Senate Select Committee on Energy and the Environment

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Senate Select Committee on Energy and the Environment

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Senate Select Committee on Energy and the Environment

Committee Charge

The Senate Select Committee on Energy and the Environment was convened pursuant to Senate Rule 22(c), which allows the Senate President to create a committee to review a single specified subject matter area or issue during a regular legislative session. Pursuant to the rule, the President appointed five members to the committee.

According to the Senate President's February 28, 2018, letter, the purpose of the Select Committee on Energy and the Environment (select committee) was to hold hearings on a wide range of energy and environmental issues facing Colorado, including: supporting energy jobs and revenues while also protecting the natural places that make Colorado special; the changing regulatory landscape; and pursuing an all-of-the-above approach to energy development in Colorado.

The committee met four times during the 2018 legislative session. The committee did not recommend any legislation.

Committee Activities

During the 2018 legislative session, the committee met four times. The committee heard presentations from energy researchers, producers, and local government officials. The committee received briefings on:

- the Jordan Cove Liquefied Natural Gas project;
- taxes collected on oil and gas production, including the Conservation Mill Levy, the Ad Valorem Tax, and the Severance Tax;
- Public Service Company of Colorado's Colorado Energy Plan; and
- recent changes to state and federal laws affecting Colorado's mining economy.

The committee heard from representatives of Jordan Cove Liquefied Natural Gas LLC, Colorado Petroleum Council, Extraction Oil and Gas, Anadarko Petroleum, Coalition of Ratepayers, and the Colorado Mining Association. Presentations were focused on energy and environmental issues in the state of Colorado, but also provided the committee with information regarding national and international issues.

Jordan Cove Liquefied Natural Gas project

Overview. The Senior Project Advisor for Jordan Cove Liquefied Natural Gas (LNG) LLC., briefed the committee on the Jordon Cove LNG Facility and discussed its potential benefits to Colorado natural gas producers. LNG is natural gas that has been cooled to -260°F, which converts it to a liquid and makes it easier to transport long distances. Jordan Cove LNG is located on Coos Bay, Oregon. The Jordan Cove LNG project will have an initial liquefaction design capacity of 7.8 million metric tons per annum (mtpa). When completed, the Pacific Connector Pipeline will carry natural gas to the Jordan Cove LNG Terminal, where the natural gas will be liquefied, stored in cryogenic tanks, and loaded onto ocean-going vessels.

The Jordan Cove project will enable natural gas produced in western Canada and the United States' Rocky Mountains to serve markets in Asia, southern Oregon, and, potentially, Hawaii and Alaska. In 2016, the owner of Jordan Cove LNG – Veresen Inc. – announced that it reached a preliminary agreement with Japan's ITOCHU Corporation for the purchase of 1.5 mtpa of natural gas liquefaction capacity for an initial term of 20 years. Veresen Inc., also reached a preliminary agreement with Japan's JERA for the purchase of 3 mtpa of Jordan Cove LNG terminal's liquefaction capacity. JERA is a joint venture involving Tokyo Electric Power Company, Inc. (TEPCO) and Chubu Electric Power Co., Inc.

Status. In 2016, the Federal Energy Regulatory Commission (FERC) denied the initial applications of Jordan Cove LNG and Pacific Connector Gas Pipeline. FERC determined that the applicant failed to prove that the public benefits of the project outweighed its adverse effects on landowners. On September 21, 2017, Veresen Inc. filed a new FERC application for the construction and operation of Jordan Cove and the Pacific Connector. The applicant requested that FERC issue a draft environmental impact statement for the project in 2018, and its final decision by the end of 2018. If the applications are approved, the projects would begin operations in 2024.

Economic benefits. The LNG export terminal and the Pacific Connector will cost approximately $10 billion to construct. Additionally, the project is expected to generate approximately $60 million in annual property taxes, including $20 million related to the Pacific Connector in the counties through which the pipeline traverses. The project will employ approximately 6,000 workers during construction and provide more than 200 permanent jobs upon completion.

Potential benefits to natural gas producers in Colorado. County commissioners from Mesa and Rio Blanco counties testified about natural gas resources in northwest Colorado – including the Piceance Basin – and how the Jordan Cove LNG could provide a long-term market for these resources. The Piceance Basin covers all or part of seven counties in western Colorado, north and east of Grand Junction. According to the U.S. Geological Survey, the Mancos shale formation in the Piceance Basin holds about 66.3 trillion cubic feet of gas. A trillion cubic feet of natural gas is enough to heat 15 million homes for a year. The basin currently has multiple well sites, pipelines, and processing plants in place from a previous development of a shallower gas formation that reduce the need for new infrastructure and land disturbances to access gas in the Mancos shale formation.

Taxes Collected on Oil and Gas Production

The committee received a briefing from representatives of Extraction Oil and Gas and Anadarko Petroleum who identified state and local taxes assessed on oil and gas production and explained how these moneys are used to fund government services. Following is a summary of the taxes and allocations addressed in their presentations.

Ad valorem taxes on oil and gas. Counties, municipalities, school districts, and special districts may assess an ad valorem tax, also known as a property tax, on oil and gas production. Revenue from property taxes are used to support local government services. Property taxes are based on the prior year's production and paid the year after they are assessed. For example, 2016 property taxes are based on 2015 production. Property tax bills for 2016 are mailed in January 2017 and paid in the first half of the year. This schedule causes a lag between when the production occurs and when property taxes are assessed. The assessed value for oil and gas production represents 87.5 percent of its actual value.

Severance taxes. The severance tax is paid by producers of oil, gas, coal, and other minerals. According to the Colorado Legislative Council Staff March 19, 2018, Economic and Revenue Forecast, severance taxes from oil and natural gas are forecast to total $62.2 million in FY 2017-18 and $122.3 million in FY 2018-19. Most of severance tax revenue is collected from oil and gas production. Severance tax revenue is volatile because the value of natural resources severed from the earth fluctuates considerably with changes in commodity prices. The severance tax structure further amplifies the boom-bust cycle of the industry.

Ad valorem tax credit. Each year Colorado operators may claim a tax credit equal to 87.5 percent of the property taxes paid on the prior year's oil or natural gas production as an offset to their current year's severance tax liability. This property tax credit, also called the ad valorem credit, is available on all oil and gas wells that are not classified as stripper wells. Because the credit is based on the prior year's production value, the credit increases the volatility of oil and gas severance tax revenue. If prices rise from one year to the next, operators will have a relatively higher severance tax liability in the current year, and a relatively lower property tax offset. Conversely, if prices are falling, operators have a relatively lower current year severance tax liability and a relatively higher property tax credit. Over the last nine years, the value of the ad valorem tax credit claimed by oil and gas operators has averaged $181.7 million annually, ranging from a high of $296.9 million in 2015 to a low of $83.0 million in 2016. The ad valorum credit has reduced severance taxes by as little as 38.9 percent in 2008 and by as much as 92.4 percent in 2015.

Allocation of severance taxes. State law provides that 50 percent of severance tax revenues are credited to the Severance Tax Trust Fund and 50 percent of the revenues are credited to the Department of Local Affairs for grants and distributions to local governments impacted by mining activities. Of the revenue credited to the Severance Tax Trust Fund, 50 percent is allocated to the Perpetual Base Fund of the Severance Tax Trust Fund (or 25 percent of total severance tax revenues) for use by the CWCB to build water projects. The other 50 percent of Severance Tax Trust Fund revenues (or 25 percent of total severance tax revenues) are allocated to the Operational Account to fund programs that "promote and encourage sound natural resource planning, management, and development related to minerals, energy, geology, and water."

Conservation mill levy. The Colorado Oil and Gas Conservation Act directs the Colorado Oil and Gas Conservation Commission to set the conservation mill levy, an amount that may not exceed one and seven-tenths mills.[1] The conservation mill levy is assessed on the market value of all oil and gas

[1]Section 34-60-122 (1)(a), C.R.S.

at the well. Revenue from the conservation mill levy funds the Environmental Response Fund. These moneys may be used to investigate, prevent, monitor, or mitigate conditions that threaten to cause, or that actually cause, a significant adverse environmental impact on any air, water, soil, or biological resource. The revenues received from the conservation mill levy and proceeds from the tax on the severance of oil and gas provide the majority of funding for the Colorado Oil and Gas Conservation Commission's operations. Over the past three fiscal years, expenditures from the Environmental Response Fund have generally exceeded revenue by $2 to $3 million per year. On January 29, 2018, the commission approved an increase of the conservation mill levy to be at least $0.0011 per dollar value. The last time that commission changed the conservation mill levy was in 2007, when it increased the mill levy from five-tenths mills to seventh-tenths mills.

Public Service Company of Colorado's Colorado Energy Plan

The committee received a briefing from a representative of the Coalition of Ratepayers concerning the Public Service Company of Colorado's Colorado Energy Plan and its possible effect on electricity rates in Colorado. Following is brief summary of the plan and the Public Utility Commission electric resource planning process. It also discusses Governor Hickenlooper's executive order supporting Colorado's clean energy transition, which the plan seeks to implement.

Public Utility Commission review of electric resource plans. Public Utilities Commission (PUC) rules establish a process to determine the need for additional electric resources by electric utilities and to develop cost-effective resource portfolios to meet such need reliably.[2] State law also requires the PUC to give the fullest possible consideration to the cost-effective implementation of new clean energy and energy-efficient technologies in its consideration of generation acquisitions for electric utilities. It is also required to consider the likelihood of new environmental regulations and the risk of higher future costs associated with the emission of greenhouse gases such as carbon dioxide when it considers utility proposals to acquire electric generation resources.[3]

In the first phase of the PUC resource planning process, a utility is required to file an electric resources plan (ERP) which includes information about the utility's electric system, an assessment of the need for additional resources, and the utility's plan to acquire those resources.[4] The PUC then determines the need for new resources and the general methodology and assumptions the utility is to use in evaluating generation resources during the acquisition phase of the planning process. Upon completion of a competitive acquisition process, the PUC rules require a utility to post on its website a summary of all bids and utility proposals, including bidder name, utility cost, generation technology type, size of facility, contract duration, and whether or not the bid included a utility purchase option.[5]

Public Service Company of Colorado 2016 Electric Resource Plan. Public Service Company of Colorado (Public Service) is a subsidiary of Xcel Energy Inc. Xcel Energy is an investor-owned electricity and natural gas company with regulated operations in eight Midwestern and Western states, including Colorado where it provides electric utility service to approximately 1.5 million

[2] 4 CCR 723-3 3600 *et seq.*
[3] Section 40-2-123 (1), C.R.S.
[4] 4 CCR 723-3 3604
[5] 4 CCR 723-3 3613 (k).

customers. On May 27, 2016, Public Service submitted its 2016 Electric Resource Plan (2016 ERP) pursuant to the PUC's Electric Resource Planning Rules. The 2016 ERP provides the framework for how the company assesses the need for future electric supply resources, as well as a plan for acquiring those resources. The 2016 ERP identifies a potential need for additional electric power supplies of approximately 600 megawatts (MW of capacity) by 2023. Public Service estimated that its actual capacity need in 2023 could range from as low as approximately 200 MW to as high as approximately 800 MW.

The Public Service 2016 ERP proposes using a competitive acquisition process to fill the future capacity and energy needs of the system over an eight-year resource acquisition period. The cost effectiveness of the plan depends, in part, upon the continuation of low natural gas prices and the federal Production Tax Credit for wind and the federal Investment Tax Credit for solar. It also assumes the cost of solar generation will continue to decrease and that the distribution grid will be enhanced to enable additional renewable energy generation. The federal renewable electricity production tax credit is an inflation-adjusted per-kilowatt-hour (kWh) tax credit for electricity generated by qualified energy resources and sold by the taxpayer to an unrelated person during the taxable year. The solar investment tax credit is a tax credit that can be claimed on federal corporate income taxes for 10 percent of the cost of solar photovoltaic systems.

Colorado Energy Plan. On March 14, 2018, the PUC granted a request to allow Public Service to model and present its Colorado Energy Plan (CEP) portfolio for consideration as part of its 2016 ERP. According to Public Service, the CEP would enable the utility to develop a cleaner energy mix and reduce its carbon emissions in Colorado. If implemented, the utility expects to obtain 55 percent of its electricity from renewable energy sources by 2026 and reduce carbon emissions by 60 percent from 2005 levels. Under the CEP, Public Service is proposing to retire 660 megawatts at two coal-fired generating units at the Comanche power plant in Pueblo. It also seeks to add new wind and solar generation facilities and additional natural gas-fired facilities to replace the retired coal capacity. According to Public Service, the CEP is not expected to increase electric rates and that the plan is consistent with Governor Hickenlooper's executive order supporting Colorado's clean energy transition.[6]

Governor's Executive Order supporting Colorado's Clean Energy Transition. On July 11, 2017, Governor Hickenlooper issued Executive Order D 2017-015, supporting Colorado's Clean Energy Transition, which sought to, among other things, have "[a]ppropriate state agencies … work strategically with any interested electric utilities or cooperatives that, on a voluntary basis, would like to maximize its use of renewable energy, while maintaining reliability and without increasing costs to customers." The executive order further set forth greenhouse gas emissions reduction goals on an economy-wide basis and, specific to the electricity sector, carbon dioxide emission reduction targets of 25 percent from 2012 levels by 2025 and 35 percent from 2012 levels by 2030.

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[6]Summary of the supporting testimony of David L. Eves in the matter of the application of Public Service Company of Colorado for approval of its 2016 Electric Resource Plan (Proceeding No. 16A-0396E).

Recent Changes to State and Federal Laws Affecting Colorado's Mining Economy

A representative of the Colorado Mining Association briefed the committee on Colorado's mining economy and discussed the effect of state and federal regulations. Additional information about these regulations is provided below.

Financial responsibility requirements for hardrock mining facilities. Section 108(b) of the federal Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), also known as Superfund, directs the U.S. Environmental Protection Agency (EPA) to develop regulations that require classes of facilities to establish and maintain evidence of financial responsibility consistent with the degree and duration of risk associated with the production, transportation, treatment, storage, or disposal of hazardous substances. The law further requires that the level of financial responsibility be established to protect against the level of risk the President believes is appropriate, based on factors including the payment experience of the fund. The President's authority under this section for non-transportation-related facilities has been delegated to the EPA Administrator.

On January 11, 2017, the EPA published proposed financial responsibility requirements applicable to hardrock mining facilities. The purpose of the proposed rule was to provide funds to address CERCLA liabilities at sites, and to create incentives for sound practices that minimize the likelihood of need for a future CERCLA response. On December 1, 2017, the EPA Administrator signed a federal register notice that the agency will not promulgate the new rule because the rulemaking record does not support imposing additional financial responsibility requirements on current hardrock mining operations.

Repeal of the federal Clean Power Plan. In 2015, the EPA finalized rules to reduce carbon emissions from power plants. These rules, also known as the Clean Power Plan, established state-by-state targets for carbon emissions reductions, and offered a framework under which states were allowed to meet those targets. Options for cutting emissions included investing in renewable energy, energy efficiency, natural gas, and nuclear power, and shifting away from coal-fired power. Implementation of the Clean Power Plan was expected to reduce national electricity sector carbon emissions by an estimated 32 percent below 2005 levels by 2030.

On March 28, 2017, President Trump issued an executive order that directed agencies responsible for regulating domestic energy production to submit plans to the White House, which will identify and propose measures to revise or rescind regulatory barriers that impede progress toward energy independence.[7] The order rescinds several Obama – era executive orders and policies related to climate change. It also directs the EPA Administrator and the Secretary of the Interior to review, and if necessary, revise or rescind, several regulations that may place unnecessary, costly burdens on coal-fired electric utilities, coal miners, and oil and gas producers. On November 8, 2017, the EPA issued a proposed rule to repeal the Clean Power Plan and rescind the accompanying legal memorandum.[8] The deadline to submit written comments on the proposed rule was January 16, 2018.

[7]Executive Order 13783.
[8]Federal Register, Vol. 82, No. 215 (November 8, 2017).

Liability protections for abandoned mine cleanup. According to the Colorado Division of Reclamation, Mining, and Safety in the Colorado Department of Natural Resources, there are more than 22,000 abandoned hard rock mines in Colorado and at least 500 of these mines are polluting streams. Because abandoned mines do not have an identifiable and financially viable owner or operator, their cleanup falls to the government, or the pollution continues unabated because state and federal resources are limited. Environmental organizations and other private entities with expertise in mine reclamation have expressed an interest in helping to remediate abandoned hard rock mines. However, these parties, commonly known as Good Samaritans, are discouraged from remediating abandoned mines because of the threat of liability under the federal Clean Water Act (CWA) for such third-party reclamation efforts. Specifically, the CWA prohibits the discharge of pollutants into the nation's waters without a permit. No exceptions exist for discharges from abandoned mines that have been remediated by Good Samaritans. Several bills have been introduced in Congress to provide liability protections for abandoned mine cleanup. However, none of these bills have been enacted.

Implementation of Clean Air-Clean Jobs Act. In 2010, the Colorado legislature enacted the Clean Air - Clean Jobs Act[9] in anticipation of emission requirements under the federal Clear Air Act. Under this law, all regulated utilities that own or operate coal-fired electric generating units were required to submit to the PUC an emissions reduction plan for those units by August 15, 2010. The plans were required to cover 900 MW or 50 percent of the utility's generating capacity, whichever is less. The plans were to give primary consideration to conversion of the units to natural gas or other low-emission resources, and could not cover any units already planned for retirement prior to January 1, 2015. The plans were to be fully implemented by December 31, 2017. The act required the Air Quality Control Commission to incorporate the reductions derived from the plans into the regional haze element of the state implementation plan. Such plans are submitted to the EPA for approval to meet specific requirements of the federal Clean Air Act, including the requirement to attain and maintain the national ambient air quality standards.

According to Xcel Energy, implementation of the act enabled the utility to reduce emissions of sulfur dioxide and nitrogen oxides by 90 percent by retiring 702 MW of coal-fueled generation, including the coal-fueled unit at the Valmont Generating Plant, Arapahoe Plant units 3 and 4, and three coal-fueled units at the Cherokee Generating Plant. The utility replaced the retired generation facilities with a 569-MW natural gas plant built on the Cherokee site and switched a fourth unit at its Cherokee Plant from coal to natural gas. It also reduced emissions from 951 MW of coal-fueled generation by installing additional emissions controls.

[9]Section 40-3.2-201, *et seq.*, C.R.S.

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Resource Materials

Meeting summaries are prepared for each meeting of the committee and contain all handouts provided to the committee. The summaries of meetings and attachments are available at the Division of Archives, 1313 Sherman Street, Denver (303-866-2055). The listing below contains the dates of committee meetings and the topics discussed at those meetings. Meeting summaries are also available on our website at:

https://leg.colorado.gov/content/committees

Meeting Dates and Topics Discussed

March 15, 2018

- Presentation on the Jordan Cove Liquefied Natural Gas Project and what it means for Colorado (*Robert Braddock, Senior Project Advisor, Jordan Cove LNG LLC*)

March 22, 2018

- Briefing on oil and natural gas taxes assessed in Colorado (*Tracee Bentley, Executive Director, Colorado Petroleum Council, Blake Hill, Extraction Oil and Gas, and Travis Holland, Anadarko Petroleum*)

March 29, 2018

- Presentation on Public Service Company of Colorado's Clean Energy Plan (*Mike Nasi, Coalition of Ratepayers*)

April 26, 2018

- Presentation on Colorado's mining economy and recent changes to state and federal mining laws (*Stan Dempsey Jr., President, Colorado Mining Association*)