012; $120 million to the Department of Transportation for allocation among counties that did not receive $5 million or more of gross production tax allocations in fiscal year 2012; $8.76 million to the State Treasurer for allocation to counties for allocation to or for the benefit of townships in oil-producing counties; $2 million to the Department of Commerce for a grant program for nursing homes, basic care facilities, and providers that serve individuals with developmental disabilities in oil-producing counties; $239,299,174 to the Board of University and School Lands for oil and gas impact grants; $9.6 million to the Department of Human Services for a grant program for critical access hospitals in oil-producing counties and counties contiguous to an oil-producing county; $9.6 million to the Attorney General for grants to law enforcement agencies, crime-related needs of the Attorney General's office, and development of a uniform law enforcement and custody manual; and $120,000 to Job Service North Dakota to upgrade statistical information on employees in oil- and gas-related employment.

House Bill No. 1278 (2013) established a North Dakota outdoor heritage fund and provided that the tax revenue from the first 1 percentage point of the 5 percentage point gross production tax, up to 4 percent of the amount available is to be deposited in the North Dakota outdoor heritage fund, but not in amount exceeding $15 million in a state fiscal year and not in an amount exceeding $30 million per biennium. The bill provided that the fund must be used to provide grants to state agencies, tribal governments, political subdivisions, and nonprofit organizations to provide access to private and public lands for sportsmen, support stewardship practices, develop and conserve wildlife and fish habitat, and conserve natural areas for recreation.

House Bill No. 1134 (2013) revised laws on flaring of gas from oil and gas wells. The bill did not change the time limit of one year when flaring is allowed but allowed extension of that time if the well was equipped with an electrical generator that consumes at least 75 percent of the gas from the well; equipped with a system that intakes at least 75 percent of the gas and natural gas liquids volume from the well for beneficial consumption by means of compression to liquid for use as fuel, transport to a processing facility, production petrochemicals or fertilizer, conversion to liquid fuels, or separating and collecting over 50 percent of the propane and heavier hydrocarbons; or equipped with value-added processes as approved by the Industrial Commission which reduce the volume or intensity of the flare by more than 60 percent. The bill provided an oil and gas gross production tax exemption for a period of two years and 30 days if the gas was collected under one of the optional methods for which extended duration of flaring is permitted. The bill also provided a sales and use tax exemption for materials used in collecting gas at the well site for one of the methods of collecting gas for which an extended period of flaring was permitted.

House Bill No. 1333 (2013) provided that from the first 1 percentage point of the 5 percentage point oil and gas gross production tax, 4 percent of the amount was to be transferred to the abandoned oil and gas well plugging and site reclamation fund, but not in an amount exceeding $5 million in a state fiscal year and not in an amount that would bring the balance in the fund to more than $75 million.

House Bill No. 1005 (2013) amended a portion of the statutory authority governing the state-tribal oil and gas tax agreement to make clear that the state's share of oil and gas gross production tax revenue was subject to distribution among political subdivisions as provided in the gross production tax law.

Oil Extraction Tax

On November 4, 1980, the voters of the state approved Initiated Measure No. 6 on the general election ballot and established an oil extraction tax as a companion tax to the oil and gas gross production tax that existed since 1953. The oil extraction is levied on the extraction of oil from the earth pursuant to Chapter 57-51.1. As originally enacted, the tax rate was established at 6.5 percent of the gross value of oil at the well, subject to full or partial exemptions. The initial extraction tax law provided exemptions for oil exempt from gross production taxes, up to 100 barrels per day of oil owned by a royalty owner, and oil from a stripper well, defined as a well producing 10 barrels or less of oil per day.

Oil extraction tax revenues were to be allocated 45 percent to the general fund, 45 percent to education funding, and 10 percent to water pipeline and resources trust fund uses. The allocation formula was amended in 1981 to allocate 30 percent to the general fund, 60 percent to education funds, and 10 percent to water pipeline and resources trust fund uses. The allocation formula was amended once again in 1983 to allocate 90 percent to the general fund and 10 percent to education funds.

In 1987 the 10-barrel per day limitation for stripper well properties was left in place for wells of a depth of 6,000 feet or less, but the limit was increased to 15 barrels per day for wells of a depth of 6,000 to 10,000 feet and 20 barrels per day for wells of a depth of more than 10,000 feet. For wells drilled and completed after April 27, 1987, and for qualifying secondary or tertiary recovery projects, the rate of tax was reduced from 6.5 to 4 percent of gross value at the well. In addition to the rate reduction, production from new wells completed after April 27, 1987, was given a full extraction tax exemption for the first 15 months of production. A trigger provision was included so that the rate would return to 6.5 percent if the average price of crude oil between June 1 and October 31 of any year is $33 per barrel or more. The royalty owner exemption was eliminated in 1987.

In 1989 an exemption was created for production during the first 12 months after a well has been worked over. The exemption required filing of a notice of intent to begin a workover project with the Industrial Commission before beginning the project. A qualifying project was required to have a cost of at least $65,000, which was reduced to $30,000 if production increased by at least 50 percent during the first two months after completing the project. The exemption was limited to wells producing no more than 50 barrels of oil before beginning the project. The trigger mechanism was applied to the workover exemption.

In 1991 the trigger mechanism was adjusted to provide that if the oil price exceeded $33 per barrel for any period of five consecutive months, the exemptions and rate reductions would not apply, rather than being based on June to October prices. A reverse trigger was also instituted to reinstate the reduced rates and exemptions when the price for a barrel of crude oil is less than $33 for any consecutive five months. Other 1991 legislation provided for a 5-year exemption for oil produced from a secondary recovery project and a 10-year exemption for oil from a tertiary recovery project. The legislation required Industrial Commission certification of the project as qualifying for the exemption. The exemptions apply only to incremental production, defined as the total amount of oil produced minus the amount of oil that had been produced prior to the recovery project.

In 1993 the exemption for the first 12 months of production after a workover project was amended to eliminate the minimum investment of $30,000 if production is increased at least 50 percent in the first two months after completing the project. The change retained the $65,000 level of spending that would qualify the project for exemption if production is increased by less than 50 percent. The bill also reduced the tax rate from 6.5 to 4 percent for production from a workover well after the 12-month exemption period.

In 1995 a 24-month oil extraction tax exemption was created for production from a horizontal well. The bill created a 10-year exemption for production of oil from a well that has been inactive for two years and a nine-month exemption for production from a horizontal re-entry well. The inactive well and horizontal re-entry well exemptions were made subject to the trigger mechanism. The limit on stripper well classification for wells deeper than 10,000 feet was increased from 20 to 30 barrels per day. Other 1995 legislation required certification by the Industrial Commission of qualifying status for wells eligible for exemptions or rate reductions. The allocation formula was also amended in 1995 to provide 60 percent to the general fund, 20 percent to education funding, and 20 percent to water pipeline and resources trust fund uses.

In 1997 legislation was enacted to grant a five-year extraction tax exemption for production from new wells within the boundaries of an Indian reservation on tribal trust lands or land owned by a tribe. Legislation also established a permanent oil tax trust fund and required that all general fund revenue from oil and gas gross production tax and oil extraction tax exceeding $71 million in a biennium be transferred into the fund.

In 2001 the trigger provision for exemptions and rate reductions was amended to clarify when the trigger was to become effective. All rate reductions and exemptions subject to the trigger provision would become ineffective if the average price of a barrel of crude oil exceeded the trigger price for each month in any consecutive five-month period. Average price was defined as the monthly average of the daily closing price for a barrel of West Texas Intermediate Cushing crude oil minus $2.50. Trigger price was defined as $35.50 per barrel, as indexed for inflation.

In 2003 an Oil and Gas Research Council was created and an oil and gas research fund was established with a continuing appropriation provided. A temporary exemption from gross production tax was provided for gas produced from shallow gas wells, with an expiration date of June 30, 2007. The two-year inactive well exemption was amended to clarify the definition of a two-year inactive well and to provide an 18-month provision to qualify the well for an exemption to be consistent with other oil extraction tax exemptions. The workover well exemption was amended to remove the requirement that a notice of intention must be filed before a workover project is commenced to qualify for an exemption.

In 2005 the Legislative Assembly provided for a sales and use tax exemption for carbon dioxide used for the enhanced recovery of oil or natural gas and increased the oil and gas research fund allocation to $1.3 million per biennium after the 2003-05 biennium. A sales tax exemption was also provided for machinery, equipment, and related facilities for reducing emissions, increasing efficiency, or enhancing reliability of equipment of a new or existing oil refinery or gas processing plant.

Legislation in 2007 provided an oil extraction tax reduction to 2 percent for the first 75,000 barrels of oil during the first 18 months after completion from a horizontal well drilled and completed in the Bakken Formation from July 1, 2007, through June 30, 2008. The gross production tax exemption for shallow gas was made permanent for the first 24 months of production. An increase was provided from $1.3 million to $3 million per biennium in the amount of oil extraction tax revenues to be deposited in the oil and gas research fund.

The Governor was given authority by 2007 Senate Bill No. 2419 to enter agreements with the Three Affiliated Tribes of the Fort Berthold Reservation relating to taxation and regulation of oil and gas exploration and production within the boundaries of the Fort Berthold Reservation. The statutory provisions require the state oil and gas gross production tax must apply in full to all wells within the Fort Berthold Reservation and the state oil extraction tax for trust lands on the Fort Berthold Reservation may not exceed a 6.5 percent rate but may be reduced through negotiation of the agreement. All revenues and exemptions from all oil and gas gross production and oil extraction taxes attributable to production from trust lands on the Fort Berthold Reservation must be evenly divided between the Three Affiliated Tribes and the state. For production from nontrust lands on the Fort Berthold Reservation, the state must receive 80 percent and the Three Affiliated Tribes must receive 20 percent of total oil and gas gross production tax collections in lieu of application of the Three Affiliated Tribes' fees and taxes related to production on such lands. The state's share of revenue under the agreement is subject to allocation among political subdivisions within the boundaries of the reservation. The first $700,000 of the state's share of tax revenues from oil produced from wells within the exterior boundaries of the Fort Berthold Reservation must be transferred to the permanent oil tax trust fund. The Governor entered an agreement with the Three Affiliated Tribes in compliance with the statutory requirements, effective July 1, 2008. It appears the legislation and agreement have had the desired effect. Before July 1, 2008, there was no drilling activity on the Fort Berthold Reservation. In the first 13 months after the agreement was entered, 163 drilling permits were issued and 131 wells were completed.

A 2009 amendment by House Bill No. 1235 provided a contingent rate reduction in the oil extraction tax which reduced the oil extraction tax rate for horizontal wells from 6.5 to 2 percent during the time the rate reduction is in effect. Existing law provided a complete oil extraction tax exemption that triggers into effect if the price of oil for five consecutive months remains below the trigger price. April 2009 would have been the fifth consecutive month below the trigger price, but the average price for April rose to an amount exceeding the trigger price which meant that the exemptions under the existing law did not trigger into effect. Because the exemptions did not trigger into effect, the rate reduction provided by House Bill No. 1235 became effective May 1, 2009, and remained in effect through October 2009. The rate reduction would trigger into effect again if the average price for a month dropped below $55. The rate reduction applied to oil produced during the first 18 months after completion for a horizontal well and was limited to the first 75,000 barrels or the first $4.5 million of gross value at the well of oil produced from the well. If the rate reduction was effective on the date of completion of a well, the rate reduction would apply to production from that well for up to 18 months after completion, even if the price of oil rises to more than $70. If the rate reduction was ineffective on the date of completion of a well, the rate reduction would not apply to production from that well at any time. The triggered rate reduction was scheduled to expire June 30, 2012, but was extended to June 30, 2013, by 2011 House Bill No. 1467.

A 2009 constitutional amendment (House Concurrent Resolution No. 3054) was placed on the 2010 general election ballot to establish the legacy fund as a constitutional trust fund. The measure was approved by about 65 percent of the voters and became effective for oil and gas production after June 30, 2011. The measure is now Article X, Section 26, of the Constitution of North Dakota, and requires 30 percent of total revenue derived from taxes on oil and gas production or extraction to be transferred to the legacy fund. The principal and earnings of the legacy fund may not be expended until after June 30, 2017. An expenditure of principal after June 30, 2017, requires a vote of at least two-thirds of the members elected to each house of the Legislative Assembly and not more than 15 percent of the principal of the legacy fund may be expended during a biennium. The measure provides for transfer of earnings of the legacy fund accruing after June 30, 2017, to the general fund at the end of each biennium. Legislation in 2009 also increased the allocation to the oil and gas research fund to $4 million per biennium.

House Bill No. 1467 (2011) extended the effective date through June 30, 2013, for a triggered oil extraction tax rate reduction. If the trigger price was reached, the first 75,000 barrels or $4.5 million of oil produced during the first 18 months from a horizontal well would be subject to a reduced tax rate of 2 percent, instead of the normal 6.5 percent oil extraction tax. The rate reduction would become effective on the first day of the month following a month for which the average price of a barrel of crude oil is less than the trigger price of $55.

Senate Bill No. 2129 (2011) made statutory changes to implement the requirements of Article X, Section 26, of the Constitution of North Dakota, requiring deposit of 30 percent of all oil and gas tax revenue in the legacy fund. Under this bill, political subdivisions were held harmless against allocation reductions because of the legacy fund deposit and each political subdivision was to receive the same proportion of oil and gas gross production tax revenues as it received before the legacy fund was established. The entire amount of the deposits in the legacy fund was to be deducted from the state's share of oil and gas gross production taxes and oil extraction taxes.

House Bill No. 1451 (2011) eliminated the permanent oil tax trust fund and provided for biennial revenues from oil and gas taxes designated for deposit in the general fund to be deposited as follows:

1. The first $200 million into the general fund;

2. The next $341.79 million into the property tax relief sustainability fund;
3. The next $100 million into the general fund;
4. The next $100 million into the strategic investment and improvements fund;
5. The next $22 million into the state disaster relief fund; and
6. Any additional revenues into the strategic investment and improvements fund.

House Bill No. 1216 (2011) designated hydraulic fracturing--a mechanical method of increasing the permeability of rock to increase the amount of oil and gas produced from the rock--as an acceptable recovery process. This bill included an emergency clause and became effective April 11, 2011.

House Bill No. 1198 (2013) eliminated stripper well property status for wells drilled and completed or re-entered and recompleted after June 30, 2013. For wells drilled and completed or re-entered and recompleted after June 30, 2013, wells must be evaluated on an individual basis for stripper well status based on the production from the well and are not eligible for the stripper well exemption unless the individual well produces 30 barrels or less per day outside the Bakken and Three Forks Formations and 35 barrels or less per day for wells in the Bakken or Three Forks Formations. The bill provided for a reduced oil extraction tax rate of 2 percent for the first 75,000 barrels of oil produced during the first 18 months after completion of a well drilled and completed outside the Bakken and Three Forks Formations after June 30, 2013.

The bill revised the statutory framework for the state-tribal oil and gas tax agreement. The bill eliminated the 5-year exemption for wells drilled on an Indian reservation after June 30, 2013. The bill increased the tribal share of revenue allowable under the agreement for production on nontrust lands from 20 percent of oil and gas gross production taxes to 50 percent of total oil and gas gross production and oil extraction taxes. The bill provided that the state-tribal agreement must require that the Three Affiliated Tribes report annually to the Budget Section of the Legislative Management to identify investment of at least 10 percent of tribal oil and gas gross production and oil extraction tax receipts in essential infrastructure and inform the Budget Section of fees, expenses, and charges the tribe imposes on the oil industry.

Senate Bill No. 2014 (2013) provided that within the oil extraction tax development fund, the portion to be allocated to the resources trust fund must be reduced by 5 percent and that amount must be transferred no less than quarterly into the renewable energy development fund, but not in an amount exceeding $3 million per biennium. In addition, one-half of 1 percent of the amount credited to the resources trust fund must be transferred no less than quarterly into the energy conservation grant fund, but not in an amount exceeding $1.2 million per biennium. The funding for renewable energy source development is to be administered by the Industrial Commission and the funding for programs for energy conservation development is administered by the Department of Commerce.

House Bill No. 1134 (2013) provided for a temporary exemption for oil and gas wells employing a system to avoid flaring. The bill provided that liquids produced from a collection system utilizing absorption, adsorption, or refrigeration are exempt from oil extraction tax for a period of two years and 30 days from the time of first production.

COAL PRODUCTION AND TAXATION

North Dakota's coal resources are in the form of lignite--a low-grade, low-sulfur coal. North Dakota mines produced 27,369 short tons of coal in 2013, ranking the state 9th among the 25 coal-producing states, pursuant to information published by the federal Energy Information Administration. Active coal mines in North Dakota include the Beulah Mine, Center Mine, Falkirk Mine, and Freedom Mine. The state also contains several coal-powered generation plants, the largest of which are the Coal Creek Station, Antelope Valley Station, Milton R. Young Station, Leland Olds Station, Coyote Station, and the Stanton Station. The North Dakota Geological Survey estimates that western North Dakota contains an estimated 351 billion tons of lignite and an estimated 25 billion tons of economically mineable coal.

Coal Severance Tax

The coal severance tax is imposed on the act of removing coal from the earth pursuant to Chapter 57-61. The tax is in lieu of both the sales and use taxes on coal and the property tax on minerals in the earth. Following a study conducted by the 1973-74 interim Finance and Taxation Committee, both the coal severance tax and the coal conversion tax were enacted in 1975. The coal severance tax currently applies to all coal severed for sale or industrial purposes, except coal used for heating buildings in the state, coal used by the state or any political subdivision of the state, and coal used in agricultural processing and sugar beet refining plants in the state or adjacent states. The tax is applied at a rate of 37.5 cents per ton. An additional two cents per ton tax is levied for the lignite research fund.

The revenue from the coal severance tax is deposited in the coal development fund and distributed to coal-producing counties (70 percent) according to the amount of coal each county produces and to the constitutional trust fund administered by the Board of University and School Lands (30 percent). The trust fund is used to supply loans to school districts for school construction and loans to cities, counties, and school districts impacted by coal development.

Senate Bill No. 2105 (2013) provided that during the first month of each calendar year beginning January 2014, the State Treasurer shall distribute funds to offset 50 percent of the county share of coal severance tax revenue allocated to a non-coal-producing county.

Coal Conversion Tax

The coal conversion tax is imposed in lieu of property taxes on coal conversion facilities pursuant to Chapter 57-60. The land on which the plant is located remains subject to property taxes. The coal conversion tax is applied as follows:

1. Electrical generating plants are subject to two separate levies. One levy is .65 mill times 60 percent of installed capacity times the number of hours in the taxable period and the other levy is .25 mill per kilowatt-hour of electricity produced for sale. Installed capacity means the rating shown on the nameplate assigned to the turbine of the power unit. The revenue generated from the .25 mill levy electrical generating plant production is deposited in the general fund. The revenue from the .65 percent mill levy on installed capacity is distributed to the general fund (85 percent) and to the county in which the electrical generating plant is located (15 percent).
2. A coal gasification plant is subject to a monthly tax measured by 13.5 cents per thousand cubic feet of gas produced for sale or 4.1 percent of gross receipts, whichever is greater. Plants converting coal to products other than gas are taxed at 4.1 percent of gross receipts. The tax rate for a coal beneficiation plant is 20 cents per ton of beneficiated coal produced for sale or 1.25 percent of gross receipts, whichever is greater. The revenue is distributed to the general fund (85 percent) and to the county in which the plant is located (15 percent).

Legislation in 2005 provided a sales tax and coal conversion tax exemptions and a reduced rate schedule for coal conversion facilities that engage in an environmental upgrade and repowering of a power plant. The bill defined environmental upgrade as an investment of more than $25 million in machinery, equipment, and related facilities for reducing emissions or increasing efficiency. The bill defined repowering as an investment of more than $200 million to modify or replace the process used to convert lignite coal into electric power.

Legislation in 2009 provided that a coal conversion facility that achieves a 20 percent capture of carbon dioxide emissions during a taxable period receives a 20 percent reduction in the general fund share of the coal conversion tax, and an additional reduction of 1 percent for every additional 2 percentage points of its capture of carbon dioxide emissions, up to 50 percent reduction for 80 percent or more capture. The reduction is available for 10 years from the date of first capture or from the date the facility is eligible to receive the credit.

House Bill No. 1413 (2013) provided a sales and use tax exemption for property used to construct or expand a facility for use of coal gasification byproducts.

SIGNIFICANT 2015 LEGISLATION

Legislation in 2015 undertook a significant restructuring of oil extraction tax rates and exemptions and made several changes to tax distribution formulas.

House Bill No. 1476 provides for a restructuring of oil extraction tax rates and exemptions. The bill provides that current law regarding tax rates and the application of triggered incentives will remain in effect through December 31, 2015, subject to two exceptions:

1. Beginning December 1, 2015, if triggered rate exemptions are in effect, a 24-month exemption from the oil extraction tax will no longer be available for wells drilled and completed as a horizontal well; and

2. Oil produced from new wells, drilled and completed after April 21, 1987, will no longer be eligible for a reduced tax rate of 4 percent but will instead be taxed at the full rate of 6.5 percent. The remaining term of all other rate reductions or exemptions eliminated by the bill may not be carried forward past December 31, 2015.

Beginning on January 1, 2016, the rate of extraction tax on all oil will be reduced from 6.5 to 5 percent. This rate is subject to change depending on the average price of a barrel of crude oil. If the average price of a barrel of crude oil exceeds the trigger price of $90 for three consecutive months, the rate will increase to 6 percent on all oil extracted. The rate will remain at 6 percent until the average price of a barrel of crude oil falls below the trigger price of $90 for three consecutive months, at which time the rate will revert back to 5 percent on all oil extracted.

The bill eliminates several oil extraction tax exemptions. Production that will remain exempt from the oil extraction tax after December 31, 2015, includes:

1. Production that is exempt from the gross production tax imposed by Chapter 57-51;
2. Production from stripper well property or an individual stripper well;
3. Incremental production from a secondary recovery project for five years from the date incremental production begins;
4. Incremental production from a tertiary recovery project that does not use carbon dioxide for 10 years from the date incremental production begins; and
5. Incremental production from a tertiary recovery project which uses carbon dioxide for 5 years from the date incremental production begins if the project is located outside the Bakken and Three Forks Formations and 10 miles or more outside an established field with a pool including the Bakken or Three Forks Formations. A subsequent change was made for the tertiary recovery exemption under Senate Bill No. 2015.

Production that will continue to be subject to a reduced oil extraction tax rate after December 31, 2015, includes production from wells drilled and completed outside the Bakken and Three Forks Formations and 10 miles or more outside an established field that includes either formation. The first 75,000 barrels of oil produced during the first 18 months after completion are subject to a reduced tax rate of 2 percent on the gross value at the well of oil extracted.

Exemptions that the bill eliminates after December 31, 2015, include exemptions that are dependent on the average monthly comparison price of a barrel of oil dropping below the trigger price in current law for five consecutive months, specifically:

1. A 15-month exemption on the initial production from a vertical well;
2. A 24-month exemption on the initial production from a horizontal well;
3. An exemption on all oil recovered during the testing period prior to well completion;
4. A 12-month exemption on production from a qualifying well that was worked over;
5. A 10-year exemption on production from a certified two-year inactive well; and
6. A nine-month exemption on production from a certified horizontal re-entry well.

In addition, a 60-month exemption on the initial production from wells drilled and completed before July 1, 2013, on nontrust lands within the boundaries of an Indian reservation or on lands held in trust by the United States for an individual Indian or tribe, and wells drilled and completed before July 1, 2013, on lands held by an Indian tribe if the interest was in existence on August 1, 1997, will no longer be in effect after December 31, 2015.

Rate reductions that will no longer be in effect after December 31, 2015, include rate reductions dependent on the average monthly comparison price of a barrel of oil dropping below the trigger price in current law for five consecutive months. These reductions currently bring the 6.5 percent tax rate down to 4 percent on:

1. Oil produced from a vertical well completed after April 27, 1987, following the first 15 months of exempt production;
2. Oil produced from a horizontal well completed after April 27, 1987, following the first 24 months of exempt production;

3. Oil produced from a qualifying secondary or tertiary recovery project certified by the Industrial Commission after June 30, 1991; and
4. Incremental oil produced from a qualifying secondary or tertiary recovery project, following the initial 5-year or 10-year exemption period.

In addition, production on which a rate reduction is dependent on the average price of a barrel of oil falling below $55 for one month will no longer be in effect after December 31, 2015. This reduction currently brings the 6.5 percent tax rate down to 2 percent on the first 75,000 barrels, or the first $4.5 million of gross value at the well, whichever is less, of oil produced during the first 18 months after completion. This rate reduction only applies to horizontal wells drilled and completed after April 30, 2009, and before July 1, 2015.

Senate Bill No. 2015 further amended House Bill No. 1476 to remove any references to whether carbon dioxide is used in a tertiary recovery project for purposes of determining the duration for which the oil extraction tax exemption will apply to incremental production. The bill also provided that incremental production from a horizontal well drilled and completed within the Bakken and Three Forks Formations is not exempt from oil extraction tax from July 1, 2015, through June 30, 2017, but is thereafter exempt for a period of five years from July 1, 2017, or the date incremental production begins, whichever is later.

House Bill No. 1176 provides for adjustments to the distribution formula for oil and gas gross production tax collections. The bill makes the following changes to the distribution of revenues from the first 1 percent of the oil and gas gross production tax:

1. For the period beginning September 1, 2015, and ending August 31, 2017, a total of $375,000 shall be allocated per fiscal year to hub cities located in oil-producing counties for each full or partial percentage point of oil- and gas-related employment, and for allocations for the period beginning August 31, 2017, a total of $375,000 shall be allocated per fiscal year to hub cities located in oil-producing counties for each full or partial percentage point of private employment engaged in the mining industry;
2. For the period beginning September 1, 2015, and ending August 31, 2017, a total of $250,000 shall be allocated per fiscal year to hub cities located in non-oil-producing counties for each full or partial percentage point of oil- and gas-related employment, and for allocations for the period beginning August 31, 2017, a total of $250,000 shall be allocated per fiscal year to hub cities located in non-oil-producing counties for each full or partial percentage point of private employment engaged in the mining industry;
3. For the period beginning September 1, 2015, and ending August 31, 2017, a total of $125,000 shall be allocated per fiscal year to hub city school districts located in oil-producing counties for each full or partial percentage point of oil- and gas-related employment, and for allocations for the period beginning August 31, 2017, a total of $125,000 shall be allocated per fiscal year to hub city school districts located in oil-producing counties for each full or partial percentage point of private employment engaged in the mining industry;
4. A total of $1.5 million per fiscal year shall be allocated to an oil-producing county that received between $5 million and $30 million of allocations, for further distribution to school districts;
5. An amount not exceeding $140 million for the 2015-17 biennium shall be credited to the oil and gas impact grant fund, and an amount not exceeding $100 million per biennium thereafter; and
6. An amount of 8 percent of revenues from the first 1 percent of oil and gas gross production tax, but not in an amount exceeding $20 million per fiscal year, or $40 million per biennium, shall be credited to the North Dakota outdoor heritage fund.

For distribution of revenues from the remaining 4 percent of the oil and gas gross production tax, the bill makes the following changes:

1. Of the annual revenue collected in each oil-producing county in excess of $5 million, 30 percent, rather than the current 25 percent, shall be allocated to each oil-producing county which will reduce the state's share to 70 percent;
2. In determining the percentage of an oil-producing county's revenues that will be distributed to various political subdivisions, a county's classification as a county receiving less than $5 million in allocations, or $5 million or more in allocations, is based on the allocations a county received in state fiscal year 2014, rather than the most recently completed state fiscal year; and

3. Hub city school districts must be omitted from distributions otherwise made to school districts from allocations to an oil-producing county that received less than $5 million in allocations in state fiscal year 2014.

The bill also expands the reporting requirements for boards of county commissioners in each county receiving an allocation. The bill requires that in addition to reporting the county's statement of revenues and expenditures, the board must also report the amounts allocated to the county's general fund and to townships within the county, and include the amounts expended from these allocations and the purposes of the expenditures. The bill also creates similar reporting requirements for each school district receiving an allocation.

Senate Bill No. 2226 imposes additional requirements on state-tribal oil and gas tax agreements by requiring that agreements be confirmed by a majority of members elected to the House of Representative and the Senate, by limiting agreements to a duration of no more than 16 years following the agreement's effective date, and by requiring that each agreement contain an expiration date which falls on March 31 of an odd-numbered year. The bill expands the scope of the parties who may enter into an agreement by allowing the Governor to enter into agreements with the Standing Rock Sioux Tribe and the Turtle Mountain Band of Chippewa Indians. The bill provides that any aspect of an agreement which currently applies within the exterior boundaries of a reservation also applies in an equal manner to trust properties outside reservation boundaries, which are described as those lands held in trust by the United States for any Indian tribe or owned by an Indian tribe or tribal member subject to a restriction against alienation imposed by the United States. The bill also designates the venue for any dispute arising from a revenue sharing agreement. The changes are effective for agreements entered into after July 31, 2015.

House Bill No. 1377 creates a political subdivision allocation fund for purposes of allocating oil and gas tax revenues to political subdivisions in oil-producing counties. The bill directs that biennial revenues from oil and gas taxes designated for deposit in the general fund be deposited as follows through June 30, 2017:

1. The first $200 million will continue to be deposited into the general fund;
2. The next $300 million, rather than the next $341,790, will be deposited into the tax relief fund rather than into the property tax relief sustainability fund, which the bill eliminates;
3. The next $100 million will continue to be deposited into the general fund;
4. The next $100 million will continue to be deposited into the strategic investment and improvements fund;
5. The next $22 million will continue to be deposited into the state disaster relief fund, but not in an amount that would bring the unobligated balance in the fund to more than $25 million; and
6. Rather than depositing all additional revenues into the strategic investment and improvements fund, only 70 percent of additional revenues shall be deposited into the fund with the remainder deposited into the newly created political subdivision allocation fund.

The bill provides that revenues designated for deposit after June 30, 2017, shall be deposited as follows:

1. The first $200 million into the general fund;
2. The next $300 million into the tax relief fund;
3. The next $100 million into the general fund;
4. The next $100 million into the strategic investment and improvements fund;
5. The next $22 million into the state disaster relief fund, but not in an amount that would bring the unobligated balance in the fund to more than $25 million; and
6. Any additional revenues shall be deposited into the strategic investment and improvements fund.

House Bill No. 1409 increases the funding for the North Dakota outdoor heritage fund from 4 to 8 percent of the remaining amount available from a one-fifth share of oil and gas gross production tax revenues. The bill also increases the maximum allowable allocation to the fund per state fiscal year from an amount not exceeding $15 million to an amount not exceeding $20 million. The per biennium limit is also increased from an amount not exceeding $30 million to an amount not exceeding $40 million.

House Bill No. 1032 increases transfers of oil and gas gross production tax revenues to the abandoned oil and gas well plugging and site reclamation fund from $5 million to $7.5 million per fiscal year and increases the maximum allowable balance of the fund from $75 million to $100 million if the triggered exemption for new wells under Section 57-51.1-03 is not in effect for the period of July 1, 2015, through December 31, 2015.

Senate Bill No. 2039 provides that any income, including interest payments on loans, from the coal development trust fund be deposited in the school construction assistance loan fund, rather than the general fund, after any amounts needed to replace uncollectible loans made from the fund are deducted.

Senate Bill No. 2318 provides that a carbon dioxide capture system located at a coal conversion facility and any equipment directly used for enhanced recovery of oil or natural gas is exempt from all ad valorem taxes, and exempt from the coal conversion facilities privilege tax. The exemption does not apply to the land on which the capture system or equipment is located. The bill also creates a sales and use tax exemption for materials used to construct or expand systems relating to the use of carbon dioxide for enhanced oil or gas recovery.

Senate Bill No. 2036 provides an exemption from the coal conversion facilities privilege tax for beneficiated coal produced for use within a coal conversion facility. The bill also extends the severance tax exemption available for coal purchased for improvement through beneficiation which is then used in an agricultural commodity processing facility or in any facility owned by the state or a political subdivision. This exemption was scheduled to expire on July 1, 2015. The bill also extends sales and use tax exemptions.

Senate Bill No. 2172 allows for oil and gas gross production tax and oil extraction tax revenue collected by the Tax Commissioner to be allocated by the State Treasurer according to the distribution and allocation rules in place at the time the revenues were received by the Tax Commissioner rather than applying the distribution and allocation rules that were in place at the time the taxable production was produced.

Senate Bill No. 2343 requires the Industrial Commission to provide a report to the Legislative Assembly, or the Budget Section if the Legislative Assembly is not in session, on the fiscal effect of any order, regulation, or policy regarding the control of gas and oil resources estimated to have a fiscal effect in excess of $20 million in a biennium. The reporting requirements do not apply to spacing unit orders.

Senate Bill No. 2318 creates a sales and use tax exemption for materials used to construct or expand a system for compressing, gathering, collecting, storing, transporting, or injecting carbon dioxide for use in enhanced recovery of oil or natural gas. The bill also provides for a coal conversion facilities privilege tax exemption for carbon dioxide capture systems, which is described in the mineral taxes section of this title summary.

Senate Bill No. 2036 extends the sales tax exemption available on gross receipts from the initial sale of beneficiated coal that is not subject to tax under Chapter 57-60. The exemption was scheduled to expire on July 1, 2015. The bill extends the sales and use tax exemption available for certain purchases made by power plants classified as electrical generating plants which convert beneficiated coal into electric power. This exemption was scheduled to expire on July 1, 2017. The bill also extends the severance tax exemption for coal used in certain plants and provides an exemption from the coal conversion facilities privilege tax for beneficiated coal produced for use within a coal conversion facility, which are described in the mineral taxes section of this title summary.

Senate Bill No. 2035 creates a sales and use tax exemption for materials used to construct a fertilizer or chemical processing facility. The bill defines fertilizer or chemical processing facility and requires that any facility seeking to use the exemption receive an air quality permit, or notice of completion for an air quality permit application, from the State Department of Health before July 1, 2019. The bill requires the documentation be submitted to the Tax Commissioner prior to the facility receiving an exemption. To receive the exemption at the time of purchase, the facility owner must receive a certificate from the Tax Commissioner stating the materials the facility owner intends to purchase qualify for the exemption. If a certificate is not received before the purchase, the facility owner must pay the tax and apply for a refund. The exemption is retroactively effective and applies to taxable events occurring after December 31, 2014.

Senate Bill No. 2037 expands the items included in the definition of machinery and equipment used to produce coal from a new mine for purposes of a sales tax exemption and allows for purchases of machinery or equipment made after December 31, 2010, to produce coal either directly or indirectly, to qualify for a refund of sales or use tax paid. The bill restricts the interest allowed on any refunds of sales and use tax paid to interest on purchases made before July 1, 2015. The bill applies retroactively to purchase of machinery or equipment made after December 31, 2010. The bill also provides for payments in lieu of property taxes for certain centrally assessed wind turbine electric generating units and an income tax credit for installation of qualifying wind energy devices, which are described in the property taxes and income taxes sections of this title summary.

House Bill No. 1358 includes associated above ground equipment within the definition of underground gathering pipeline. The bill requires operators of new underground gathering oil or produced water pipelines to provide the Industrial Commission engineering construction design drawings and specifications, a list of independent inspectors and a plan for leak protection and monitoring. The bill requires a certificate of hydrostatic or pneumatic testing by an independent inspector for these pipelines. The bill provides authority for requiring bonds for these pipelines. The bill allows a landowner to request a mandatory review of the temporarily abandoned status of a well that has been in that status for at least seven years. The bill allows the release of information on volumes injected into a saltwater injection well and information from a spill report for a spill of more than 10 barrels of fluid not contained on the well site. The bill allows up to $1.5 million per biennium in the abandoned oil and gas well plugging and site reclamation fund to be used for reclamation and restoration of land and water resources impacted by oil and gas development before August 1, 1983, in the priority of eligible land and water, publicly owned land, administrative expenses, and demonstration projects of reclamation and water quality control program methods. The bill allows a landowner who has obtained information in the geographic information system database to share the information. The bill provides for a transfer of $1.5 million from the abandoned oil and gas well plugging and site reclamation fund to the oil and gas research fund for a special project for the analysis of crude oil and produced water pipeline construction and provides for adoption of rules for leak detection and monitoring.

PRIOR LEGISLATIVE MANAGEMENT STUDIES

The 2013-14 Energy Development and Transmission Committee was tasked with undertaking the study provided in Section 8 of 2013 House Bill No. 1198, which directed the study of the likely changes to oil industry practices, production, impacts, and tax policy in the foreseeable future. The study directed the Legislative Management to obtain the services of an independent consultant with demonstrated insight into current and future production advances, including use of carbon dioxide and water or other means of enhancing production; effects of mature production areas on state and local tax policy; future infrastructure needs; and environmental considerations.

The committee made a request for proposals and received two proposals. The committee chose KLJ to conduct the study. The study contained three progress updates and a final report. The final report provided an economic analysis of the Bakken and Three Forks Formations; information on the socioeconomic impacts of employment, population projections, and housing needs; and information on carbon dioxide enhanced oil recovery.

The study of 2014-19 trends predicted that North Dakota drilling levels will remain stable, North Dakota production could reach 2 million barrels per day, oil prices will average between $70 and $100 per barrel, and the global need for oil will absorb oil produced from United States shale. The study also identified technology changes that could affect production including three dimensional field development, batch development, adequately sized gathering systems, reliable systems to move product to market, field consolidation, and automation.

The study highlighted environmental changes that could affect production including state regulations in border states, tribal regulations and development requirements, flaring regulations, and local regulation of crude oil trains. Policy issues that could affect production were also identified as potential crude export rule changes, the tightening of oil supply due to international conflict, and federal regulation changes on depletion allowances.

The committee was informed that enhanced oil recovery is the next phase of development for the Bakken. Around 5 to 6 percent of oil is recovered from the Bakken and an increase in production of 1 percentage point would provide 3 to 5 billion barrels of oil. Carbon dioxide is the leader for enhanced oil recovery because carbon dioxide mollifies Bakken oil very well in tests but the technology is not expected to be employed at high rates and will not substantially affect oil development in the next five years. Nitrogen was leading for a few years but has been found to be not compatible with Bakken oil. The committee was informed that there are pilot projects in the Parshall field using water. The committee was informed that the demand for carbon dioxide to fully apply enhanced oil recovery in the Bakken Formation is 2 to 3.2 billion tons. This would conservatively yield 4 to 7 billion barrels of incremental oil. The main concern of the oil industry is not the technology, but having enough carbon dioxide. The output of carbon dioxide of all the power plants in this state is 33 million tons.

The committee received testimony indicating the Great Plains Synfuels Plant is the only commercial coal gasification facility producing synthetic natural gas. The plant produces carbon dioxide, which is transported to Canada for sequestration. The facility receives a tax credit. If there is a 20 percent reduction in carbon dioxide emissions, there is a 20 percent reduction in coal conversion taxes that go to the state, not counties. The incentive is $2.2 million for 2010, $2.5 million for 2011, $2.8 million for 2012, $2.6 million for 2013, and $1.78 million for January through June 2014. The coal conversion taxes paid by the facility were $8.1 million in 2013. The committee learned the Dakota Gasification contract for the sale of carbon dioxide expires in two years and older oilfields near the existing carbon dioxide pipeline are capable of using carbon dioxide for enhanced oil recovery.

The committee was also informed that industry is catching up on infrastructure because of the provision of new capital, including capital to midstream pipeline companies, but the infrastructure is at least one year behind. The committee was informed it is harder to increase gas gathering than oil gathering capacity. Most gas gathering systems are overlaying two times the infrastructure to increase capacity. Oil gathering is designed with excess capacity, and there are other methods of increasing capacity. Large oil transmission lines are being built, and gathering systems will have multiple choices. The committee was informed that because of batch drilling and large initial productions there will be issues with pipeline capacity.

POSSIBLE STUDY APPROACH

In addressing the assigned studies, the committee may consider the following approach:

1. Complete and approve a request for proposals to solicit the services of consultants to assist in the study and analysis of relevant subject matter.
2. Build on the information received by the 2013-14 interim Energy Development and Transmission Committee, by:
   a. Receiving an update from presenters who provided information to the Energy Development and Transmission Committee relevant to the assigned studies;
   b. Receiving an update on the status of any federal law noted in the prior study, or that may have developed following the study, relevant to the assigned studies; and
   c. Receiving an update on any infrastructure or energy development projects that may have been completed or commenced following the 2013-14 interim study.
3. Solicit testimony and information from agencies, groups, and individuals involved in regulating various aspects of the energy industry and administering taxes and fees.
4. Solicit testimony from various industry representatives abreast with current developments that may be relevant to the committee's studies.

ATTACH:2