TOPIC PRIMER

CLIMATE CHANGE AND CARBON MITIGATION

LEGISLATOR NOTICE

The Legislative Services Division is required to offer a brief history on the subject matter of a bill draft request prior to drafting. (5-4-105, MCA; Chapter 309, Laws of 2017) The history must include related legislation introduced over the last five sessions and hyperlinks to the bill, hearing information, and fiscal notes. The legislation links below open to the page showing the status and history of bills introduced on this topic in the past. The bill text and any related fiscal notes can be accessed through the link at the top of that page.

Legislation can be complex and this history is not intended to be exhaustive. Please contact the drafter of the requested bill for more information.

Background Materials and Research

Topic Summary: The Environmental Quality Council (EQC) dedicated the largest portion of its time during the 2007-2008 interim to a study of issues related to climate change. The study required examination of the overall subject of climate change and how other states, at the time, were addressing the issue. A large portion of the study focused on a review of the Montana Climate Change Advisory Committee (CCAC) report released by the DEQ at the same time the EQC was conducting its review.

The CCAC report, titled "Montana Climate Change Action Plan," included a greenhouse gas inventory prepared for the DEQ by the Center for Climate Strategies (also discussed in the earlier section on air quality improvements). It provides a thorough look at emissions in Montana.

The inventory showed that activities in Montana account for about 37 million metric tons of carbon dioxide equivalent emissions, or 0.6 percent of all greenhouse gas emissions in the United States. Electricity use, transportation, and agriculture are the principal emissions sources. The combustion of fossil fuels for generating electricity used in Montana combined with the transportation sector accounted for about 50 percent of the gross greenhouse gas emissions in the state.30 Agricultural emissions are primarily methane and nitrous oxide from manure management, fertilizer use, and livestock. Other types of emissions are from households, large industry, commercial business, wastewater treatment operations, and the oil and gas industry.

The CCAC unanimously recommended that Montana extend the existing RPS to include requirements for 2020 and 2025. Using the inventory data, the CCS helped the CCAC identify a range of greenhouse gas mitigation options, using a combination of more than 250 existing state actions from across the country and Montana-specific actions, as determined by the CCAC. The CCAC concluded its work in 2007, and final recommendations were released in November 2007. The CCAC offered 54 recommendations broken down into five categories: Residential, Commercial, Institutional, and Industrial



(RCII); Energy Supply (ES); Transportation and Land Use (TLU); Agriculture, Forestry, and Waste Management (AFW); and Cross- Cutting Issues (CC).

The CCAC's overall recommendations document the opportunities for the state to continue strong economic growth by being more energy efficient, using more renewable energy sources, and increasing the use of cleaner transportation modes, technologies, and fuels. Some of the recommendations would have been implemented administratively, and some would have required legislation. Since the report was published, however, there has been limited action in implementing the recommendations, with a general focus on the need for legislation.

The 54 CCAC policy recommendations also did not reduce greenhouse gas emissions from electricity that is generated in Montana and exported out of state. Rather, the focus was based on consumption. As part of its interim work, the EQC reviewed all 54 recommendations included in the CCAC report. In conducting its 2007-2008 study and gathering public opinion on the subject, the EQC hosted a climate change survey, inviting the public to rank and comment on the CCAC's 54 recommendations. The survey garnered nearly 2,000 responses, and using that information, the EQC selected 15 of the recommendations for further study and discussion.

The 15 recommendations reviewed further by the EQC did not include any energy supply recommendations from the report. The committee did look at an RCII recommendation (RCII-8) to support renewable energy applications. The recommendation would have provided for 470 megawatts of combined heat and power, 4.5 megawatts of solar PV, and 30 megawatts of small wind by 2020. It included improving incentives and removing barriers to interconnection rules and net metering arrangements for combined heat and power and clean distributed energy.

After a thorough review of the 15 recommendations, EQC members reached a consensus on a series of topics to review even more in depth, but those topics did not include a focus on renewable energy or small renewable applications. EQC members focused on topics that included enhancing solid waste recovery or recycling opportunities; promoting local food and fiber; improving transportation system management or efforts to enhance mass transit and ensure adequate transportation planning; providing additional opportunities for low-income and rental housing energy efficiency and weatherization; expanding biomass opportunities; and reviewing requirements that new state buildings exceed current building codes or standards.

Montana's policymakers also have spent a great deal of time discussing carbon sequestration. Carbon capture and sequestration (CCS) is a process that involves capturing carbon dioxide at its sources and storing, or sequestering, it before it is released into the atmosphere. CCS has attracted interest because it allows for the continued use of fossil fuels at power plants and other large, industrial facilities while reducing the amount of carbon dioxide emitted to the atmosphere. Montana policy enacted on the topic includes property tax incentive for CCS equipment and requirements that certain new coal plants capture and sequester at least 50 percent of their carbon dioxide. Montana also has authorized the Montana Board of Oil and Gas Conservation to regulate CCS, declared pore space the property of the surface owner, authorized the state to assume liability for closed geologic storage sites, creates a geologic storage reservoir program fund, and provided for unitization for geologic storage.

In August 2015 the Environmental Protection Agency (EPA) finalized the Clean Power Plan to curb carbon dioxide emissions at existing fossil fuel-fired power plants. Under the authority of section 111(d) of the Clean Air Act, the Clean Power Plan consists of emission guidelines that direct states to submit their plans to comply with the established carbon emission reduction targets. The Clean Power Plan applied to affected fossil fuel-fired power plants that began construction on or before January 8, 2014. The EPA also proposed a federal plan to implement the emission guidelines in any state that does not submit



an approvable plan. Montana's DEQ is responsible for implementing Montana's strategy because of delegated authority under the Clean Air Act. The Clean Power Plan, however, is currently on hold and in court.

The EQC and the Energy and Telecommunications Interim Committee ETIC formed a subcommittee for the 2015-2016 interim in an effort to oversee the state's development of rules to comply with the federal Clean Power Plan, also referred to as the 111(d) rule. The committee work, however, was put on hold when the Power Plan was put on hold.

Legislative Services Division Materials:

Climate Change: An Analysis of Climate Change Policy Issues in Montana

Carbon Sequestration Study: An Analysis of geological and terrestrial carbon sequestration

Other Materials:

Montana's Clean Power Plan - DEQ

Montana Climate Assessment – Montana Institute on Ecosystems

Introduced Legislation

*Chapter number assigned means bill was passed and approved.

2017

Senate Bill No. 190 – (S) Died in Process -- AN ACT REQUIRING THE BOARD OF ENVIRONMENTAL REVIEW TO ADOPT RULES AND FEES FOR THE REPORTING AND QUANTIFICATION OF GREENHOUSE GAS EMISSIONS; ESTABLISHING A GREENHOUSE GAS MANAGEMENT ACCOUNT; REQUIRING THE BOARD TO REPORT TO THE ENVIRONMENTAL QUALITY COUNCIL AND PROVIDE A PROPOSAL FOR REDUCING AND CAPPING EMISSIONS IN MONTANA; AMENDING SECTIONS 75-2-111 AND 75-2-221, MCA; AND PROVIDING AN IMMEDIATE EFFECTIVE DATE.

2015

Senate Bill No. 236 – (S) Missed Deadline for General Bill Transmittal -- AN ACT GENERALLY PROVIDING FOR LEGISLATIVE INVOLVEMENT IN THE DEVELOPMENT OF A STATE PLAN TO ADDRESS GREENHOUSE GAS EMISSIONS FROM EXISTING FOSSIL FUEL-FIRED ELECTRIC GENERATING UNITS; DIRECTING THE DEPARTMENT OF ENVIRONMENTAL QUALITY TO DEVELOP A STATE PLAN TO ADDRESS GREENHOUSE GAS EMISSIONS FROM EXISTING FOSSIL FUEL-FIRED ELECTRIC GENERATING UNITS; ESTABLISHING GUIDELINES FOR THE DEPARTMENT TO USE IN DEVELOPING A STATE PLAN; REQUIRING THE DEPARTMENT TO SUBMIT ITS PLAN TO THE LEGISLATURE; REQUIRING LEGISLATIVE APPROVAL OF THE DEPARTMENT'S STATE PLAN; AND PROVIDING EFFECTIVE DATES AND A TERMINATION DATE.



2013

House Joint Resolution No. 10 – (H) Died in Standing Committee -- A JOINT RESOLUTION OF THE SENATE AND THE HOUSE OF REPRESENTATIVES OF THE STATE OF MONTANA STATING THAT CLIMATE CHANGE IS SCIENTIFICALLY VALID AND REPRESENTS AN ECOLOGICAL THREAT.

House Joint Resolution No. 28 – (H) Died in Standing Committee -- A JOINT RESOLUTION OF THE SENATE AND THE HOUSE OF REPRESENTATIVES OF THE STATE OF MONTANA REQUESTING AN INTERIM STUDY TO COMPLETE AN AGRICULTURE SECTOR ASSESSMENT; AND EXAMINING THE EFFECTS OF POTENTIAL CLIMATE VARIABILITY WITH REGARD TO WATER USE AND SUPPLY IN MONTANA'S AGRICULTURE SECTOR.

House Bill No. 587 – (H) Died in Standing Committee -- AN ACT REQUIRING THE CAPTURE AND TAXATION OF CERTAIN NATURAL GAS THAT IS VENTED OR FLARED; LIMITING THE AMOUNT OF NATURAL GAS THAT CAN BE VENTED OR FLARED; REQUIRING THAT CERTAIN CAPTURED NATURAL GAS BE TAXED; PROVIDING A METHOD FOR VALUING CAPTURED NATURAL GAS THAT IS NOT SOLD; AMENDING SECTIONS 15-36-305 AND 82-11-121, MCA; AND PROVIDING AN EFFECTIVE DATE AND AN APPLICABILITY DATE

Senate Bill No. 281 – (S) Died in Standing Committee -- AN ACT REQUIRING THE DEPARTMENT OF ENVIRONMENTAL QUALITY TO COLLABORATE WITH A MONTANA OFFICE DEDICATED TO CLIMATOLOGY LOCATED ON THE UNIVERSITY OF MONTANA-MISSOULA CAMPUS; REQUIRING A BIENNIAL REPORT ON CLIMATE TO THE GOVERNOR AND LEGISLATURE; AND PROVIDING AN IMMEDIATE EFFECTIVE DATE.

2011

<u>House Joint Resolution No. 18</u> – (H) Died in Standing Committee -- A JOINT RESOLUTION OF THE SENATE AND THE HOUSE OF REPRESENTATIVES OF THE STATE OF MONTANA URGING MONTANA'S GOVERNOR TO WITHDRAW MONTANA FROM THE WESTERN CLIMATE INITIATIVE.

<u>House Bill No. 549</u> – (H) Died in Standing Committee – AN ACT STATING MONTANA'S POSITION ON GLOBAL WARMING; AND PROVIDING AN IMMEDIATE EFFECTIVE DATE.

<u>House Bill No. 550</u> – (S) Died in Standing Committee -- AN ACT PROHIBITING THE STATE FROM IMPLEMENTING ANY FEDERAL GREENHOUSE GAS REGULATORY PROGRAM; AND PROVIDING AN IMMEDIATE EFFECTIVE DATE.

Senate Joint Resolution No. 10 – (S) Filed with Secretary of State -- A JOINT RESOLUTION OF THE SENATE AND THE HOUSE OF REPRESENTATIVES OF THE STATE OF MONTANA OPPOSING EFFORTS BY THE ENVIRONMENTAL PROTECTION AGENCY TO USE EXISTING FEDERAL LAWS TO REGULATE GREENHOUSE GAS EMISSIONS.

2009

House Bill No. 254 – (H) Died in Standing Committee -- AN ACT REQUIRING THE BOARD OF ENVIRONMENTAL REVIEW TO ADOPT RULES AND FEES FOR THE REPORTING AND QUANTIFICATION OF GREENHOUSE GAS EMISSIONS; ESTABLISHING A GREENHOUSE GAS MANAGEMENT ACCOUNT; REQUIRING THE BOARD TO REPORT TO THE ENVIRONMENTAL QUALITY COUNCIL AND PROVIDE A PROPOSAL



FOR REDUCING EMISSIONS IN MONTANA; AMENDING SECTIONS 75-2-111 AND 75-2-221, MCA; AND PROVIDING AN IMMEDIATE EFFECTIVE DATE.

House Bill No. 375 – (S) Died in Standing Committee -- AN ACT REQUIRING THE DEPARTMENT OF ENVIRONMENTAL QUALITY TO SUPPORT THE LEGISLATIVE CLIMATE CHANGE COMMITTEE IN DEVELOPING A REPORT CONCERNING MONTANA'S PARTICIPATION IN A REGIONAL OR FEDERAL CLIMATE CHANGE INITIATIVE; ESTABLISHING A LEGISLATIVE CLIMATE CHANGE COMMITTEE; AND PROVIDING AN IMMEDIATE EFFECTIVE DATE AND A TERMINATION DATE.

House Bill No. 502 – (H) Died in Standing Committee -- AN ACT REGULATING CARBON SEQUESTRATION; REQUIRING A PERMIT FOR A CARBON DIOXIDE SEQUESTRATION WELL; AUTHORIZING THE BOARD OF ENVIRONMENTAL REVIEW TO ADOPT RULES FOR PERMIT REQUIREMENTS, FEES, PENALTIES, LIABILITY INSURANCE, AND BONDING; REQUIRING NOTICE OF PERMIT APPLICATIONS FOR CARBON DIOXIDE SEQUESTRATION WELLS; REQUIRING NOTICE OF LEASE APPLICATIONS FOR CARBON DIOXIDE SEQUESTRATION WELLS; REQUIRING COORDINATION WITH THE BOARD OF OIL AND GAS CONSERVATION FOR CERTAIN WELLS; DECLARING THAT THE STATE OF MONTANA OWNS THE EXCLUSIVE RIGHT TO USE ALL PORE SPACE IN ALL STRATA UNDERLYING ALL SURFACES EXCEPT THOSE OWNED BY THE UNITED STATES OR TRIBAL GOVERNMENTS; AFFIRMING THE DOMINANCE OF THE MINERAL ESTATE; AUTHORIZING THE STATE BOARD OF LAND COMMISSIONERS TO LEASE PORE SPACE; EXEMPTING A CARBON DIOXIDE SEQUESTRATION WELL FROM GROUND WATER PERMIT REQUIREMENTS; AMENDING SECTIONS 70-16-101, 75-1-1001, 75-5-103, 75-5-401, AND 77-2-304, MCA; AND PROVIDING EFFECTIVE DATES.

House Joint Resolution No. 10 – (H) Died in Standing Committee -- A JOINT RESOLUTION OF THE SENATE AND THE HOUSE OF REPRESENTATIVES OF THE STATE OF MONTANA URGING CONGRESS TO SUPPORT THE ESTABLISHMENT OF NEW REVENUE STREAMS TO SUPPORT WILDLIFE ADAPTATION TO CLIMATE CHANGE.

Senate Joint Resolution No. 24 – (S) Died in Standing Committee -- A JOINT RESOLUTION OF THE SENATE AND THE HOUSE OF REPRESENTATIVES OF THE STATE OF MONTANA REQUESTING AN INTERIM STUDY TO INVESTIGATE THE IMPACTS OF MONTANA'S PARTICIPATION IN A REGIONAL GREENHOUSE GAS REDUCTION PROGRAM; AND REQUIRING THAT THE FINAL RESULTS OF THE STUDY BE REPORTED TO THE 62ND LEGISLATURE.

Senate Bill No. 66 – (S) Died in Standing Committee -- AN ACT REGULATING CARBON SEQUESTRATION; AUTHORIZING THE BOARD OF ENVIRONMENTAL REVIEW TO ADOPT RULES FOR THE REGULATION, PERMITTING, AND ADMINISTRATION OF GEOLOGIC CARBON SEQUESTRATION; PROVIDING THE BOARD WITH THE AUTHORITY TO ASSESS FEES, ISSUE PENALTIES, REQUIRE LIABILITY INSURANCE, AND SET BONDS; REQUIRING NOTICE OF PERMIT APPLICATIONS FOR GEOLOGIC CARBON DIOXIDE SEQUESTRATION WELLS; REQUIRING COORDINATION WITH THE BOARD OF OIL AND GAS CONSERVATION; SPECIFYING OWNERSHIP OF PORE SPACE IN STRATA UNDERLYING SURFACES; AFFIRMING THE DOMINANCE OF THE MINERAL ESTATE; PROVIDING FOR A DESCRIPTION OF PORE SPACE RIGHTS PRIOR TO A TRANSFER; AND PROVIDING EFFECTIVE DATES.



Senate Bill No. 498 - Chapter Number Assigned -- AN ACT REGULATING CARBON SEQUESTRATION; REQUIRING A PERMIT FOR A CARBON DIOXIDE INJECTION WELL; AUTHORIZING THE BOARD OF OIL AND GAS CONSERVATION TO REGULATE THE INJECTION OF CARBON DIOXIDE; AFFIRMING THE DOMINANCE OF A MINERAL ESTATE; ESTABLISHING FEES FOR ADMINISTERING A CARBON SEQUESTRATION PROGRAM AND LONG-TERM OVERSIGHT OF WELLS; REQUIRING NOTICE OF CARBON DIOXIDE INJECTION WELLS; REQUIRING THE BOARD TO SOLICIT AND CONSIDER COMMENTS FROM THE DEPARTMENT OF ENVIRONMENTAL QUALITY PRIOR TO ISSUING AN INJECTION PERMIT AND PRIOR TO ISSUING A CERTIFICATE OF COMPLETION; REQUIRING THE BOARD TO SOLICIT AND CONSIDER COMMENTS FROM THE DEPARTMENT OF ENVIRONMENTAL QUALITY PRIOR TO TRANSFERRING LIABILITY TO THE STATE; REQUIRING TESTING AFTER ISSUANCE OF A CERTIFICATE OF COMPLETION AND PRIOR TO TRANSFER OF LIABILITY; ALLOWING FOR THE TRANSFER OF TITLE TO SEQUESTERED CARBON DIOXIDE TO THE STATE AFTER BOARD CERTIFICATION; ALLOWING UNITIZATION FOR GEOLOGIC STORAGE RESERVOIRS; EXEMPTING A CARBON DIOXIDE INJECTION WELL FROM GROUND WATER PERMIT REQUIREMENTS; AMENDING SECTIONS 70-30-105, 75-5-103, 75-5-401, 77 - 3 - 430, 82 - 10 - 402, 82 - 11 - 101, 82 - 11 - 104, 82 - 11 - 111, 82 - 11 - 118, 82 - 11 - 122, 82 - 11 - 123, 82 - 11 - 127, 82 - 11 - 136, 82 - 11 - 127,137, 82-11-161, 82-11-163, 82-11-201, 82-11-204, 82-11-205, AND 82-11-214, MCA; AND PROVIDING EFFECTIVE DATES.

Senate Joint Resolution No. 36 – (H) Died in Standing Committee -- A JOINT RESOLUTION OF THE SENATE AND THE HOUSE OF REPRESENTATIVES OF THE STATE OF MONTANA REQUESTING AN INTERIM STUDY TO INVESTIGATE THE IMPACTS OF FEDERAL CLIMATE CHANGE PROGRAMS; AND REQUIRING THE FINAL RESULTS OF THE STUDY TO BE REPORTED TO THE 62ND LEGISLATURE.

