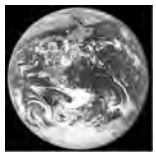
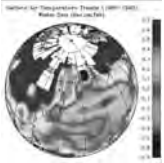
Climate Change

An analysis of climate change policy issues in Montana





A Report to the *61st* Montana Legislature

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This report is a summary of the work of the Environmental Quality Council, specific to the EQC's 2007-08 climate change study. Members received volumes of information and public testimony on the subject, and this report is an effort to highlight key information and the processes followed by the EQC in reaching its conclusions. To review additional information, including written minutes, exhibits, and audio minutes, visit the EQC website: www.leg.mt.gov/eqc

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Introduction

The Environmental Quality Council (EQC) dedicated the largest portion of its time during the 2007-08 interim to a study of issues related to climate change. The EQC was not assigned the study in the form of a bill or resolution, but instead took up the topic as a member-suggested study, authorized in 75-1-324, MCA—general oversight authority. As outlined in the EQC work plan, the study required examination of the overall subject of climate change and how other states are addressing the issue and a review of the Montana Climate Change Advisory Committee (MCCAC) report. The interim study tasks and EQC responses are included in **Appendix A**.

The EQC dedicated the largest portion of its time during the 2007-08 interim to a member-suggested study of issues related to climate change.

In conducting the study and gathering public opinion on the subject, the EQC hosted a climate change survey, inviting the public to rank and comment on the MCCAC's 54 recommendations to reduce greenhouse gas emissions to 1990 levels by 2020. The survey garnered nearly 2,000 responses, and using that information, the EQC selected 15 of the recommendations for further study and discussion.

After a thorough review of the 15 recommendations, EQC members reached a consensus on a series of topics to review even more indepth. 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. The EQC

reviewed a series of bill drafts, letters, and information compiled on the topics above during its July 2008 meeting and modified those bill drafts. The EQC then agreed to put the drafts out for a 30-day public comment period in advance of the September 8-9, 2008 meeting. Public comment on the proposals and this report were collected during the month of August. The EQC reviewed the comments, accepted additional testimony, deliberated, and ultimately agreed to forward nine pieces of draft legislation to the 2009 Legislature for review. Those bill drafts are included in **Appendix B**.

Findings

Study task: Examine the overall subject of climate change**.**

Finding: Climate change is a complex issue with many facets, including scientific, economic, and political.

Finding: Although the causes of climate change continue to be a point of discussion, conservation measures that are economically feasible, while reducing greenhouse gas emissions, should be examined.

Finding: The state should encourage technological advances that can reduce the emission of greenhouse gases and promote conservation while increasing the economic vitality of Montana.

Study task: Review how other states are addressing climate change.

Finding: A growing number of states are setting goals to reduce greenhouse gas emissions. Mechanisms for implementing those goals and related policies must be individually tailored to meet the unique needs of individual states, including Montana. Considerations should include the costs and benefits of such policies.

Finding: As federal climate change policies unfold, it will be imperative that Montana be proactive in protecting its resources, including the economy and quality of life enjoyed by all Montanans.

Finding: There are currently policies in Montana that encourage energy conservation, the use of renewable energy sources, and the protection of agriculture and forest lands. These policies may serve as a framework for future climate change discussions.

Study task: Evaluate the *Montana Climate Change Action Plan: Final Report of the Governor's Climate Change Advisory Committee*.

Finding: The MCCAC reached a consensus on 54 policy recommendations to achieve the MCCAC's goal of reducing greenhouse gas emissions to 1990 levels by 2020. Some of the recommendations may be implemented administratively, while others would require the support of the Montana Legislature.

Finding: There is considerable variation in the costs and benefits of implementing each of the 54 recommendations. The potential long-term economic impacts of some recommendations remain unclear.

Finding: Many recommendations in the MCCAC report considered under "state lead by example" can be achieved through implementation of the 20x10 initiative to reduce energy use in state government facilities and operations by 20% by the end of the calendar year in 2010.

Finding: Montana has joined the Climate Registry and Western Climate Initiative (WCI). The Climate Registry will assist in measuring, tracking, and verifying emissions of greenhouse gases in Montana. The WCI is a collaborative effort to develop regional strategies to address climate change. This serves to implement aspects of the MCCAC "cross-cutting issues" recommendations, including CC-3 and CC-7.4.

Recommendations

- Increase funding for the Montana Manufacturing Extension Center (through coal severance) and request that additional funds be used to promote and develop recycling technologies. Eliminate the sunset on funding (through coal severance) for the Growth Through Agriculture Program and Montana Cooperative Development Centers.

- Create a loan program to assist private entities and political subdivisions of the state, including local and tribal governments, in developing recycling technologies and equipment at local landfills.

- Eliminate sunsets on tax incentives for recycling. This includes the recycled materials tax deduction (Dec. 2011 sunset) and the credit against air permitting fees for certain uses of postconsumer glass (Dec. 2009 sunset). It also includes the tax credit for investments in property or equipment used to collect or process reclaimable materials (Dec. 2011 sunset).

- Send a letter to the Commissioner of Higher Education encouraging Montana universities to track, as economically as is feasible, the amount of locally grown food produced and consumed in Montana. This letter was sent in May 2008, and a response from the University System was shared with the EQC during the September 2008 meeting.

- Require the Department of Transportation to provide a report to the Revenue and Transportation Interim Committee on measures that the Department is taking to conserve energy in the transportation sector and on conservation measures specific to city street design each interim. This report should track efforts over and above current levels of activity.

- Update and remove any restrictive statutes related to mass transit.

- Provide additional funding for weatherization programs, using a percentage of the increased oil and gas revenue realized in Montana.

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- Expand tax credits (similar to those proposed in Senate Bill No. 210 during the 2007 legislative session) to create incentives for low-income property owners, landlords, and/or renters to weatherize.

- Send a letter to the Commissioner of Higher Education asking Montana's universities to provide a report and recommendations on biomass, specifically the feasibility of the collection, processing, transportation, storage, and distribution of forestry and agricultural residues, as well as market development or expansion for these materials. This letter was sent in May 2008, and a response from the University System was shared with the EQC during the September 2008 meeting.

- Pursue a study bill requiring the EQC during the 2009-10 interim to study biomass and provide specific direction on issues, including but not limited to expanding the Alternative Energy Revolving Loan Program, better utilizing the Renewable Resource Grant Program, and promoting pilot projects, source reduction, emissions research and characterization, and a spectrum of tax incentives.

- Require newly constructed and leased state buildings to exceed current building codes or standards.

In addition to the recommendations above, the EQC spent a great deal of time discussing options to promote local food and fiber. In July 2008, the EQC received a report on efforts by the Economic Affairs Interim Committee concerning Senate Joint Resolution No. 13, a study of methods and recommendations to add value to Montana agricultural products through redevelopment of a food processing industry. The EQC also spent a great deal of time reviewing draft legislation to provide tax incentives or tax credits to encourage the use of Montana raw materials for production of food in Montana. Because of questions concerning the constitutionality of such an incentive, the EQC was unable to pursue the recommendation.

Climate Change: Background

The EQC started the interim with an introduction to the science of climate change and an overview of local, state, and national actions related to climate change. A resource list was provided to EQC members and the public as a tool to find more information on the complex issue of climate change. That resource list is included in **Appendix C**.

Climate change is a term that includes any significant change in measures of climate, such as temperature, precipitation, or wind that lasts for several decades or longer. Climate change may result from:

- natural factors, such as changes in the sun's intensity or slow changes in the earth's orbit around the sun;
- natural processes within the climate system, such as changes in ocean circulation; and
- human activities that change the atmosphere's composition, including the burning of fossil fuels, or changes to the land surface, such as deforestation, reforestation, urbanization, or desertification.[1]

Climate change is a term that includes any significant change in measures of climate, such as temperature, precipitation, or wind that lasts for several decades or longer.

Greenhouse gases are central to the climate change debate. Visible light from the sun passes through the atmosphere and is absorbed by the earth's surface—some of that energy is then emitted back to the atmosphere as heat. Greenhouse gases trap that heat, which would otherwise be released into space, raising the temperature of the atmosphere

[1] Environmental Protection Agency. www.epa.gov/climatechange/basicinfo.html

and, subsequently, the earth's surface. This is called the greenhouse effect. Primary greenhouse gases include the following:[2]

- Water vapor contributes the most to the greenhouse effect and occurs in the atmosphere as a result of the natural cycle of water.

- Carbon dioxide also cycles naturally between the atmosphere and living organisms. Plants and algae remove CO_2 from the atmosphere via photosynthesis, while all living things release CO_2 via respiration (i.e., breathing). Carbon dioxide also cycles back and forth between water on the earth's surface (freshwater and the oceans) and the atmosphere. In addition to these natural processes, humans release large quantities of CO_2 to the atmosphere by burning fossil fuels, deforestation, and other industrial processes.

- Methane is a natural byproduct of decomposition, but significant quantities are also produced by agriculture and animal husbandry as well as by fossil fuel production.

- Nitrous oxide (N_2O) is released naturally from terrestrial soils and oceans, but substantial quantities are also generated from the use of nitrogen fertilizers in agriculture and through some industrial processes.

- A number of other natural and human-produced gases also contribute to the greenhouse effect, including tropospheric ozone and industrial gases such as halocarbons.

- Aerosols are airborne particles within the atmosphere. Some aerosols, such as sulfate aerosols and black carbon aerosols, are also produced by fossil fuel combustion. Sulfate aerosols tend to reflect incoming solar radiation, cooling the earth's surface. Black carbon aerosols absorb, rather than reflect, solar radiation, which shades the earth's surface but warms the atmosphere.

[2] Pew Center on Climate Change. www.pewclimate.org/global-warming-basics/faq_s/glance_faq_science.cfm

Although the greenhouse effect is necessary for the planet to be warm enough to be livable, there are concerns that an increasing accumulation of greenhouse gases is causing an increase in global temperatures.

During the past century, global surface temperatures have increased at a rate near 0.11 degrees F each decade. However, this trend has increased to a rate approximately 0.32 degrees F each decade during the past 25 to 30 years, according to the National Climatic Data Center.[3] There have been two sustained periods of warming, one beginning around 1910 and ending around 1945 and the most recent beginning about 1976.[4]

Since the beginning of this century, each year has ranked among the 10 warmest years of the observational period ranging from 1850 to the present.[5]

In May 2008, the U.S. Climate Change Science Program (CCSP) released "Synthesis and Assessment Product 4.3: The Effects of Climate Change on Agriculture, Land Resources, Water Resources, and Biodiversity in the United States". The CCSP combines the research efforts of 13 agencies on climate and global change, with the U.S. Department of Agriculture as the lead agency for the report. The report provided one of the most extensive examinations of climate impacts on U.S. ecosystems.[6]

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[3] http://www.ncdc.noaa.gov/oa/climate/research/2007/feb/feb07.html

[4] National Climatic Data Center, 2006. http://lwf.ncdc.noaa.gov/oa/climate/research/2006/ann/global.html

[5] World Meteorological Association, 2006. http://www.wmo.ch/pages/themes/wmoprod/documents/WMO_1016_E.pdf

[6] The report was written by 38 authors from the universities, national laboratories, nongovernmental organizations, and federal service. It underwent expert peer review by 14 scientists through a Federal Advisory Committee formed by the USDA. The National Center for Atmospheric Research also coordinated in the production of the report. http://www.climatescience.gov/Library/sap/sap4-3/default.php.

The report finds that climate change is affecting U.S. water resources, agriculture, land resources, and biodiversity.

Specific findings include:

- Grain and oilseed crops will mature more rapidly, but increasing temperatures will increase the risk of crop failures, particularly if precipitation decreases or becomes more variable.

- Higher temperatures will negatively affect livestock. Warmer winters will reduce mortality but this will be more than offset by greater mortality in hotter summers. Hotter temperatures will also result in reduced productivity of livestock and dairy animals.

- Forests in the interior West, the Southwest, and Alaska are already being affected by climate change with increases in the size and frequency of forest fires, insect outbreaks and tree mortality. These changes are expected to continue.

- Much of the United States has experienced higher precipitation and streamflow, with decreased drought severity and duration, over the 20th century. The West and Southwest, however, are notable exceptions, and increased drought conditions have occurred in these regions.

- Weeds grow more rapidly under elevated atmospheric CO_2. Under projections reported in the assessment, weeds migrate northward and are less sensitive to herbicide applications.

- There is a trend toward reduced mountain snowpack and earlier spring snowmelt runoff in the Western United States.

- Horticultural crops (such as tomato, onion, and fruit) are more sensitive to climate change than grains and oilseed crops.

- Young forests on fertile soils will achieve higher productivity from elevated atmospheric CO_2 concentrations. Nitrogen deposition and warmer temperatures will increase productivity in other types of forests where water is available.

- Invasion by exotic grass species into arid lands will result from climate change, causing an increased fire frequency. Rivers and riparian systems in arid lands will be negatively impacted.

- A continuation of the trend toward increased water use efficiency could help mitigate the impacts of climate change on water resources.

- The growing season has increased by 10 to 14 days over the last 19 years across the temperate latitudes. Species' distributions have also shifted.

- The rapid rates of warming in the Arctic observed in recent decades, and projected for at least the next century, are dramatically reducing the snow and ice covers that provide denning and foraging habitat for polar bears.[7]

[7] http://www.usda.gov/wps/portal/!ut/p/_s.7_0_A/7_0_1OB?contentidonly=true&contentid=2008/05/0136.xml

Climate Change: The Issues

Debates about climate change are scientific, economic, political, and rife with complexities. That said, major points of contention include to what degree are human-produced greenhouse gases affecting the climate and what are those effects?

A 2001 report prepared by the National Academy of Sciences at the request of President George W. Bush concluded, "Greenhouse gases are accumulating in Earth's atmosphere as a result of human activities, causing surface air temperatures and subsurface ocean temperatures to rise. Temperatures are, in fact, rising. The changes observed over the last several decades are likely mostly due to human activities, but we cannot rule out that some significant part of these changes is also a reflection of natural variability." [8]

Citing the report, the president called for a reduction in the production of greenhouse gases.[9]

Today, statements about human-produced greenhouse gases affecting the climate are even stronger than those issued by the National Academy of Sciences in 2001. This statement on the EPA website is reflective of others:

> Scientists know with virtual certainty that:
>
> - Human activities are changing the composition of earth's atmosphere. Increasing levels of greenhouse gases like

[8] Climate Change Science: An Analysis of Some Key Questions (2001). http://books.nap.edu/openbook.php?record_id=10139&page=1

[9] Presidential statement, 2001. www.climatevision.gov/statements.html

carbon dioxide (CO_2) in the atmosphere since pre-industrial times are well-documented and understood.

- The atmospheric buildup of CO_2 and other greenhouse gases is largely the result of human activities such as the burning of fossil fuels.

- The major greenhouse gases emitted by human activities remain in the atmosphere for periods ranging from decades to centuries. It is therefore virtually certain that atmospheric concentrations of greenhouse gases will continue to rise over the next few decades.

- Increasing greenhouse gas concentrations tend to warm the planet.

A working group of the Intergovernmental Panel on Climate Change (IPCC) recently concluded, "Most of the observed increase in global average temperatures since the mid-20th century is very likely due to the observed increase in anthropogenic greenhouse gas concentrations."[10]

"Discernible human influences now extend to other aspects of climate, including ocean warming, continental-average temperatures, temperature extremes and wind patterns."[11]

However, conclusions about climate change are not unanimous, and this was an issue discussed at length by the EQC in conducting its interim work.

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[10] The World Meteorological Organization and the United Nations Environment Programme established the Intergovernmental Panel on Climate Change (IPCC) in1988. Its role is to assess on a comprehensive, objective, open, and transparent basis the scientific, technical, and socioeconomic information relevant to understanding the scientific basis of risk of human-induced climate change, its potential impacts, and options for adaptation and mitigation. The IPCC does not carry out research nor does it monitor climate-related data or other relevant parameters. It bases its assessment mainly on peer reviewed and published scientific/technical literature.

[11] IPCC, 2007: Summary for Policymakers. In: Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change.

Richard S. Lindzen, a meteorology professor at the Massachusetts Institute of Technology, was a member of the panel that wrote the 2001 National Academy of Sciences report. At the time, he wrote that the summary passage quoted above was a "zinger" that overshadowed the report's caveats, mainly, according to Lindzen, "Our primary conclusion was that despite some knowledge and agreement, the science is by no means settled."[12]

At a 2005 conference on climate change at Yale University, Lindzen said that there is basic agreement on three points:[13]

- The global mean surface temperature is always changing. It has increased and decreased over the last 60 years. Over the last century, it has increased, meaning that there has been some global warming.
- Carbon dioxide is a greenhouse gas, and its increase should contribute to warming. It is increasing, and a doubling would increase the greenhouse effect (mainly because of water vapor and clouds) by about 2%.
- There is good evidence that humans are responsible for the recent increase in CO_2, though climate itself (as well as other natural phenomena) can also cause changes in CO_2.

However, Lindzen contends that models used by the IPCC fail to correctly take into account the effect of water vapor and clouds. "Even if we attribute all warming over the past century to man made greenhouse gases (which we have no basis for doing), the observed warming is only about 1/3-1/6 of what models project," Lindzen said.

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[12] Wall Street Journal, 2001. http://eaps.mit.edu/faculty/lindzen/OpEds/LindzenWSJ.pdf

[13] Global Warming: Looking Beyond Kyoto, Yale, 2005. http://www.ycsg.yale.edu/climate/forms/LindzenYaleMtg.pdf

"At this point, it is doubtful that we are even dealing with a serious problem. If this is correct, then there is no policy addressing this non-problem that would be cost-effective," Lindzen said. "Even if we believe the problem to be serious, we have already reached the levels of climate forcing that have been claimed to be serious."[14]

The validity of the models used in the IPCC working group report cited above also are criticized by the George C. Marshall Institute. "The models have systematic flaws, the input data is unreliable prior to 1970 at the earliest, and the historical record of climate is incomplete and flawed."[15]

The Science and Public Policy Institute in 2008 released a series of reports examining climate change issues, listing the costs of federal mitigation legislation, and listing state scientists who have signed a petition urging the U.S. to reject the Kyoto agreement and noting their belief that human activity is not responsible for climate change. The Montana report notes that 143 Montana scientists have signed the petition and are joined by more than 31,000 Americans with university degrees in science who believe climate change is "without scientific validity".[16]

To learn more about the issues and complexities of climate change, in September 2007, the EQC hosted a climate change discussion panel that included:

- ☐ Steven Running — University of Montana-Missoula ecology professor;
- ☐ Phillip Farnes — retired civil engineer, Soil Conservation Service;

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[14] Ibid.

[15] Working Group I's Contribution to the IPCC's Fourth Assessment Report (AR4): A Critique, 2007. www.marshall.org/pdf/materials/515.pdf. The Marshall Institute, a nonprofit corporation, conducts technical assessments of scientific issues with an impact on public policy and provides a critical examination of the scientific basis for global climate change policy.

[16] "Observed Climate Change and the Negligible Global Effect of Greenhouse-gas Emission Limits in the State of Montana", Science and Public Policy Institute, page 15. http://scienceandpublicpolicy.org/images/stories/papers/originals/chip_montana.pdf

- Joseph Caprio — retired Montana State University-Bozeman professor, agricultural climatology; and
- James Taylor — attorney, editor, Environment and Climate News.

Running discussed the implications of climate change for the Northern Rockies. His presentation included information on the IPCC and the panel's most recent reports and findings. Running was a lead author of the 2007 United Nations IPCC report. In October 2007, the Nobel Peace Price was awarded to Al Gore and the IPCC.

Farnes presented information about climate change in Montana, including a snowcap hydrology report. He discussed average temperatures and variability, average annual precipitation and variability, mountain snowpack, and runoff.

Caprio covered information on the atmosphere and atmospheric change and biological, water, and climate changes. He also discussed the extremes of climate.

Taylor, a senior fellow for the Heartland Institute, presented his findings on the science of the earth's changing climate. He discussed the issue of "consensus" on climate change, human contribution, short-term weather patterns, and economic considerations. He is the author of "What Climate Scientists Think about Global Warming", published by the Heartland Institute in 2007.

Climate Change: Greenhouse Gas Emissions in Montana

The Center for Climate Strategies (CCS), a nonprofit organization discussed more indepth below, prepared a greenhouse gas inventory under a contract with the Department of Environmental Quality (DEQ). The inventory provides a thorough look at emissions in Montana and was offered to the MCCAC to assist the group in its efforts.

The inventory includes carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Aerosol emissions, including "black carbon" from fossil fuel combustion, also were included. Emissions inventoried in the report do not solely include carbon dioxide but instead include a common metric, CO_2 equivalent.

Montana's gross greenhouse gas emissions are rising at about the same rate as the nation's on the whole.[17] Montana's emissions per capita are higher, primarily because of the state's fossil fuel production industry, agricultural industry, large distances for transportation, and low population density. Forestry activities are estimated to be net sinks for emissions, and agricultural soils are estimated to sequester additional gases.

The inventory shows that activities in Montana account for about 37 million metric tons of carbon dioxide equivalent emissions or 0.6% 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 account for about 50% of the gross greenhouse gas

[17] *Montana GHG Inventory and Reference Case Projections 1990-2020*, Center for Climate Strategies, principal authors: Alison Bailie, Stephen Roe, Holly Lindquist, and Alison Jamison, page 4, September 2007.

emissions in the state.[18] 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. A look at greenhouse gas emissions by sector is included in **Figure 1**.

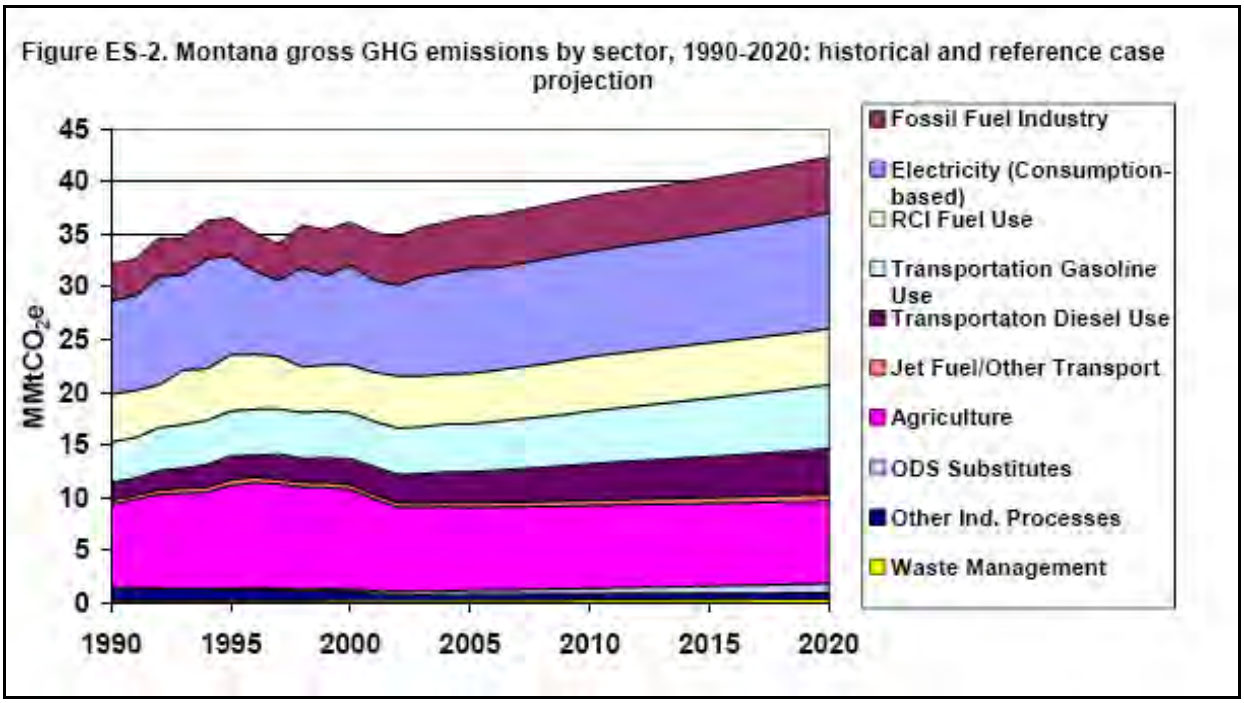

Figure 1
Source: *Montana Climate Change Action Plan: Report of the Governor's Climate Change Advisory Committee.*

The inventory includes projections that show reference case emissions increasing to 42 million metric tons by 2020, about 30% above 1990 levels. The majority of the increase is expected to come from the transportation sector. The report also reviewed carbon sinks or sequestration, like forests and soil, decreasing the gross estimates annually by about 25 million metric

[18] Ibid. page 5.

tons of CO_2 equivalent. With the sinks calculation, the net increase by 2020 is estimated at 16.3 million metric tons, in the reference case projections.[19]

It also is noteworthy that the 54 MCCAC policy recommendations do not reduce greenhouse gas emissions from electricity that is generated in Montana and exported out of state.

Reductions based on consumption show the following reductions:

- 34.5% would come from the energy supply sector;
- 29% would come from the residential, commercial, industrial, and institutional sector;
- 26.9% would come from the agriculture, forestry, and waste sector; and
- 9.6% would come from the transportation and land use sector.[20]

[19] *Montana Climate Change Action Plan: Report of the Governor's Climate Change Advisory Committee*, page 1-6.

[20] Ibid. page EX-4.

Climate Change: Players and Programs

Various public and private organizations at the national, regional, state, and local levels are addressing climate change.

The national climate change policy has three main goals:[21]

- slowing the growth of emissions;
- strengthening science, technology, and institutions; and
- enhancing international cooperation.

In 2002, the United States pledged to reduce the greenhouse gas intensity of the American economy by 18% over the 10-year period from 2002 to 2012. Voluntary, public-private programs focus on energy efficiency, renewable energy, methane and other noncarbon dioxide gases, agricultural practices, and implementation of technologies to achieve greenhouse gas reductions.[22]

Greenhouse gas emissions aren't restricted by the federal government; however, the U.S. Supreme Court ruled that the Environmental Protection Agency (EPA) has failed to use its authority to regulate carbon in automobile exhaust as a pollutant. In April 2008, officials in 18 states filed a petition taking the EPA back to court, claiming that the agency has largely ignored the Supreme Court ruling and has not taken an active role in addressing the issue of climate change.

In the absence of federal laws on the subject of greenhouse gas emissions, states also are forming individual and regional tracking and reductions

[21] www.epa.gov/climatechange/policy/index.html

[22] Ibid.

programs. A breakdown of climate change activities in a handful of Western states is included in **Appendix D**.

Regional Programs

Montana is a member of the WCI that also includes Arizona, California, New Mexico, Oregon, Utah, and Washington. The Canadian provinces of British Columbia, Ontario, Quebec, and Manitoba also joined. States will identify, evaluate, and implement ways to reduce greenhouse gas emissions. The initiative requires an overall regional goal to reduce emissions.[23]

The Regional Greenhouse Gas Initiative (RGGI) includes Connecticut, Delaware, Maine, Maryland, New Hampshire, New Jersey, New York, Rhode Island, Massachusetts, and Vermont. Starting in 2009, carbon emissions from power plants in those states will be capped at current levels—about 121 million metric tons annually. The cap remains until 2015 when the states then incrementally reduce emissions by 10% by 2019. It establishes the first cap-and-trade program for carbon dioxide. It is the first mandatory cap and trade program for emissions in the U.S.[24]

As of March 2008, 39 states, including Montana, joined the Climate Registry, a national initiative to track greenhouse gas emissions. The registry, a nonprofit organization, will be used to track, measure, verify, and publicly report greenhouse gases. The registry accepted data starting in January 2008. State agencies, corporations, and educational institutions will be invited to report emissions under the voluntary program. Some states also have specific sources and facilities that are required to report under regulatory programs. In Montana, facilities are not required to report carbon emissions, although a number of facilities report emissions.

[23] http://www.westernclimateinitiative.org/

[24] Model Rule and Amended Memorandum of Understanding, Regional Greenhouse Gas Initiative.

Thirty states, including Montana, have completed or are working on climate action plans.[25] In 2006, the Western Governors' Association stated its support for local, state, regional, and national programs that would "reduce anthropogenic greenhouse gas emissions in a manner that is consistent with scientific research and will not significantly harm the U.S. economy".[26]

Thirty states, including Montana, have completed or are working on climate action plans.

The mayors of Billings, Bozeman, and Missoula also have signed on to the U.S. Mayors Climate Protection Agreement, in which mayors commit to reduce emissions in their cities to 7% below 1990 levels by 2012.[27]

Organizations

In the private sector, members of the American Petroleum Institute formed a climate challenge program to reduce greenhouse gas emissions. Companies are using cogeneration, also known as combined heat and power technology, to turn waste heat into energy and have been working around the world to reduce natural gas flaring, another source of greenhouse gas emissions. Companies also are researching alternative fuels and other technologies.[28] Every day, new efforts are developing to examine various aspects of the climate change issue.

Here is a snapshot of a few Montana-based programs:

- The **Big Sky Carbon Sequestration Partnership,**[29] led by Montana State University, is one of the U.S. Department of Energy's seven

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[25] *Climate Change: Action by States to Address Greenhouse Gas Emissions*, Jonathan Ramseur, Congressional Research Service, page 6, January 2007.

[26] www.westgov.org/wga/press/plenary1-pr.htm

[27] www.usmayors.org/climateprotection/

[28] www.api.org/ehs/climate/new/companiesaddress.cfm

[29] http://www.bigskyco2.org/

regional partnerships. Researchers are developing a framework to address carbon dioxide emissions and are working with stakeholders to create a "vision for a new, sustainable energy future".[30]

- The **National Carbon Offset Coalition, Inc.,**[31] is made up of seven Montana nonprofit corporations. It allows landowners, corporations, tribes, and state and local governments to participate in a market-based conservation program. The program is geared at reducing the impacts of greenhouse gases and explores the concept of transferring carbon sequestration units as a new commodity.

- **Montanans for a Healthy Climate**[32] is a nonprofit organization focused on protecting Montana's outdoor heritage. The **Montana Climate Challenge**[33] is operated through the **National Wildlife Federation**. The organization **GlobalWarmingSolution.org** is made up of 35 member organizations representing 320 groups from throughout the United States and is based in Missoula. Other conservation-based organizations like the **Montana Environmental Information Center**[34] and **Montana Trout Unlimited**[35] offer climate change information.

- The **Montana Coal Council, the Montana Petroleum Association, and the Western Environmental Trade Association**[36] each recently featured programs on climate change issues. In March 2008, the **Montana Chamber of Commerce** hosted a Climate Change conference in Billings.[37]

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[30] Ibid.

[31] www.ncoc.us

[32] www.mthealthyclimate.com

[33] www.mtclimatechallenge.org

[34] www.meic.org

[35] www.montanatu.org

[36] www.montanacoalcouncil.com; www.montanapetroleum.org; www.weta-montana.org

[37] http://www.montanachamber.com/ws/aboutus3.php?page_id=123711

- Regional efforts include the **Rocky Mountain Climate Organization** and the **Western Climate Initiative**.[38]

[38] www.rockymountainclimate.org; www.westernclimateinitiative.org

Climate Change: State-Level Activity

The issue of climate change also is being discussed in various other forums of Montana state government.

Montana Board of Environmental Review

In January 2008, the Montana Board of Environmental Review (BER) considered an appeal of an air quality permit issued for a proposed coal-fired power plant based in part on whether carbon dioxide emissions should be treated as a regulated air pollutant. The BER voted 5-1 that it did not have the authority to regulate carbon dioxide emissions from the proposed plant. The decision has since been appealed to state District Court. A memo provided to the EQC offering an overview of the matter is included in **Appendix E**.

Past Legislation

During the 2007 legislative session, lawmakers debated several greenhouse gas and climate change-related bills. There were additional bills considered that examined fuel efficiency standards, building efficiency requirements, overall energy efficiency and energy auditing, renewable energy, and energy conservation related to climate change. The bills listed in **Appendix F** focus specifically on carbon sequestration and greenhouse gas regulation.

Montana Climate Change Advisory Committee

Governor Brian Schweitzer in 2005 asked Montana's DEQ to form a climate change advisory committee to thoroughly study the impact of climate change in Montana.

The MCCAC included 18 members who represented industry, the environment, local and tribal governments, transportation, and agriculture. The DEQ contracted with the CCS to develop a comprehensive inventory and

forecast of greenhouse gas emissions in Montana from 1990 to 2020, referred to earlier in this report, as well as to develop policy options for reducing greenhouse emissions.

The CCS is a nonprofit organization that works with groups like the MCCAC to design and implement policies that address climate mitigation. The CCS has teamed with 14 other states and a handful of other organizations to develop greenhouse gas reduction plans.[39] During the EQC's March 2008 meeting, Tom Peterson, executive director of the CCS, spoke via conference call to members. He discussed how the CCS is funded, how planning processes, such as those undertaken in Montana, are initiated, and how the collaborative planning process worked in Montana. His presentation is included in **Appendix G**.

The CCS is a policy center of Enterprising Environmental Solutions, Inc. Mr. Peterson indicated that the CCS assisted the MCCAC in identifying a range of greenhouse gas mitigation options, using a combination of more that 250 existing state actions from across the country and Montana-specific actions, as determined by the MCCAC. He described the process as a "deliberative democracy"and outlined how MCCAC members evaluated and decided on the proposals that advanced. The processes and outcomes in other states where the CCS has assisted in developing climate action plans were discussed, and the differences in those plans were highlighted.

The DEQ had a $50,000 contract with the CCS, and the CCS provided about $320,000 in foundation funding to assist in developing the climate change action plan. The DEQ also indicated that MCCAC expenses were about $12,000. A series of legislative information requests and responses by the Legislative Audit Division on the subject of the DEQ's contract with the CCS are included in **Appendix H**.

[39] http://www.climatestrategies.us/Our_Track_Record.cfm

The MCCAC concluded its work in 2007, and final recommendations were released in November 2007. The MCCAC offered 54 recommendations. In the report, the 54 recommendations are 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). Some of the recommendations can be implemented administratively, and some would require legislation. The summary and complete report can be reviewed online at http://www.mtclimatechange.us/. A list of the policy options recommended by the MCCAC is included in **Appendix I**.

20x10

Following the release of the MCCAC's final report, Governor Schweitzer announced the 20x10 Initiative, asking all state agencies to reduce their energy use by 20% by 2010.[40] Reductions in electricity, natural gas, propane, and fuel oil use are expected. In addition to the 20x10 initiative, agencies also are asked to apply Montana Corporate Average Fuel Economy standards so that state vehicle fleets can achieve an average of 30 miles per gallon or better. This effort is in addition to legislation approved by the 2007 Legislature that requires 27 miles per gallon or better for the state fleet. A question and answer document prepared by DEQ Deputy Director Tom Livers, outlining issues related to the initiative, is included in **Appendix J**.

[40] http://governor.mt.gov/20x10/default.asp

Climate Change: EQC Review

As part of its interim work, the EQC reviewed all 54 recommendations included in the *Montana Climate Change Action Plan: Final Report of the Governor's Climate Change Advisory Committee*. In January 2007, EQC members all received copies of the final report, a summary of the report, and appendices used in creating the report. DEQ Director Richard Opper and Lou Moore, bureau chief for the DEQ's Energy and Pollution Prevention Bureau, offered an overview of the process and the 54 recommendations. Those involved in development of the recommendations, including MCCAC members, members of the scientific advisory panel, and technical working group members, also were invited to comment. The invitation sent to interested persons is included in **Appendix K**.

EQC members believed that it was imperative that the public have as much opportunity as possible to weigh in on the MCCAC recommendations, as well as the subject of climate change.

In an effort to invite public comment and better understand how Montanans feel about the recommendations included in the MCCAC's final report, the EQC conducted a survey during the month of February 2008. Members themselves also participated in the survey. Using the survey, the public was invited to rank the 54 MCCAC recommendations on a scale of 1 to 5, with 1 being do not support and 5 being fully support.

Although the survey was lengthy, EQC members commented that it was imperative that the public have as much opportunity as possible to weigh in on the individual recommendations, as well as the subject of climate change.

The online survey garnered 1,979 online responses and 7 additional responses, submitted as hard copies. Of the total, 962 people signed their survey. Of the 16 EQC members, 13 members submitted surveys. Along with the rankings, participants were invited to comment on the individual recommendations. More than 600 pages of public comment were submitted, which are available on the EQC website at http://leg.mt.gov/css/Committees/Interim/2007_2008/environmental_quality_council/climatesurvey/climatesurvey.asp. A hard copy of the public comment collected is available in the Legislative Environmental Policy Office located in Room 171 of the State Capitol. Public participation in the climate change survey was recordbreaking for the Legislative Services Division.

The survey was not scientific, and participation was not limited in anyway. There were no controls requiring participants to leave a name or affiliation. There was no limit on the number of times that an individual could take the survey. Because it was not a scientific survey and did not have a controlled sample, it can't be viewed as a scientifically accurate gauge of public opinion on climate change or on the individual MCCAC recommendations. An analysis of the survey was provided to the EQC as an information tool.

Two survey synopsis forms were compiled in an effort to look for trends in support or lack of support for particular recommendations. The synopsis showed that there were a few recommendations that received both EQC and public support, as based on the survey. Three recommendations were in both the EQC's and the public's top 10, including:

- **AFW-11** Programs to Promote Local Food and Fiber (75% of participating EQC members voting 4 or 5 and 59% of the public voting 4 or 5)
- **AFW-12** Enhanced Solid Waste Recovery and Recycling (75% of participating EQC members voting 4 or 5 and 63% of the public voting 4 or 5)
- **TLU-10** Transportation System Management (69% of participating EQC members voting 4 or 5 and 61% of the public voting 4 or 5)

In the top 20, there were additional similarities. Those that rose to the top, as indicated by percentages voting 4 or 5, include:

- **RCII-13** Metering Technologies w/Opportunity for Load Management and Choice
- **RCII-2** Market Transformation and Technology Development and Programs
- **RCII-8** Support for Renewable Energy Applications
- **RCII-10** Industrial Energy Audits and Recommended Measure Implementation
- **CC-4** State Climate Public Education and Outreach
- **TLU-9** Procurement of Efficient Fleet Vehicles
- **AFW-8** Afforestation/Reforestation Programs — Restocking

In looking at those that received the least support, there also were trends between the EQC and the public responses. One recommendation was in the bottom 10 of the EQC and the public responses (as indicated by percentages voting 1 or 2):

- **RCII-9** Carbon Tax (46% of participating EQC members voting 1 or 2 and 46% of the public voting 1 or 2)

In the bottom 20 of the EQC and the public responses, or those receiving the least support, as indicated by percentages voting 1 or 2, there are more similarities:

- **RCII-1** Demand Side Management Programs, Efficiency Funds and Requirements
- **ES-10** Generation Performance Standards or GHG Mitigation Requirements for New (and/or existing) Generation Facilities, with/without GHG Offsets
- **ES-7** Demand Side Management
- **ES-8/9** Market Based Mechanisms to Establish a Price Signal for GHG Emissions (Cap and Trade or Tax)
- **ES-5** Incentives for Advanced Fossil Fuel Generation and Carbon Capture and Storage or Reuse, including Combined Hydrogen and Electricity Production with Carbon Sequestration

- **ES-13** CO_2 Capture and Storage or Reuse in O&G Operations, including Refineries and Coal-to-Liquids Operations
- **TLU-4** Financial and Market Incentives for Low GHG Vehicle Ownership and Use
- **TLU-12** Off-road Engines and Vehicles GHG Emissions Reduction
- **TLU-6** Low Carbon Fuels
- **CC-7.3** Require Evaluation of GHG Emissions in Environmental Studies
- **CC-6** Options for State GHG Goals or Targets
- **CC-7.4** Join WCI and Consider Joining Chicago Climate Exchange

The EQC also reviewed an analysis prepared by EQC member Senator Bob Hawks. Senator Hawks compiled the combined (5 and 4) ranking scores for the EQC and public responses totaling over 50%. His analysis can be viewed in **Appendix L**.

With the survey information and analysis, the EQC voted to take a closer look at 15 of the 54 recommendations. By looking at the 15 recommendations, the EQC members stressed that they were not endorsing those 15 recommendations or dismissing any of the others. Members requested the following information on the 15 recommendations:

- conservation considerations;
- what is currently being done in this area/what is the executive doing in this area; and
- what potential new legislation in this area could be considered.

The complete list of 15 recommendations that were further investigated includes:

- **AFW-12** Enhanced Solid Waste Recovery and Recycling
- **AFW-11** Programs to Promote Local Food and Fiber
- **TLU-10** Transportation System Management
- **RCII-2** Market Transformation and Technology Development Programs
- **RCII-13** Metering Technologies/Load Management and Choice
- **AFW-8** Afforestation/Reforestation Programs-Restocking
- **CC-4** State Climate Public Education and Outreach

- **TLU-9** Procurement of Efficient Fleet Vehicles
- **RCI I-10** Industrial Energy Audits and Implementation
- **RCI I-8** Support of Renewable Energy Applications
- **AFW-7** Expanded Use of Biomass Feedstocks for Energy Use
- **AFW-4** Incentives for Enhancing GHG Benefits/Farm Bill Conservation
- **CC-7.1** Target for Reducing the State's Own GHG Emissions
- **RCI I-11** Low-Income and Rental Housing Energy Efficiency Program
- **RCI I-6** Consumer Education Programs

An analysis of the 15 recommendations is included in **Appendix M**. EQC members reviewed the information during the May 2008 meeting and further refined their options requesting discussion drafts, reports, and letters as outlined in the findings and recommendations, included on page 4 of this report. The requested information discussed in the recommendations was provided in a memo to the EQC in July 2008 included in **Appendix N**.

This report provides an overview of how the EQC conducted its interim study of issues related to climate change. Climate change is expected to remain a difficult topic contemplated by the Montana Legislature. The EQC offers this report as a tool to assist lawmakers and the public in those continuing conversations.

Climate Change Work Plan Tasks

X 1. Compile index of literature related to issue of climate change.
Who: EQC staff
Time line: Completed in advance of September 2007 meeting

X 2. Summary of state and federal actions regarding climate change.
Who: EQC staff; DEQ staff
Time line: Reports received during September 2007 and January 2008 meetings

X 3. Panel discussion on issue of climate change.
Who: Steven Running - UM ecology professor; Phillip Farnes - retired civil engineer, Soil Conservation Service; Joseph Caprio - retired MSU professor, agricultural climatology; and James Taylor - attorney, editor, Environment and Climate News
Time line: September 2007 meeting

X 4. Updates on carbon sequestration study of Energy and Telecommunications Interim Committee.
Who: ETIC staff
Time line: September 2007 meeting; January, March, May, and July 2008 meetings

X 5. Overview of findings from Montana Climate Change Advisory Committee.
Who: DEQ staff, EQC staff
Time line: January 2008 meeting

X 6. EQC discussion and study direction.
Who: EQC members
Time line: September 2007 meeting; January, March, May, and July 2008 meetings

X 7. Presentation and review of preliminary report and any proposed legislation.
Who: EQC members and staff
Time line: July 2008 meeting

X 8. Review public comment on draft report and any proposed legislation.
Who: EQC members and staff
Time line: September 2008 meeting

X 9. Approval of final report and any findings, recommendations, or legislation.
Who: EQC members
Time line: September 2008 meeting

_____ BILL NO. _____

INTRODUCED BY _____
(Primary Sponsor)

BY REQUEST OF THE ENVIRONMENTAL QUALITY COUNCIL

A BILL FOR AN ACT ENTITLED: "AN ACT REQUIRING THE DEPARTMENT OF ADMINISTRATION TO ESTABLISH HIGH-PERFORMANCE BUILDING STANDARDS FOR STATE-OWNED BUILDINGS AND NEW STATE-LEASED BUILDINGS; AMENDING SECTION 17-7-201, MCA; AND PROVIDING AN APPLICABILITY DATE."

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF MONTANA:

NEW SECTION. **Section 1. High-performance building standards.** (1) New buildings and major renovations constructed under 17-7-202 and new state-leased buildings must:

(a) be built and operated as high-performance buildings; and

(b) exceed the International Energy Conservation Code most recently adopted by the department of labor and industry by 20% or to the extent that is cost-effective over the life of the building or major renovation.

(2) The department, in collaboration with the Montana university system and other state agencies, shall adopt high-performance building standards. In developing these standards, the department shall consider:

(a) integrated design principles to optimize energy performance, enhance indoor environmental quality, and conserve natural resources;

(b) cost-effectiveness, including productivity, deferred maintenance, and operational considerations;

(c) environmental, economic, and social sustainability of materials and components; and

(d) building functionality, durability, and maintenance.

Section 2. Section 17-7-201, MCA, is amended to read:

"17-7-201. Definitions ~~of building and construction~~. In this part, the following definitions apply:

(1) (a) "Building" includes a:

~~(a)~~(i) building, facility, or structure constructed or purchased wholly or in part with state ~~moneys~~ money;

~~(b)~~(ii) building, facility, or structure at a state institution;

~~(c)~~(iii) building, facility, or structure owned or to be owned by a state agency, including the department of transportation.

~~(2)~~(b) ~~"Building"~~ The term does not include a:

~~(a)~~(i) building, facility, or structure owned or to be owned by a county, city, town, school district, or special improvement district;

~~(b)~~(ii) facility or structure used as a component part of a highway or water conservation project.

~~(3)~~(2) "Construction" includes construction, repair, alteration, and equipping and furnishing during construction, repair, or alteration.

(3) "High-performance building" means a building that integrates and optimizes all major high-performance building attributes, including but not limited to:

(a) energy efficiency;

(b) durability;

(c) life-cycle performance; and

(d) occupant productivity."

NEW SECTION. **Section 3. Codification instruction.** [Section 1] is intended to be codified as an integral part of Title 17, chapter 7, part 2, and the provisions of Title 17, chapter 7, part 2, apply to [section 1].

NEW SECTION. **Section 4. Applicability.** [This act] applies to buildings constructed, renovated, or leased after [the effective date of this act].

- END -

_____ JOINT RESOLUTION NO. _____

INTRODUCED BY _____
(Primary Sponsor)

BY REQUEST OF THE ENVIRONMENTAL QUALITY COUNCIL

A JOINT RESOLUTION OF THE SENATE AND THE HOUSE OF REPRESENTATIVES OF THE STATE OF MONTANA REQUESTING AN INTERIM STUDY TO EVALUATE THE FEASIBILITY OF EXPANDED USE OF BIOMASS FEEDSTOCKS FOR ENERGY USE IN MONTANA.

WHEREAS, the expanded use of biomass from forests, agriculture, and other sources for energy may provide substantial economic and environmental benefits to Montanans; and

WHEREAS, the Environmental Quality Council, in conducting a climate change interim study during the 2007-08 interim, identified the expanded use of biomass feedstocks for energy use in Montana as a potentially important policy directive that deserves further evaluation.

NOW, THEREFORE, BE IT RESOLVED BY THE SENATE AND THE HOUSE OF REPRESENTATIVES OF THE STATE OF MONTANA:

That the Legislative Council be requested to designate an appropriate interim committee, pursuant to section 5-5-217, MCA, or direct sufficient staff resources to:

(1) evaluate the feasibility of expanding the Alternative Energy Revolving Loan Program for biomass feedstock projects;

(2) evaluate Montana biomass feedstock tax incentives as well as other state biomass feedstock tax incentives with respect to reducing the capital costs of biomass energy production, including electricity generation and heating of residences and public buildings;

(3) analyze the potential use of pilot projects for different forestry and agriculture residues and liquid fuel production;

(4) evaluate funding alternatives for research and development on techniques for the collection, processing, transportation, storage, and distribution of forestry and agriculture residues, as well as market development or expansion for these materials;

(5) document research that has been conducted to:

(a) characterize emissions from biomass boilers and the impacts those emissions have on community air pollution; and

(b) mitigate emission impacts; and

(6) evaluate the statutory impediments to Renewable Resource Grant and Loan Program eligibility for biomass feedstock projects, if any.

BE IT FURTHER RESOLVED, that if the study is assigned to staff, any findings or conclusions be presented to and reviewed by an appropriate committee designated by the Legislative Council.

BE IT FURTHER RESOLVED, that all aspects of the study, including presentation and review requirements, be concluded prior to September 15, 2010.

BE IT FURTHER RESOLVED, that the final results of the study, including any findings, conclusions, comments, or recommendations of the appropriate committee, be reported to the 62nd Legislature.

- END -

_____ BILL NO. _____

INTRODUCED BY _____
(Primary Sponsor)

BY REQUEST OF THE ENVIRONMENTAL QUALITY COUNCIL

A BILL FOR AN ACT ENTITLED: "AN ACT INCREASING THE INDIVIDUAL INCOME TAX CREDIT FOR ENERGY-CONSERVING EXPENDITURES; PROVIDING A TAX CREDIT FOR LIMITED LIABILITY PARTNERSHIPS, S. CORPORATIONS, OR OTHER DISREGARDED ENTITIES AND FOR TAXPAYERS WITH CERTAIN INCOME LEVELS; PROVIDING A REFUND FOR UNUSED ENERGY-CONSERVING EXPENDITURE TAX CREDITS; AMENDING SECTION 15-32-109, MCA; AND PROVIDING AN IMMEDIATE EFFECTIVE DATE AND A RETROACTIVE APPLICABILITY DATE."

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF MONTANA:

Section 1. Section 15-32-109, MCA, is amended to read:

"15-32-109. Credit for energy-conserving expenditures. (1) Subject to the restrictions of ~~subsection (2)~~ subsections (4) and (5), a resident individual taxpayer may take a credit against the taxpayer's tax liability under Title 15, chapter 30, for 25% of the taxpayer's expenditure for a capital investment in the physical attributes of a building or the installation of a water, lighting, heating, or cooling system in the building, ~~so~~ as long as ~~either type of investment is~~ the investments are for an energy conservation purpose, in an amount not to exceed ~~$500~~ $800.

(2) (a) Subject to the restrictions of subsections (4) and (5), a resident individual taxpayer with a family income of less than or equal to the amount established in subsection (2)(b) may take a credit against the taxpayer's tax liability under Title 15, chapter 30, for 25% of the taxpayer's expenditure for a capital investment in the physical attributes of a building or the installation of a water, lighting, heating, or cooling system in the building, as long as the investments are for an energy conservation purpose, in an amount not to exceed $800.

(b) To be eligible for the credit allowed by this subsection (2), a single taxpayer may not have income, as defined in 15-30-171, in excess of $15,140 and married couples filing jointly or separately on the same form may not have income, as defined in 15-30-171, in excess of $21,310. The department, by November 1 of each year, shall multiply the income amounts in this subsection (2)(b) by the inflation factor, as defined in 15-30-101,

for that year and round the product to the nearest $10. The resulting adjusted income is effective for that tax year and must be used in determining the eligibility for the credit allowed by this subsection (2).

(3) Subject to the restrictions of subsections (4) and (5), a limited liability partnership, S. corporation, or other disregarded entity may take a credit against the taxpayer's tax liability under Title 15, chapter 30, for 25% of the taxpayer's expenditure for a capital investment in the physical attributes of a residential rental building or the installation of a water, lighting, refrigeration, heating, or cooling system in the building, as long as the investments are for an energy conservation purpose, in an amount not to exceed $800.

(4) A taxpayer's expenditure may be claimed for credit under subsection (1), (2), or (3) but may be claimed under only one of those subsections.

~~(2)~~(5) The ~~credit~~ credits under ~~subsection~~ subsections (1):

~~(a) may not exceed the taxpayer's tax liability; and~~

~~(b) is~~ through (3) are subject to the provisions of 15-32-104.

(6) The credits under subsections (1) and (3) may not exceed the taxpayer's tax liability. If the amount of the tax credit under subsection (2) exceeds the taxpayer's income tax liability for the tax year, the amount of the excess must be refunded to the taxpayer. The credit under subsection (2) may be claimed even if the claimant has no taxable income.

(7) If the taxpayer is an S. corporation, the shareholders may claim a pro rata share of the tax credit. If the taxpayer is a partnership or disregarded entity, the credit may be claimed by the partners or members in the same proportion used to report the partnership's or entity's income or loss for Montana income tax purposes."

NEW SECTION. **Section 2. Effective date.** [This act] is effective on passage and approval.

NEW SECTION. **Section 3. Retroactive applicability.** [This act] applies retroactively, within the meaning of 1-2-109, to tax years beginning after December 31, 2008.

- END -

_____ BILL NO. _____

INTRODUCED BY _____
(Primary Sponsor)

BY REQUEST OF THE ENVIRONMENTAL QUALITY COUNCIL

A BILL FOR AN ACT ENTITLED: "AN ACT CREATING A WEATHERIZATION ACCOUNT; ALLOCATING TO THE ACCOUNT A PERCENTAGE OF THE OIL AND NATURAL GAS PRODUCTION TAXES; AMENDING SECTIONS 15-36-331, 90-4-201, AND 90-4-215, MCA; AND PROVIDING AN EFFECTIVE DATE."

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF MONTANA:

Section 1. Section 15-36-331, MCA, is amended to read:

"15-36-331. Distribution of taxes. (1) (a) For each calendar quarter, the department shall determine the amount of tax, late payment interest, and penalties collected under this part.

(b) For the purposes of distribution of oil and natural gas production taxes to county and school district taxing units under 15-36-332 and to the state, the department shall determine the amount of oil and natural gas production taxes paid on production in the taxing unit.

(2) (a) The amount of oil and natural gas production taxes collected for the privilege and license tax pursuant to 82-11-131 must be deposited, in accordance with the provisions of 17-2-124, in the state special revenue fund for the purpose of paying expenses of the board, as provided in 82-11-135.

(b) The amount of the tax for the oil, gas, and coal natural resource account established in 90-6-1001 must be deposited in the account.

(3) (a) For each tax year, the amount of oil and natural gas production taxes determined under subsection (1)(b) is allocated to each county according to the following schedule:

Big Horn	45.05%
Blaine	58.39%
Carbon	48.27%
Chouteau	58.14%
Custer	69.53%
Daniels	50.81%

1	Dawson	47.79%
2	Fallon	41.78%
3	Fergus	69.18%
4	Garfield	45.96%
5	Glacier	58.83%
6	Golden Valley	58.37%
7	Hill	64.51%
8	Liberty	57.94%
9	McCone	49.92%
10	Musselshell	48.64%
11	Petroleum	48.04%
12	Phillips	54.02%
13	Pondera	54.26%
14	Powder River	60.9%
15	Prairie	40.38%
16	Richland	47.47%
17	Roosevelt	45.71%
18	Rosebud	39.33%
19	Sheridan	47.99%
20	Stillwater	53.51%
21	Sweet Grass	61.24%
22	Teton	46.1%
23	Toole	57.61%
24	Valley	51.43%
25	Wibaux	49.16%
26	Yellowstone	46.74%
27	All other counties	50.15%

28 (b) The oil and natural gas production taxes allocated to each county must be deposited in the state
29 special revenue fund and transferred to each county for distribution, as provided in 15-36-332.
30 (4) The department shall, in accordance with the provisions of 17-2-124, distribute the state portion of

oil and natural gas production taxes remaining after the distributions pursuant to subsections (2) and (3) as follows:

(a) for each fiscal year through the fiscal year ending June 30, 2011, to be distributed as follows:

(i) 1.23% to the coal bed methane protection account established in 76-15-904;

(ii) 1.45% to the natural resources projects state special revenue account established in 15-38-302;

(iii) 1.45% to the natural resources operations state special revenue account established in 15-38-301;

(iv) 2.99% to the orphan share account established in 75-10-743;

(v) 2.65% to the state special revenue fund to be appropriated to the Montana university system for the purposes of the state tax levy as provided in 20-25-423;

(vi) 5% to the weatherization account established in 90-4-215; and

~~(vi)~~(vii) all remaining proceeds to the state general fund;

(b) for fiscal years beginning after June 30, 2011, to be distributed as follows:

(i) 2.16% to the natural resources projects state special revenue account established in 15-38-302;

(ii) 2.02% to the natural resources operations state special revenue account established in 15-38-301;

(iii) 2.95% to the orphan share account established in 75-10-743;

(iv) 2.65% to the state special revenue fund to be appropriated to the Montana university system for the purposes of the state tax levy as provided in 20-25-423;

(v) 5% to the weatherization account established in 90-4-215; and

~~(v)~~(vi) all remaining proceeds to the state general fund."

Section 2. Section 90-4-201, MCA, is amended to read:

"90-4-201. Weatherization money sources -- consolidation. (1) All federal funds and grants available and becoming eligible to Montana under the provisions of the U.S. department of energy low-income weatherization assistance program, the U.S. department of health and human services low-income home energy assistance program, and any other federal funds intended to increase the energy efficiency of dwellings occupied by persons of low and fixed incomes, except for Title XX of the Social Security Act, are to be coordinated and are appropriated to the department of public health and human services.

(2) The department of public health and human services shall allocate and spend for home weatherization programs under this part at least 5% of the funds received from the U.S. department of health and human services low-income home energy assistance program if federal law permits this allocation.

(3) The department of public health and human services shall use the funds in the weatherization account established in 90-4-215 for home weatherization programs under this part."

Section 3. Section 90-4-215, MCA, is amended to read:

"**90-4-215. ~~Account~~ Accounts established -- use.** (1) There is an energy conservation and energy assistance account within the federal special revenue fund established in 17-2-102.

(2) There is a weatherization account in the state special revenue fund. There must be deposited in the account the proceeds from the distribution of oil and natural gas production taxes, as provided in 15-36-331, and any other state funds allocated to the account.

(3) The amounts deposited in the account established in subsection (1) and interest and earnings on the account may be used by the department of public health and human services to fund its low-income energy assistance and home weatherization programs ~~created~~ referred to in 90-4-201.

(4) The amounts deposited in the account established in subsection (2) and interest and earnings on the account must be used by the department of public health and human services to fund its home weatherization programs referred to in 90-4-201."

NEW SECTION. **Section 4. Effective date.** [This act] is effective July 1, 2009.

- END -

_____ BILL NO. _____

INTRODUCED BY _____
(Primary Sponsor)

BY REQUEST OF THE ENVIRONMENTAL QUALITY COUNCIL

A BILL FOR AN ACT ENTITLED: "AN ACT INCREASING THE AMOUNT OF MONEY TRANSFERRED TO THE SENIOR CITIZENS AND PERSONS WITH DISABILITIES TRANSPORTATION SERVICES ACCOUNT FROM MOTOR VEHICLE REVENUE DEPOSITED IN THE STATE GENERAL FUND; AMENDING SECTION 15-1-122, MCA; AND PROVIDING AN EFFECTIVE DATE."

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF MONTANA:

Section 1. Section 15-1-122, MCA, is amended to read:

"15-1-122. Fund transfers. (1) There is transferred from the state general fund to the adoption services account, provided for in 42-2-105, a base amount of $36,764, and the amount of the transfer must be increased by 10% in each succeeding fiscal year.

(2) There is transferred from the state general fund to the department of transportation state special revenue nonrestricted account a base amount of $3,050,205, increased by 1.5% in each succeeding fiscal year.

(3) For each fiscal year, there is transferred from the state general fund to the accounts, entities, or recipients indicated the following amounts:

(a) to the motor vehicle recycling and disposal program provided for in Title 75, chapter 10, part 5, 1.48% of the motor vehicle revenue deposited in the state general fund in each fiscal year. The amount of 9.48% of the allocation in each fiscal year must be used for the purpose of reimbursing the hired removal of abandoned vehicles. Any portion of the allocation not used for abandoned vehicle removal reimbursement must be used as provided in 75-10-532.

(b) to the noxious weed state special revenue account provided for in 80-7-816, 1.50% of the motor vehicle revenue deposited in the state general fund in each fiscal year;

(c) to the department of fish, wildlife, and parks:

(i) 0.46% of the motor vehicle revenue deposited in the state general fund, with the applicable percentage to be:

(A) used to:

(I) acquire and maintain pumpout equipment and other boat facilities, 4.8% in each fiscal year;

(II) administer and enforce the provisions of Title 23, chapter 2, part 5, 19.1% in each fiscal year;

(III) enforce the provisions of 23-2-804, 11.1% in each fiscal year; and

(IV) develop and implement a comprehensive program and to plan appropriate off-highway vehicle recreational use, 16.7% in each fiscal year; and

(B) deposited in the state special revenue fund established in 23-1-105 in an amount equal to 48.3% in each fiscal year;

(ii) 0.10% of the motor vehicle revenue deposited in the state general fund in each fiscal year, with 50% of the amount to be used for enforcing the purposes of 23-2-601, 23-2-602, 23-2-611, 23-2-614 through 23-2-618, 23-2-621, 23-2-622, 23-2-631 through 23-2-635, and 23-2-641 through 23-2-644 and 50% of the amount designated for use in the development, maintenance, and operation of snowmobile facilities; and

(iii) 0.16% of the motor vehicle revenue deposited in the state general fund in each fiscal year to be deposited in the motorboat account to be used as provided in 23-2-533;

(d) 0.64% of the motor vehicle revenue deposited in the state general fund in each fiscal year, with 24.55% to be deposited in the state veterans' cemetery account provided for in 10-2-603 and with 75.45% to be deposited in the veterans' services account provided for in 10-2-112(1);

(e) ~~0.30%~~ 0.59% of the motor vehicle revenue deposited in the state general fund in each fiscal year for deposit in the state special revenue fund to the credit of the senior citizens and persons with disabilities transportation services account provided for in 7-14-112; and

(f) to the search and rescue account provided for in 10-3-801, 0.04% of the motor vehicle revenue deposited in the state general fund in each fiscal year.

(4) For the purposes of this section, "motor vehicle revenue deposited in the state general fund" means revenue received from:

(a) fees for issuing a motor vehicle title paid pursuant to 61-3-203;

(b) fees, fees in lieu of taxes, and taxes for vehicles, vessels, and snowmobiles registered or reregistered pursuant to 61-3-321 and 61-3-562;

(c) GVW fees for vehicles registered for licensing pursuant to Title 61, chapter 3, part 3; and

(d) all money collected pursuant to 15-1-504(3).

(5) The amounts transferred from the general fund to the designated recipient must be appropriated as

state special revenue in the general appropriations act for the designated purposes."

NEW SECTION. **Section 2. Effective date.** [This act] is effective July 1, 2009.

- END -

_____ BILL NO. _____

INTRODUCED BY _____
(Primary Sponsor)

BY REQUEST OF THE ENVIRONMENTAL QUALITY COUNCIL

A BILL FOR AN ACT ENTITLED: "AN ACT REQUIRING THE DEPARTMENT OF TRANSPORTATION TO BIENNIALLY REPORT TO THE REVENUE AND TRANSPORTATION INTERIM COMMITTEE ON CONSERVATION MEASURES IN THE TRANSPORTATION SECTOR; AMENDING SECTION 5-5-227, MCA; AND PROVIDING AN IMMEDIATE EFFECTIVE DATE."

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF MONTANA:

Section 1. Section 5-5-227, MCA, is amended to read:

"5-5-227. Revenue and transportation interim committee -- powers and duties -- revenue estimating and use of estimates. (1) The revenue and transportation interim committee has administrative rule review, draft legislation review, program evaluation, and monitoring functions for the department of revenue and the department of transportation and the entities attached to the departments for administrative purposes.

(2) (a) The committee must have prepared by December 1 for introduction during each regular session of the legislature in which a revenue bill is under consideration an estimate of the amount of revenue projected to be available for legislative appropriation.

(b) The committee may prepare for introduction during a special session of the legislature in which a revenue bill or an appropriation bill is under consideration an estimate of the amount of projected revenue. The revenue estimate is considered a subject specified in the call of a special session under 5-3-101.

(3) The committee's estimate, as introduced in the legislature, constitutes the legislature's current revenue estimate until amended or until final adoption of the estimate by both houses. It is intended that the legislature's estimates and the assumptions underlying the estimates will be used by all agencies with responsibilities for estimating revenue or costs, including the preparation of fiscal notes.

(4) The department of transportation shall biennially report to the committee on measures that conserve energy in the transportation sector, including conservation measures specific to city street design. Each biennial report must document the progression of the department's efforts over time to conserve energy in the

transportation sector.

~~(4)~~(5) The legislative services division shall provide staff assistance to the committee. The committee may request the assistance of the staffs of the office of the legislative fiscal analyst, the legislative auditor, the department of revenue, and any other agency that has information regarding any of the tax or revenue bases of the state."

NEW SECTION. **Section 2. Effective date.** [This act] is effective on passage and approval.

- END -

_____ BILL NO. _____

INTRODUCED BY _____
(Primary Sponsor)

BY REQUEST OF THE ENVIRONMENTAL QUALITY COUNCIL

A BILL FOR AN ACT ENTITLED: "AN ACT REPEALING THE TERMINATION DATE FOR CREDIT AGAINST AIR QUALITY PERMITTING FEES FOR CERTAIN USES OF POSTCONSUMER GLASS IN RECYCLED MATERIAL; REPEALING THE TERMINATION DATE FOR THE TAX CREDIT FOR INVESTMENT IN PROPERTY USED TO COLLECT OR PROCESS RECLAIMABLE MATERIALS; REPEALING THE TERMINATION DATE FOR THE TAX DEDUCTION FOR THE PURCHASE OF RECYCLED MATERIALS; AMENDING SECTIONS 75-2-225 AND 75-2-226, MCA; REPEALING SECTION 9, CHAPTER 712, LAWS OF 1991, SECTIONS 4 AND 5, CHAPTER 542, LAWS OF 1995, SECTION 1, CHAPTER 411, LAWS OF 1997, SECTIONS 4, 5, 6, AND 7, CHAPTER 398, LAWS OF 2001, SECTION 8, CHAPTER 516, LAWS OF 2001, SECTIONS 3 AND 5, CHAPTER 129, LAWS OF 2005, AND SECTIONS 1, 2, 3, 4, 5, 6, 7, AND 8, CHAPTER 569, LAWS OF 2005; AND PROVIDING AN EFFECTIVE DATE."

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF MONTANA:

Section 1. Section 75-2-225, MCA, is amended to read:

"75-2-225. ~~(Temporary)~~ Amount and duration of credit -- how claimed. (1) An applicant may receive a credit against the fees imposed in 75-2-220 for using postconsumer glass in recycled material if the applicant qualifies under 75-2-226.

(2) ~~Subject to 75-2-226(2), an~~ An applicant qualifying for a credit under 75-2-226 is entitled to claim a credit, as provided in subsection (3) of this section, for using postconsumer glass in recycled material in the calendar year subsequent to the calendar year in which the postconsumer glass was used in recycled material.

(3) (a) The amount of the credit that may be claimed under this section is $8 for each ton of postconsumer glass that was used as a substitute for nonrecycled material in the calendar year prior to the calendar year for which the applicant is paying fees for permits under 75-2-220.

(b) The maximum credit allowable in any calendar year for fees payable under 75-2-220 is $2,000 or the total amount of fees due, whichever is less. ~~(Terminates December 31, 2009--secs. 3, 5, Ch. 129, L. 2005.)~~"

Section 2. Section 75-2-226, MCA, is amended to read:

"75-2-226. ~~(Temporary)~~ Credit for use of postconsumer glass. (1) The following requirements must be met for an applicant to be entitled to a credit for the use of postconsumer glass:

(a) The postconsumer glass must have been used in recycled material in the calendar year prior to the calendar year in which the applicant is applying for and paying for permits under 75-2-220.

(b) (i) The applicant claiming a credit must be a person who, as an owner, including a contract purchaser or lessee, or who pursuant to an agreement owns, leases, or has a beneficial interest in a business that uses postconsumer glass in recycled materials. The use of postconsumer glass as recycled material may be a minor or nonprofit part of a business otherwise engaged in a business activity.

(ii) The applicant may but need not operate or conduct a business that uses postconsumer glass as recycled material. If more than one person has an interest in a business with qualifying uses of postconsumer glass, they may allocate all or any part of the allowable credit among themselves and their successors or assigns.

(c) The business must have been owned or leased by the applicant claiming the credit during the calendar year prior to the calendar year for which the permit fees are due under 75-2-220, except as otherwise provided in subsection (1)(b), and must have used postconsumer glass in recycled material during the calendar year prior to the calendar year for which the credit is claimed.

(d) The postconsumer glass used in recycled material may not be an industrial waste generated by the person claiming the credit unless:

(i) the person generating the waste historically has disposed of the waste onsite or in a licensed landfill; and

(ii) standard industrial practice has not generally included the reuse of the waste in the manufacturing process.

~~(2) A credit under this section may be claimed by an applicant for a business only if the qualifying postconsumer glass was used in recycled material before January 1, 2010.~~

~~(3)~~(2) The credit provided by this section is not in lieu of any other incentive to which the applicant otherwise may be entitled under Title 15 or this chapter.

~~(4)~~(3) A credit otherwise allowable under this section that is not used by the applicant in the calendar year for which the permits are applied may not be:

(a) carried forward to offset an applicant's permit fees for any succeeding calendar year; or

(b) carried back to offset an applicant's permit fees for any preceding calendar year. ~~(Terminates December 31, 2009--secs. 3, 5, Ch. 129, L. 2005.)~~"

NEW SECTION. **Section 3. Repealer.** Section 9, Chapter 712, Laws of 1991, sections 4 and 5, Chapter 542, Laws of 1995, section 1, Chapter 411, Laws of 1997, sections 4, 5, 6, and 7, Chapter 398, Laws of 2001, section 8, Chapter 516, Laws of 2001, sections 3 and 5, Chapter 129, Laws of 2005, and sections 1, 2, 3, 4, 5, 6, 7, and 8, Chapter 569, Laws of 2005, are repealed.

NEW SECTION. **Section 4. Effective date.** [This act] is effective July 1, 2009.

- END -

_____ BILL NO. _____

INTRODUCED BY _____
(Primary Sponsor)

BY REQUEST OF THE ENVIRONMENTAL QUALITY COUNCIL

A BILL FOR AN ACT ENTITLED: "AN ACT ESTABLISHING A REVOLVING LOAN PROGRAM TO FINANCE MACHINERY AND EQUIPMENT USED FOR RECYCLING; PROVIDING THAT MOTOR VEHICLE RECYCLING AND DISPOSAL PROGRAM FUNDS BE DEPOSITED IN A REVOLVING LOAN ACCOUNT; GRANTING RULEMAKING AUTHORITY; ESTABLISHING OUTCOME MEASURES; AMENDING SECTION 75-10-532, MCA; AND PROVIDING AN EFFECTIVE DATE."

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF MONTANA:

NEW SECTION. **Section 1. Recycling equipment revolving loan program -- account.** (1) There is a recycling equipment revolving loan program to be administered by the department of environmental quality.

(2) There is a state special revenue account called the recycling equipment revolving loan account to the credit of the department.

(3) The recycling equipment revolving loan account consists of $1 million deposited into the account from the motor vehicle recycling and disposal program pursuant to 75-10-532 and money from any other source. Any interest and income earned on the account and any interest that is generated from a loan repayment must be deposited into the account and used to sustain the recycling equipment revolving loan program. Any appropriated funds in the account that are not loaned must remain in the account.

(4) Funds from the recycling equipment revolving loan account may be used to provide loans to private entities, units of local government, units of the university system, tribal governments, and nonprofit organizations to assist in the purchase of machinery and equipment used to increase the diversion of solid waste from Montana landfills and to expand recycling opportunities.

(5) The amount of a loan may not exceed $50,000, and the loan must be repaid within 10 years.

NEW SECTION. **Section 2. Administration of revolving loan account -- rulemaking authority.** (1) The department of environmental quality shall adopt rules establishing:

(a) eligibility criteria and other matters that the department considers necessary to ensure repayment of loans and to encourage maximum use of the account for recycling uses;

(b) processes and procedures for disbursing loans, including the agencies or organizations that are allowed to process the loan application for the department; and

(c) terms and conditions for the loans, including repayment schedules and interest rates.

(2) Administrative costs charged to the account may not exceed 10% of the total loans or $75,000 a year, whichever is greater. Legal fees and costs associated with collection of debt on the principal of loans are not considered administrative costs.

(3) The loan repayment period may not exceed 10 years. The loans must be made at a low interest rate. The department may set the interest rate at an amount that will cover its administrative costs, but the rate may not be less than 1% a year. The department may seek recovery of the amount of principal loaned in the event of default.

NEW SECTION. **Section 3. Outcome measures.** The department of environmental quality shall develop reasonable outcome measures by which the success of the recycling equipment revolving loan program provided for in [sections 1 through 3] must be measured on an annual basis. Minimal outcomes that must be measured include:

(1) a loan loss ratio of under 5%;

(2) a listing of the loans made, including the amounts and purposes of the loans;

(3) an assessment of the impact of the loans on the amount and type of recycling in the local area where the loan was made; and

(4) an estimate of the amount of material diverted from the landfill because of the loan for the 3 years following disbursement of the loan.

Section 4. Section 75-10-532, MCA, is amended to read:

"75-10-532. Disposition of money collected. (1) Except as provided in subsection (2), ~~All~~ money received from the sale of junk vehicles or from recycling of the material and all motor vehicle wrecking facility license fees must be remitted to the state, as provided in 15-1-504. The money must be used for the control, collection, recycling, and disposal of junk vehicles and component parts and for the removal of abandoned vehicles.

(2) For the 2009 biennium, $1 million must be transferred to the recycling equipment revolving loan account established in [section 1]."

NEW SECTION. **Section 5. Notification to tribal governments.** The secretary of state shall send a copy of [this act] to each tribal government located on the seven Montana reservations and to the Little Shell Chippewa tribe.

NEW SECTION. **Section 6. Codification instruction.** [Sections 1 through 3] are intended to be codified as an integral part of Title 75, and the provisions of Title 75 apply to [sections 1 through 3].

NEW SECTION. **Section 7. Effective date.** [This act] is effective July 1, 2009.

- END -

_____ BILL NO. _____

INTRODUCED BY _____
(Primary Sponsor)

BY REQUEST OF THE ENVIRONMENTAL QUALITY COUNCIL

A BILL FOR AN ACT ENTITLED: "AN ACT REMOVING THE SUNSET ON INTEREST INCOME FROM THE COAL SEVERANCE TAX PERMANENT FUND APPROPRIATED TO THE MONTANA MANUFACTURING EXTENSION CENTER, THE GROWTH THROUGH AGRICULTURE PROGRAM, AND THE MONTANA COOPERATIVE DEVELOPMENT CENTER; REQUIRING THAT A PORTION OF THE APPROPRIATION TO THE MONTANA MANUFACTURING EXTENSION CENTER BE USED IN COLLABORATION WITH THE DEPARTMENT OF ENVIRONMENTAL QUALITY TO PROMOTE RECYCLING; AMENDING SECTION 15-35-108, MCA, SECTION 10, CHAPTER 10, SPECIAL LAWS OF MAY 2000, AND SECTION 3, CHAPTER 481, LAWS OF 2003; AND PROVIDING EFFECTIVE DATES AND AN APPLICABILITY DATE."

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF MONTANA:

Section 1. Section 15-35-108, MCA, is amended to read:

"15-35-108. (Temporary) Disposal of severance taxes. Severance taxes collected under this chapter must, in accordance with the provisions of 17-2-124, be allocated as follows:

(1) Fifty percent of total coal severance tax collections is allocated to the trust fund created by Article IX, section 5, of the Montana constitution. The trust fund money must be deposited in the fund established under 17-6-203(6) and invested by the board of investments as provided by law.

(2) The amount of 12% of coal severance tax collections is allocated to the long-range building program account established in 17-7-205.

(3) The amount of 5.46% must be credited to an account in the state special revenue fund to be allocated by the legislature for provision of basic library services for the residents of all counties through library federations and for payment of the costs of participating in regional and national networking, conservation districts, and the Montana Growth Through Agriculture Act. Expenditures of the allocation may be made only from this account. Money may not be transferred from this account to another account other than the general fund. Any unreserved fund balance at the end of each fiscal year must be deposited in the general fund.

(4) The amount of 1.27% must be allocated to a permanent fund account for the purpose of parks acquisition or management. Income from this permanent fund account, excluding unrealized gains and losses, must be appropriated for the acquisition, development, operation, and maintenance of any sites and areas described in 23-1-102.

(5) The amount of 0.95% must be allocated to the debt service fund type to the credit of the renewable resource loan debt service fund.

(6) The amount of 0.63% must be allocated to a trust fund for the purpose of protection of works of art in the capitol and for other cultural and aesthetic projects. Income from this trust fund account, excluding unrealized gains and losses, must be appropriated for protection of works of art in the state capitol and for other cultural and aesthetic projects.

(7) The amount of 2.9% must be credited to the oil, gas, and coal natural resource account established in 90-6-1001.

(8) After the allocations are made under subsections (2) through (7), $250,000 for the fiscal year must be credited to the coal and uranium mine permitting and reclamation program account established in 82-4-244.

(9) (a) Subject to subsection (9)(b), all other revenue from severance taxes collected under the provisions of this chapter must be credited to the general fund of the state.

(b) The interest income from $140 million of the coal severance tax permanent fund that is deposited in the general fund is statutorily appropriated, as provided in 17-7-502, on an annual basis as follows:

(i) $65,000 to the cooperative development center;

(ii) $1.25 million for the growth through agriculture program provided for in Title 90, chapter 9;

(iii) $3.65 million to the research and commercialization state special revenue account created in 90-3-1002;

(iv) to the department of commerce:

(A) $125,000 for a small business development center;

(B) $50,000 for a small business innovative research program;

(C) $425,000 for certified regional development corporations;

(D) ~~$200,000~~ subject to subsection (9)(c), $300,000 for the Montana manufacturing extension center at Montana state university-Bozeman; and

(E) $300,000 for export trade enhancement.

(c) At least 35% of the funding received under subsection (9)(b)(iv)(D) must be used in collaboration with

the department of environmental quality to encourage manufacturers and commercial business owners to reduce their waste streams through source reduction, recycling, reuse, or use of recycled-content products or feedstocks.

(10) The department of commerce, in coordination with the department of environmental quality, shall submit a biennial report to the environmental quality council established in 5-16-101 outlining activities and expenditures required under subsection (9)(c). (Terminates June 30, 2010--sec. 6, Ch. 481, L. 2003.)

15-35-108. (Effective July 1, 2010) Disposal of severance taxes. Severance taxes collected under this chapter must, in accordance with the provisions of 17-2-124, be allocated as follows:

(1) Fifty percent of total coal severance tax collections is allocated to the trust fund created by Article IX, section 5, of the Montana constitution. The trust fund money must be deposited in the fund established under 17-6-203(6) and invested by the board of investments as provided by law.

(2) The amount of 12% of coal severance tax collections is allocated to the long-range building program account established in 17-7-205.

(3) The amount of 5.46% must be credited to an account in the state special revenue fund to be allocated by the legislature for provision of basic library services for the residents of all counties through library federations and for payment of the costs of participating in regional and national networking, conservation districts, and the Montana Growth Through Agriculture Act. Expenditures of the allocation may be made only from this account. Money may not be transferred from this account to another account other than the general fund. Any unreserved fund balance at the end of each fiscal year must be deposited in the general fund.

(4) The amount of 1.27% must be allocated to a permanent fund account for the purpose of parks acquisition or management. Income from this permanent fund account, excluding unrealized gains and losses, must be appropriated for the acquisition, development, operation, and maintenance of any sites and areas described in 23-1-102.

(5) The amount of 0.95% must be allocated to the debt service fund type to the credit of the renewable resource loan debt service fund.

(6) The amount of 0.63% must be allocated to a trust fund for the purpose of protection of works of art in the capitol and for other cultural and aesthetic projects. Income from this trust fund account, excluding unrealized gains and losses, must be appropriated for protection of works of art in the state capitol and for other cultural and aesthetic projects.

(7) The amount of 2.9% must be credited to the oil, gas, and coal natural resource account established in 90-6-1001.

(8) After the allocations are made under subsections (2) through (7), $250,000 for the fiscal year must be credited to the coal and uranium mine permitting and reclamation program account established in 82-4-244.

(9) All other revenue from severance taxes collected under the provisions of this chapter must be credited to the general fund of the state."

Section 2. Section 15-35-108, MCA, is amended to read:

"15-35-108. (Temporary) Disposal of severance taxes. Severance taxes collected under this chapter must, in accordance with the provisions of 17-2-124, be allocated as follows:

(1) Fifty percent of total coal severance tax collections is allocated to the trust fund created by Article IX, section 5, of the Montana constitution. The trust fund money must be deposited in the fund established under 17-6-203(6) and invested by the board of investments as provided by law.

(2) The amount of 12% of coal severance tax collections is allocated to the long-range building program account established in 17-7-205.

(3) The amount of 5.46% must be credited to an account in the state special revenue fund to be allocated by the legislature for provision of basic library services for the residents of all counties through library federations and for payment of the costs of participating in regional and national networking, conservation districts, and the Montana Growth Through Agriculture Act. Expenditures of the allocation may be made only from this account. Money may not be transferred from this account to another account other than the general fund. Any unreserved fund balance at the end of each fiscal year must be deposited in the general fund.

(4) The amount of 1.27% must be allocated to a permanent fund account for the purpose of parks acquisition or management. Income from this permanent fund account, excluding unrealized gains and losses, must be appropriated for the acquisition, development, operation, and maintenance of any sites and areas described in 23-1-102.

(5) The amount of 0.95% must be allocated to the debt service fund type to the credit of the renewable resource loan debt service fund.

(6) The amount of 0.63% must be allocated to a trust fund for the purpose of protection of works of art in the capitol and for other cultural and aesthetic projects. Income from this trust fund account, excluding unrealized gains and losses, must be appropriated for protection of works of art in the state capitol and for other cultural and aesthetic projects.

(7) The amount of 2.9% must be credited to the oil, gas, and coal natural resource account established

in 90-6-1001.

(8) After the allocations are made under subsections (2) through (7), $250,000 for the fiscal year must be credited to the coal and uranium mine permitting and reclamation program account established in 82-4-244.

(9) (a) Subject to subsection (9)(b), all other revenue from severance taxes collected under the provisions of this chapter must be credited to the general fund of the state.

(b) The interest income from $140 million of the coal severance tax permanent fund that is deposited in the general fund is statutorily appropriated, as provided in 17-7-502, on an annual basis as follows:

(i) $65,000 to the cooperative development center;

(ii) $1.25 million for the growth through agriculture program provided for in Title 90, chapter 9;

(iii) $3.65 million to the research and commercialization state special revenue account created in 90-3-1002;

(iv) to the department of commerce:

(A) $125,000 for a small business development center;

(B) $50,000 for a small business innovative research program;

(C) $425,000 for certified regional development corporations;

(D) $200,000 for the Montana manufacturing extension center at Montana state university-Bozeman; and

(E) $300,000 for export trade enhancement. (Terminates June 30, 2010--sec. 6, Ch. 481, L. 2003.)

15-35-108. (Effective July 1, 2010) Disposal of severance taxes. Severance taxes collected under this chapter must, in accordance with the provisions of 17-2-124, be allocated as follows:

(1) Fifty percent of total coal severance tax collections is allocated to the trust fund created by Article IX, section 5, of the Montana constitution. The trust fund money must be deposited in the fund established under 17-6-203(6) and invested by the board of investments as provided by law.

(2) The amount of 12% of coal severance tax collections is allocated to the long-range building program account established in 17-7-205.

(3) The amount of 5.46% must be credited to an account in the state special revenue fund to be allocated by the legislature for provision of basic library services for the residents of all counties through library federations and for payment of the costs of participating in regional and national networking, conservation districts, and the Montana Growth Through Agriculture Act. Expenditures of the allocation may be made only from this account. Money may not be transferred from this account to another account other than the general fund. Any unreserved

fund balance at the end of each fiscal year must be deposited in the general fund.

(4) The amount of 1.27% must be allocated to a permanent fund account for the purpose of parks acquisition or management. Income from this permanent fund account, excluding unrealized gains and losses, must be appropriated for the acquisition, development, operation, and maintenance of any sites and areas described in 23-1-102.

(5) The amount of 0.95% must be allocated to the debt service fund type to the credit of the renewable resource loan debt service fund.

(6) The amount of 0.63% must be allocated to a trust fund for the purpose of protection of works of art in the capitol and for other cultural and aesthetic projects. Income from this trust fund account, excluding unrealized gains and losses, must be appropriated for protection of works of art in the state capitol and for other cultural and aesthetic projects.

(7) The amount of 2.9% must be credited to the oil, gas, and coal natural resource account established in 90-6-1001.

(8) After the allocations are made under subsections (2) through (7), $250,000 for the fiscal year must be credited to the coal and uranium mine permitting and reclamation program account established in 82-4-244.

(9) (a) ~~All~~ Subject to subsection (9)(b), all other revenue from severance taxes collected under the provisions of this chapter must be credited to the general fund of the state.

(b) The interest income from the coal severance tax permanent fund that is deposited in the general fund is statutorily appropriated, as provided in 17-7-502, on an annual basis in the amounts specified in this subsection (9)(b) as follows:

(i) $65,000 to the cooperative development center;

(ii) $1.25 million for the growth through agriculture program provided for in Title 90, chapter 9; and

(iii) subject to subsection (9)(c), $300,000 to the department of commerce for the Montana manufacturing extension center at Montana state university-Bozeman.

(c) At least 35% of the funding received under subsection (9)(b)(iii) must be used in collaboration with the department of environmental quality to encourage manufacturers and commercial business owners to reduce their waste streams through source reduction, recycling, reuse, or use of recycled-content products or feedstocks.

(10) The department of commerce, in coordination with the department of environmental quality, shall submit a biennial report to the environmental quality council established in 5-16-101 outlining activities and expenditures required under subsection (9)(c)."

Section 3. Section 10, Chapter 10, Special Laws of May 2000, is amended to read:

"**Section 10. Termination.** (1) [Section 1] terminates June 30, 2001.

(2) ~~[Sections 2 through 4]~~ [Sections 2 and 4] terminate June 30, 2005."

Section 4. Section 3, Chapter 481, Laws of 2003, is amended to read:

"**Section 3.** Section 10, Chapter 10, Special Laws of May 2000, is amended to read:

"**Section 10. Termination.** (1) [Section 1] terminates June 30, 2001.

(2) ~~[Sections 2 through 4]~~ [Sections 2 and 4] terminate June 30, 2005.

~~(3) [Section 3] terminates June 30, 2010.~~""

NEW SECTION. **Section 5. Effective dates.** (1) Except as provided in subsections (2) and (3), [this act] is effective October 1, 2009.

(2) [Section 1 and this section] are effective July 1, 2009.

(3) [Section 2] is effective July 1, 2010.

NEW SECTION. **Section 6. Applicability.** [This act] applies to severance tax collections from coal produced after June 30, 2009.

- END -

ENVIRONMENTAL QUALITY COUNCIL

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PO Box 203201
Helena, MT 59620-3201

Dear Commissioner Stearns,

On behalf of the Legislative Environmental Quality Council (EQC), I am writing to encourage your office and the Montana University System to assist the Legislature in its effort to promote the conservation of our state's resources. As part of the EQC's Climate Change Study, the Council has identified two areas in which MUS programs and research could be especially useful: tracking the production and consumption of locally grown foods and advancing biomass technologies.

The EQC supports increased use of locally grown foods as an economic benefit to the state and an opportunity to reduce costs and emissions associated with the manufacturing and transportation of our food supply. The EQC is asking MUS for help developing a formal tracking system of locally grown foods. By doing so, the EQC hopes to better understand where and how local foods are most used, identify efficiencies within that system, and identify where improvements are needed to encourage greater use of such products.

The EQC also supports increased use of biomass technologies as an alternative energy source and encourages MUS to continue its existing research and programs in this area. The EQC requests a report from MUS in the next biennium regarding these activities and any recommendations about the feasibility of the collection, processing, transportation, storage, and distribution of forestry and agricultural residues. The EQC would also appreciate recommendations on the development and expansion of markets for biomass materials, as a way to reduce our use of fossil fuels.

Commissioner Stearns, the EQC appreciates the time and attention you and the MUS staff give these matters. We look forward to working with you in the coming months. Please let me know if I, or the EQC staff, can be of assistance.

Sincerely,

David Wanzenried, Chairman

5 September 2008

To: Mick Robinson
Deputy Commissioner
Montana University System

From: Bob Duringer
Vice President for Administration & Finance
The University of Montana

Subject: Information for the Environmental Quality Council

As requested, I am providing you with an update on the two areas of interest expressed by the Environmental Quality Council.

Farm to College

- Began in 2003. The objective of the program is to support Montana food producers by "buying local".
- To date we have purchased approximately $3,000,000 of locally produced food from 53 different suppliers.
- Last fiscal year we purchased $702,000 from local producers, this represents 20% of all the food we purchase.
- When available, we buy breads, fruits, vegetables, beef, bacon and various types of salad dressings.
- We have found that locally produced foods have a longer shelf life, taste better, and are very price competitive.

Use of Biomass Technologies at the UM-Missoula Campus

- In 2007 Facilities Services and the School of Forestry conducted a study to determine the feasibility of using wood products from our Lubrecht Experimental Forest as fuel for wood fired boiler on the Missoula Campus. The boiler would be

installed to replace/augment our current boilers fired by natural gas.

- Due to the cyclic nature of demand for steam on campus two boiler sizes were evaluated, a 30,000 lb/hour unit and a 3200 lb/hour unit.
- After an extensive analysis we concluded that:
    - Neither boiler had a good economic payback. The larger boiler would take 29 years to reach payback and the smaller boiler would take 47 years.
    - We also determined that Lubrecht Forest could not, in perpetuity, provide sufficient fuel for our needs.
    - Lastly, we factored in the rising cost of fuel that would be required to haul fuel to Missoula and determined that this further exacerbated the payback periods for both boilers.
    - We concluded that the environmental impact of having a wood fired heat plant on the Missoula campus was very problematic in terms of both obtaining the required permits from DEQ and in terms of the public relations problems that would arise from the citizens of Missoula.
- Due to the above problems and issues the project was determined to be unworkable at the present time.

I hope this will address any questions the EQC may have. I'm available for questions at any time.

The University of Montana

Dining Services
Lommasson Center
The University of Montana
Missoula, Montana 59812-1944
Phone: (406) 243-6325
FAX: (406) 243-4241
Web: www.umt.edu/uds

September 4, 2008

Mr. Mick Robinson,

Per your request for information on the UM Farm to College Program, please find enclosed materials for the Tuesday, September 9, 2008, Environment Quality Council Committee's meeting. The last two pages of this handout are our recommendations for a technology based local foods tracking system. This format can be used by all campuses / institutions and then uploaded to a central data base in Helena.

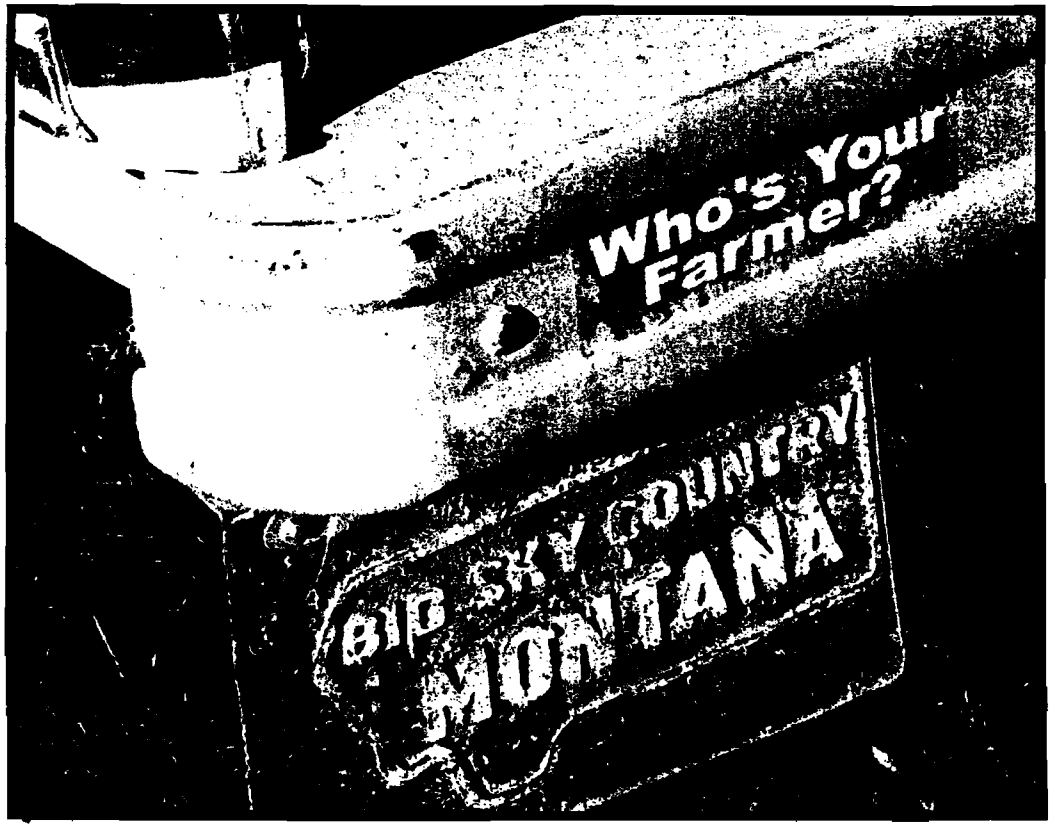
University Dining Services is entirely committed to purchasing local foods and values the social / cultural, environmental, and economic advantage that buying from local producers, ranchers and farmers provides. I hope the enclosed information will be valuable in your discussions. I would be happy to discuss the UM Farm to College Program further should the committee be interested; I can be reached via 406-243-4716. Thank you for supporting local foods.

Kind regards,

Mark S. LoParco
Director
University Dining Services
The University of Montana

B-32

Tracking Local Food Purchases: "No Farmer Left Behind"



PARTNERING WITH MONTANA FOOD PRODUCERS
UM FARM TO COLLEGE PROGRAM

Mark S. LoParco

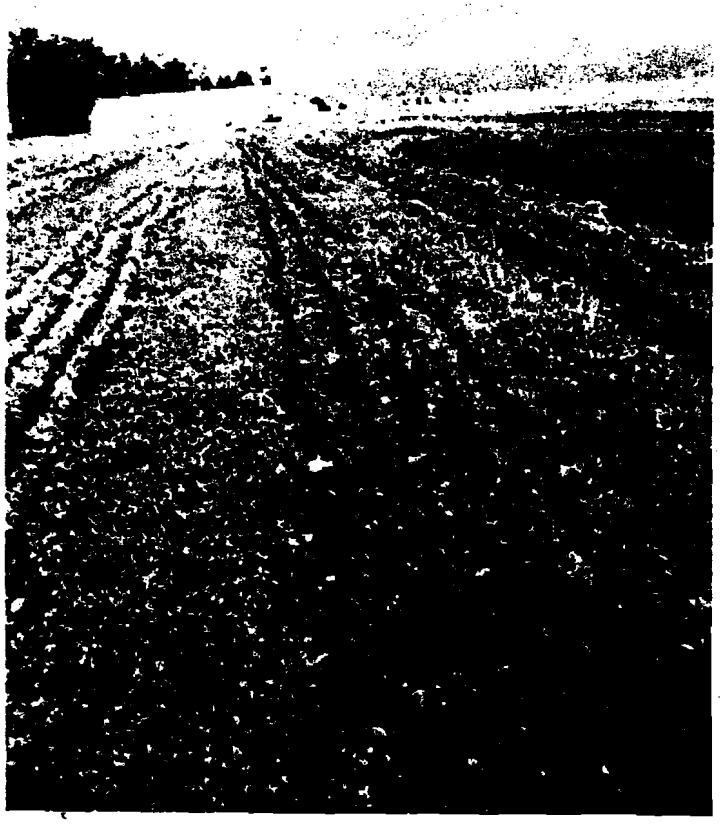
September 9, 2008

THE UNIVERSITY OF MONTANA DINING SERVICES

Mission

The UM Farm to College Program supports agriculture and economic development statewide by purchasing Montana food products to serve in our dining venues. We educate the campus community and others about Montana food and agriculture, thereby strengthening connections between the urban and rural areas of our state. We seek to reduce our environmental impacts by shortening the physical distance that our food travels.

Montana produced means...



Montana-produced foods include those that meet **one or more** of the following criteria:

1) raised, grown, or wild harvested in Montana or unique to the state

and/or

2) processed or manufactured by a Montana-owned business

and/or

3) processed or manufactured by any business that primarily uses raw materials from Montana.

Active Montana Vendors Include:

- Amaltheia Dairy
- Bagels on Broadway
- Bausch Potato
- Big Dipper Ice Cream
- Big Sky Tea/Spearmint Springs
- Brentari Foods
- Chuck and James Granola
- Country Pasta
- Cream of the West
- Daily's Meat
- Dixon Melons
- Farm to Market Pork
- Forbidden Fruit Orchard
- Front Street Pasta
- Garden City Fungi Mushrooms
- Grandma Hoots
- Helen's Candies
- Hi Country Snack
- Home Acres Orchard
- Huckleberry People
- Larry Evans Mushrooms
- Lavender Lori
- Lifeline Farms
- Meadow Gold
- Montana Jerky Company
- Mountain View Orchard
- Natural Tomatoes
- Pasta Montana
- Prairie Sunshine Honey
- Redneck Sausage/Stampede Packing
- Rocky Mountain Gourmet Steaks
- Robbins Family Orchard
- Superior Meats
- The Orchard at Flathead
- The Sweet Palace
- Totally Organic Tofu
- Vicki's Montana Mtn Classics
- Wee Sprouts
- Western Montana Growers Co-op
- West Fork Creation/The King's Cupboard
- Wheat Montana

Annual UM Farm to College (FTC) Spending

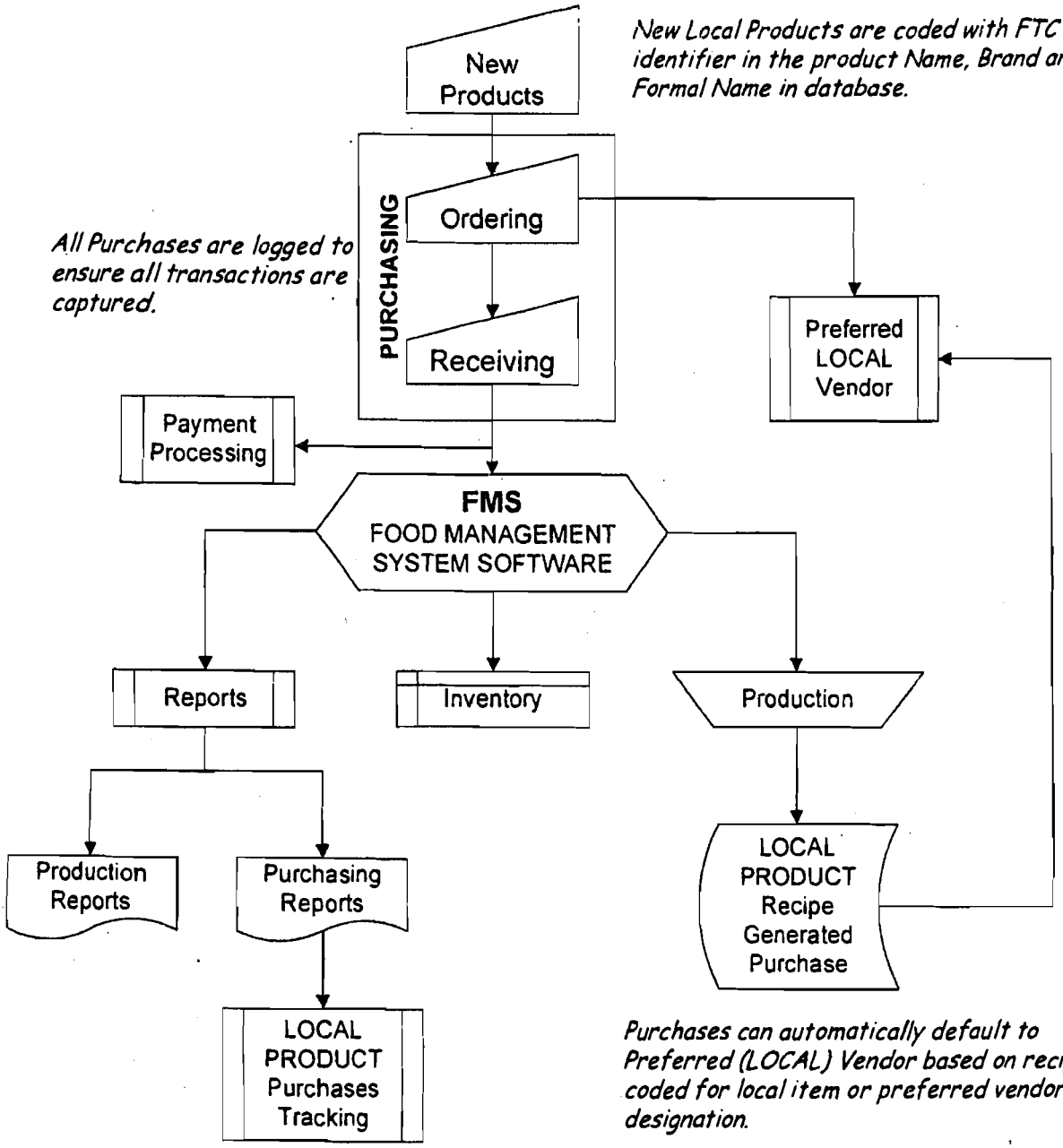
	FY03	FY04	FY05	FY06	FY07	FY08
Gross Revenue	8,193,211	8,537,426	8,873,461	9,240,899	9,768,296	10,136,307
Total Food Purchases	2,905,642	2,972,659	3,115,280	3,131,185	3,254,578	3,537,041
FTC Purchases	230,169	260,872	403,850	476,519	486,585	702,400
Food Cost as a % of Gross Revenue	35.5%	34.8%	35.1%	33.9%	33.3%	34.9%
FTC Purchases as a % of Total Purchases	7.9%	8.8%	13.0%	15.2%	15.0%	19.9%
% Local	65.0%	69.0%	80.0%	86.1%	86.6%	76.3%*
# of FTC vendors		14	41	46	40	51

***Drop due to inability to purchase Montana beef – had to outsource beef from Oregon**

How we track local food purchasing

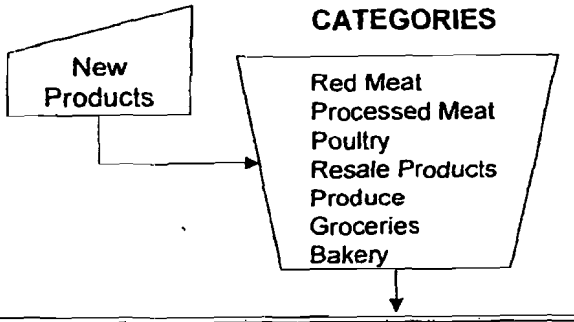
- Via our Food Management System: "CBORD"
- Our CBORD system is set to order food from preferred (local) vendors first.
- CBORD tracks local food that has been ordered, and received. To ensure proper tracking, payments from our accounting system "Banner" cannot be made unless the product is received properly.

Using a Food Service Management Software to Track Local Product Purchases



All Local Product purchases can be quickly queried to generate statistics and reports. Reports can be exported into text or spreadsheet files and transmitted to data warehouse.

Tracking Local Purchases Manually



1. *Create simple database with fields illustrated below*

2. *Local Products are coded and categorized as they are entered in log (spreadsheet)*

	A	B	C	D	E	F	G	H	I
1	Vendor	Product	Product Group	Unit	Pack Size	Price	Total Cases Purchased	Total Units Purchased	Total Dollars Purchased
2	Totally Organic	Tofu	Meat Alternatives	Pounds	10	$35.00	35	350	$1,225.00
3	Stampede Meats	Skinless Wiener	Processed Meats	Pounds	10	$15.00	225	2250	$3,375.00
4	Home Acres	Apple Pink Lady	Produce	Pounds	40	$52.00	20	800	$1,040.00
5	Home Acres	Apple Macintosh	Produce	Pounds	40	$48.00	30	1200	$1,440.00
6	Home Acres	Apple Sweet 16	Produce	Pounds	40	$55.00	25	1000	$1,375.00
7	Home Acres	Apple Fuji	Produce	Pounds	40	$53.00	15	600	$795.00
8	Home Acres	Apple Liberty	Produce	Pounds	40	$50.00	30	1200	$1,500.00
9	Rocky Mountain Gourmet Steaks	Hamburger Patty 80/20 4X1	Red Meat	Pounds	10	$14.75	542	5420	$7,994.50
10	Dailys	Bacon 18/20	Processed Meats	Pounds	10	$17.52	713	7130	$12,491.76
11	Dailys	Rib Rack Baby Sauced Cooked	Processed Meats	Pounds	5	$15.85	347	1735	$5,499.95
12	Hi Country Snacks	Beef Jerky	Retail Items	Ounces	3.5	$3.75	385	1347.5	$1,443.75
13	US Omega 3 Foods	Cucumber English	Produce	Pounds	20	$27.50	20	400	$550.00
14	US Omega 3 Foods	Tomato Beefsteak	Produce	Pounds	20	$24.35	45	900	$1,095.75
15	Grandma Hoot	Jalapeño Jelly	Retail Items	Ounces	6	$3.75	50	300	$187.50
16	Wheat Montana	Bun Hotdog	Bakery	Each	6	$0.87	3783	22698	$3,291.21
17	Wheat Montana	Bun Hamburger	Bakery	Each	6	$0.85	5284	31704	$4,491.40
18	Wheat Montana	Bread Toast	Bakery	Each	1	$1.21	632	632	$764.72
19	Dixon Melons	Melon Cantalope	Produce	Pounds	800	$1.34	7	5600	$7,504.00
20	Dixon Melons	Melon Sinful	Produce	Pounds	800	$1.42	4	3200	$4,544.00
21	Western Montana Growers	Carrot	Produce	Pounds	40	$1.02	125	5000	$5,100.00
22	Western Montana Growers	Tomato Cherry	Produce	Pounds	1	$1.54	328	328	$505.12
23	Western Montana Growers	Tomato Slicer	Produce	Pounds	40	$1.32	232	9280	$12,249.60
24	La Cense Beef	Steakburger Patty	Red Meat	Pounds	10	$1.65	30	300	$495.00
25	Bausch Potatoes	Potato Baker	Produce	Pounds	10	$0.75	1025	10250	$7,687.50
26	Bausch Potatoes	Potato Diced Cooked	Produce	Pounds	10	$1.25	578	5780	$7,225.00
27	Bausch Potatoes	Potato Hashbrown Cooked	Produce	Pounds	10	$1.32	970	9700	$12,804.00
28	Bausch Potatoes	Potato Red #2	Produce	Pounds	10	$0.99	562	5620	$5,563.80
29	Bausch Potatoes	Potato Fingerling	Produce	Pounds	10	$1.84	230	2300	$4,232.00
30	SYSCO	Oil Safflower	Groceries	Gallon	5	$48.00	270	1350	$12,960.00

3. *Log all Local Products transactions*

Every individual transaction is logged into spreadsheet, at the end of the period data is filtered and or sorted as appropriate and then consolidated to generate a simple report that is then uploaded or transmitted to entity gathering the data.

4. *Sort, filter and consolidate data as needed. Transmit standardized report to data warehouse*

Climate Change Links

As the Environmental Quality Council conducts its interim study of issues related to climate change, the links provided below are intended to give council members and the public more information on various aspects of the issue. The list is not comprehensive. It will be periodically updated throughout the interim. To suggest additional links, email: jkolman@mt.gov

Source	Description	Link	Source note
American Association for the Advancement of Science	Policy statement and background information	www.aaas.org/news/press_room/climate_change/	Non-profit organization dedicated to advancing science around the world. Publishes the journal Science.
American Association of Petroleum Geologists	Policy statement	www.aapg.org/proposed_climate.cfm	Purpose is to foster scientific research, advance the science of geology, promote technology and inspire high professional conduct.
American Meteorological Society	Policy statement	www.ametsoc.org/POLICY/2007climatechange.html	Promotes development and dissemination of information and education on atmospheric and related oceanic and hydrologic sciences and the advancement of their professional applications.
American Petroleum Institute	General climate change information	www.api.org/ehs/climate/index.cfm	National trade association that represents all aspects of America's oil and natural gas industry.
Cato Institute	General climate change information	www.cato.org/research/nat-studies/global-warming.html	Non-profit, public policy organization. Environment and climate studies program promotes policies that would help protect the environment without sacrificing economic liberty, goals that are mutually supporting, not mutually exclusive.

Climate Change Links			
Center for Climate Change Strategies	Links to state-specific plans	www.climatestrategies.us/	Consultant to Montana. Helps develop statewide climate action plans with comprehensive policy solutions, broad bipartisan stakeholder support, and successful implementation
Center for Sun-Climate Research	Climate change information related to cosmic rays and cloud cover	http://www.dsri.dk/sun-climate/index.html	Examines link between Earth's climate and solar activity through effects of cosmic rays on Earth's cloud cover. Associated with Danish National Space Center.
Department of Energy	General climate change information	http://www.energy.gov/sciencetech/climatechange.htm	
George C. Marshall Institute	General climate change information	www.marshall.org/subcategory.php?id=9	Established in 1984 as a nonprofit corporation to conduct technical assessments of scientific issues with an impact on public policy. Provides a critical examination of the scientific basis for global climate change policy.
Heartland Institute	General climate change information	www.globalwarmingheartland.org	Non-profit, not affiliated with any political party, business, or foundation. Mission to discover and promote free-market solutions to social and economic problems, including. e parental choice in education, market-based approaches to environmental protection, privatization of public services, and deregulation in areas where property rights and markets do a better job than government bureaucracies.

Climate Change Links			
Intergovernmental Panel on Climate Change	Assess scientific, technical and socio-economic information relevant to understanding the scientific basis of risk of human-induced climate change, its potential impacts and options for adaptation and mitigation.	www.ipcc.ch/index.html	Established in 1988 by the World Meteorological Organization (WMO) and the United Nations Environment Programme (UNEP).
Montana Climate Change Advisory Committee	Established to recommend specific actions to reduce or sequester greenhouse gas emissions	www.mtclimatechange.us	Appointed by Gov. Schweitzer in 2006.
Montana Climate Office	Montana climate/weather data	http://climate.ntsg.umt.edu/index.html	Current conditions and historical data.
National Oceanic & Atmospheric Administration (Climate Program Office)	General climate information	http://www.noaa.gov/climate.html	Incorporates the Office of Global Programs, the Arctic Research Office, the Climate Observations and Services Program, and coordinates climate activities across NOAA.
Numerical Terradynamic Simulation Group	Studies of forest and natural plant communities	www.ntsg.umt.edu	Based at UM College of Forestry. Director Steve Running. Projects include all scales of ecological study: from a single acre to the entire globe.
Pew Center on Global Climate Change	General climate change information	www.pewclimate.org	The Pew Center on Global Climate Change was established in 1998 as a non-profit, non-partisan and independent organization. Mission to provide credible information, straight answers, and innovative solutions in the effort to address global climate change.
Tropical Meteorology Project	Hurricane information related to climate change	http://typhoon.atmos.colostate.edu/	Headed by Colorado State University's Dr. William Gray whose work focuses on meso-scale tropical weather phenomena.
U.S. Environmental Protection Agency	General climate change information	www.epa.gov/climatechange/	

Climate Change Links			
U.S. Conference of Mayors Climate Protection Center	Climate change information for cities	www.usmayors.org/climateprotection	Formed to provide mayors guidance and assistance to reduce the greenhouse gas emissions.
World Bank	General climate change information	http://go.worldbank.org/W13H8ZXSD1	The World Bank has 185 member countries. Helps developing countries reduce poverty by providing money and technical expertise.
Yale Center for the Study of Globalization	Various presentations from 2005 conference on economics of climate change	http://www.ycsg.yale.edu/climate/index.html	Established to enrich the debate about globalization on campus and to promote the flow of ideas between Yale and the policy world.
Global Climate Change and U.S. Law	Roundup of laws by the American Bar Association	http://www.abanet.org/abapubs/globalclimate/	Provides law school accreditation, continuing legal education, information about the law, programs to assist lawyers and judges in their work, and initiatives to improve the legal system for the public.
U.S. Global Change Research Program	General climate change information	http://www.usgcrp.gov/usgcrp/default.php	Supports research on interactions of natural and human-induced changes in the global environment and implications for society. Began as a presidential initiative in 1989 and was codified by Congress in 1990. Mandates development of a coordinated interagency research program.
U.S. Government Accountability Office	Study of federal agency response to climate change and effects on land and water resources	http://www.gao.gov/new.items/d07863.pdf	Known as "the investigative arm of Congress" and "the congressional watchdog." Work includes oversight of federal programs; insight into ways to make government more efficient, effective, ethical and equitable; and foresight of long-term trends and challenges.

Climate Change Links			
NASA Goddard Institute for Space Studies	General climate change information	http://www.giss.nasa.gov/	Laboratory of the Earth Sciences Division of NASA's Goddard Space Flight Center and a unit of the Columbia University Earth Institute. Emphasizes a broad study of global climate change.
Science and Public Policy Institute	General climate change information	http://scienceandpublicpolicy.org/	Provides information on the climate change policy debate. Provided state reports outlining climate observations, climate mitigation, costs of federal mitigation measures, and lists of state scientists who believe humans are not contributing to climate change.

Climate and Carbon Related Activities in Region					
State	**Renewable Portfolio Standard**	**Emissions reduction proposals**	**Climate Change advisory committee**	**CO2 sequestration (geological) oversight**	**Terrestrial sequestration board**
MT	15% by 2015 20% by 2020 25% by 2025 (recommendation by MCCAC)	1990 levels by 2020 Additional 80% reduction by 2050 (recommendation by MCCAC)	Climate Change Advisory Council developed strategies to reduce and sequester GHGs promote economic growth and develop action plan	ETIC study, findings, pore space ownership proposals University-level activities	University-level activities
WY	None	None	State agency conducting an inventory of GHG sources to establish emissions baseline	Legislation (HB 89 and HB 90) approved in 2008. Department of Environmental Quality Oversight. Task force formed.	Carbon Sequestration Advisory Committee approved through legislation
WA	15% by 2020 for those serving more than 25,000 customers	1990 levels by 2020; 25% below 1990 levels by 2035; 50% below 1990 levels by 2050	Washington Climate Change Challenge developing strategies for achieving climate goals Climate Advisory Team developing recommendations	Approved SB 6001 requiring the Washington Department of Ecology to engage in rulemaking for regulation of sequestration (liability, property rights not addressed in legislation)	Conservation Innovation grants; university activities
CO	20% by 2020, with 4% from solar for investor owned utilities 10% for cooperatives and municipal utilities Increase to 30% for investor-owned utilities and 15% for cooperatives and municipal utilities, with no more than 85% from wind power (recommendation of CAP)	20% by 2020 Additional 80% reduction by 2050 Both compared to 2005 levels	Climate Action Panel (public & private) 70 recommendations completed 11/07	Work with neighboring states on regional approach to transportation and sequestration (recommendation by CAP)	Legislature commissioned University of Colorado, Colorado State University and Colorado School of Mines to research geological and terrestrial opportunities
ID	None	None	Climate Action Plan (in progress)	None	Carbon Sequestration Advisory Committee created by legislation in 2002
NM	20% by 2020	2000 levels by 2012; 10% below 2000 levels by 2020; 75% below 2000 levels by 2050	Climate Change Action Plan and Climate Change Advisory Group. Advisory Group recommending greenhouse gas emission reduction actions.	Oil Conservation Division (recommendation) Recommended regulations pending, expected to be issue during 2008 legislative session.	University-level activities

Source: Pew Center on Global Climate Change, March 2008
http://www.pewclimate.org/what_s_being_done/in_the_states/state_action_maps.cfm

ENVIRONMENTAL QUALITY COUNCIL

Appendix E

PO BOX 201704
HELENA, MONTANA 59620-1704
(406) 444-3742

January 11, 2008

To: Environmental Quality Council
Fr: Sonja Nowakowski, staff
Re: Board of Environmental Review hearing on carbon dioxide controls

This memo is intended to update the Environmental Quality Council on a matter before the Montana Board of Environmental Review (BER) that relates to climate change, greenhouse gases, and the potential regulation of those emissions. The BER is considering an appeal of an air-quality permit issued for a proposed coal-fired power plant based in part on whether carbon dioxide emissions should be treated as a regulated air pollutant.

The Department of Environmental Quality (DEQ) in May issued an air-quality permit to developer Southern Montana Electric (SME) Generation & Transmission Cooperative for the proposed Highwood Generating Station east of Great Falls. SME intends to operate a 250-megawatt coal-fired power plant. The plant would produce electricity for five cooperatives and serve about 60,000 Montana customers and some in Wyoming. The Montana Environmental Information Center (MEIC) and the Great Falls-based Citizens for Clean Energy appealed the permit. Burning coal to produce electricity produces carbon dioxide, which contributes to climate change, according to those appealing the permit. The Highwood plant would emit about 2.8 million tons of carbon dioxide on an annual basis, according to a joint state/ federal analysis of the project. The petitioners asked that the decision to issue the permit be reversed based, in part, on the argument that the state should have considered CO_2 emissions under its Best Available Control Technology (BACT) analysis for the project.

Based on the appeal, on December 21, 2007, the BER heard arguments for summary judgement in the case. On Jan. 11, 2008 the BER granted both the DEQ and SME's request for summary judgement, in effect denying the petitioner's request for CO_2 regulation under BACT. A full hearing on the issue of an analysis for particulate matter that is equal to or less than 2.5 microns is pending, and this brief summary focuses only on the CO_2 discussion before the BER. That hearing is scheduled to commence on Jan. 22 and be completed by Jan. 25.

MEIC and Citizens for Clean Energy argue that the state did not require Highwood to use BACT to limit carbon dioxide emissions and particulate matter that is equal to or less than 2.5 microns in diameter. It is the first case in Montana to challenge an air-quality permit based on failure to regulate carbon dioxide emissions under the Clean Air Act of Montana. The MEIC argued that a

1990 Congressional mandate that requires utilities to track carbon dioxide emissions and the April 2007 Massachusetts vs. EPA decision, a case involving automobiles and CO_2 emissions, requires the state to regulate carbon dioxide. The Supreme Court majority report noted, "greenhouse gases fit well within the Clean Air Act's capacious definition of air pollutant." An attorney for the petitioners in the Montana case argued that carbon dioxide must be regulated under the BACT process, and that the BER has an opportunity "to set a national example that would engender change."

Attorneys for the DEQ and Highwood Generating Station argued that carbon dioxide is not a regulated pollutant subject to BACT. In Massachusetts vs. EPA, which involved regulation of CO_2 emitted from motor vehicles, the Supreme Court found that there is authority to regulate CO_2, but the case neither set a standard for CO_2 nor required an analysis for CO_2 under BACT. The DEQ argued that the department is not authorized by law to make a BACT determination for greenhouse gases, like carbon dioxide, because those emissions are not subject to regulation under the Federal Clean Air Act or the Clean Air Act of Montana. While CO_2 is a pollutant, it is not a regulated pollutant, and required monitoring of a pollutant does not amount to limitation of that pollutant, according to the agency.

Both sides agreed that no other state currently regulates carbon dioxide through air-quality permits. Although in October 2007, based on a Kansas statute, the Kansas Department of Health and Environment was the first government agency to cite carbon dioxide emissions as the reason for rejecting an air quality permit for a proposed coal-fired electricity generating plant in Kansas. That permitting decision also is expected to be challenged in the courts.

In addition to granting summary judgement to DEQ and SME on Jan. 11, the BER also requested Tim Gregori with SME submit an affidavit to the BER as to how carbon controls will be used at Highwood Generating Station. Several BER members also discussed the potential for BER-initiated rulemaking on CO_2 regulations in the future. The BER's next meeting is January 22, and I will, at the council's next meeting, provide any updates.

Sonja Nowakowski
Research Analyst
Montana Legislative Services Division
Room 171E, State Capitol
PO Box 201704
Helena, MT 59620-1704

Phone: (406) 444-3078
Fax: (406) 444-3971
Email: snowakowski@mt.gov

2007 CO_2-related legislation

HB 3 "Jobs and Energy Development Incentives Act"// Approved Special Session// Rep. Llew Jones.

Provides permanent property tax rate reductions from 12 percent to 3 percent of market value for new investments in transmission lines for "clean" electricity, "clean" liquid and carbon sequestration pipelines. Property taxes on new generation technology with sequestration goes from 6 percent to 3 percent. New DC converter stations serving two regional power grids go from 6 percent to 2.25 percent. Nonpermanent incentives from 3 percent to 1.5 percent are available for new investments in biodiesel, biomass and other defined technologies.

HB 25 Revise Electric Industry Restructuring laws// Approved Regular Session// Rep. Alan Olson

The "Electric Utility Industry Generation Reintegration Act" includes a carbon sequestration component. Until the state or federal government has adopted uniform, applicable standards for the capture and sequestration of carbon dioxide, HB 25 prohibits the PSC from approving electric generating units primarily fueled by coal unless a minimum of 50 percent of the CO_2 produced by the facility is captured and sequestered. Natural gas plants also must include cost-effective carbon offsets.

The bill applies only to electric generating units constructed after January 1, 2007. Montana joins California, Oregon, and Washington as states that have adopted a CO_2 emissions performance standard for electric generating units.

HB 715 Clean coal and renewable research grant money//Approved Regular Session// Rep. Alan Olson

Requires that 30 percent of the Research and Commercialization Expendable Trust be used for clean coal and renewable energy research and development.

SB 449 Fuel efficiency standards for certain state-owned vehicles.// Approved Regular Session//Sen. Kim Gillan

Requires fuel efficiency standards for certain state-owned vehicles. Requires state agencies to develop a plan for reducing fuel and travel.

HB 24 Revise laws related to carbon dioxide for energy purposes//VOID//Rep. Harry Klock

Provides common carrier status to pipelines carrying carbon dioxide that is transported for permanent sequestration in a geological formation.

This bill, however, was contingent upon the passage and approval of SB 218, which authorized the Board of Environmental Review to adopt rules establishing a carbon sequestration program and permit system. SB 218 was tabled, so HB 24 is void.

HB 55 Carbon sequestration -- ecosystem services leasing and licensing. //Tabled by House Natural Resources//Rep. Kevin Furey

Authorized the Department of Natural Resources and Conservation to lease or license state trust lands for carbon sequestration or other ecosystem services such as open space or

biodiversity. The board of land commissioners was charged with promulgating rules for this program.

HB 227 Create carbon sequestration loan program. //Tabled by House Appropriations//Rep. Ron Erickson

Established a carbon sequestration revolving loan account administered by the DNRC. Funded by interest income off a portion of the interest on coal severance taxes. Funds from the loan account would be used to provide loans to individuals, small businesses, units of local government, units of the university system, and nonprofit organizations for the purpose of terrestrial carbon sequestration. The amount of a loan could not exceed $50,000, and the loan must be repaid within 10 years

HB 282 Sequestration to slow global warming. //Tabled by House Natural Resources//Rep. Ron Erickson

Required all coal-fired electrical generation facilities or synthetic fuel facilities that file construction permits with the DEQ to capture CO_2 at the site and permanently store it in a geological formation or provide verification that 100 percent of the carbon emissions would be offset.

HB 753 Montana global warming solutions act. //Tabled by House Natural Resources//Rep. Betsy Hands

Required the DEQ to develop and the Board of Environmental Review to adopt a global warming program for the State of Montana that included identification of historical and current sources of greenhouse gas emissions. A plan also would have been developed to reduce emissions to 1990 levels.

Modeled after legislation in California, it also would have allowed the BER to adopt a schedule of fees that would be paid by greenhouse gas emission sources.

HB 828 Study carbon sequestration. //Died in process// Rep. Alan Olson

Outlined a study of carbon sequestration issues in Montana and required the Energy and Telecommunications Interim Committee to complete such a study.

HJ 60 Study climate change. //Tabled by Federal Relations, Energy and Telecommunications// Rep. Sue Dickenson

Required a study that would review existing federal and state regulations related to greenhouse gas emissions, energy efficiency, renewable energy, and tax incentives. Included review and analysis of findings by Governor's Climate Change Advisory Council.

SB 105 Tax break for equipment to sequester carbon. //Tabled House Taxation// Sen. Greg Lind

Placed equipment specifically used for carbon sequestration in class 5 (3 percent) and made such property exempt from taxation for three years after it becomes operational.

SB 218 Sequestration standards for carbon dioxide. //Tabled by House Natural Resources// Sen. Greg Lind

Required the state to develop a new program to monitor underground injection of carbon dioxide. The Board of Environmental Review would be charged with adopting rules to administer the program. It also created a special revenue fund with fees and penalties to support the program.

SJ 20 Carbon reduction timeline. //Tabled in House Natural Resources// Sen. Mike Cooney

Urged Congress to enact a mandatory and science-and-market based limit on overall limits of greenhouse gas emissions and to provide incentives for development of energy efficiency and renewable energy programs.

LC 1469 Carbon Dioxide as pollutant. Not introduced//Requested by Rep. Ron Erickson

Revised the definitions of "air pollutants" under the Clean Air Act of Montana to include CO_2. Required the BER to establish CO_2 emission levels.

There were multiple additional bills considered that examined fuel efficiency standards, building efficiency requirements, overall energy efficiency and auditing, renewable energy, and energy conservation related to climate change. The bills listed here focus specifically on carbon sequestration and greenhouse gas regulatory issues.

Montana Climate Change Advisory Committee

The Center for Climate Strategies
March 11, 2008

Montana Climate Change Advisory Committee

- December 13, 2005 Letter from Montana Governor Brian Schweitzer
  - Establish Montana Climate Change Advisory Committee
  - Create Science Advisory Panel
  - Produce State Climate Mitigation Action Plan
    - State level GHG reduction opportunities in various sectors, taking into consideration opportunities to save money, conserver energy and bolster the Montana economy
    - Montana greenhouse gas emissions inventory and forecasts

CCAC Process

- Deliberative Democracy
  - Stepwise
  - Fact based
  - Consensus driven
  - Self determined
  - Informal
  - Nonbinding
  - Transparent
  - Inclusive
  - Flexible

Ten Step Work Plan

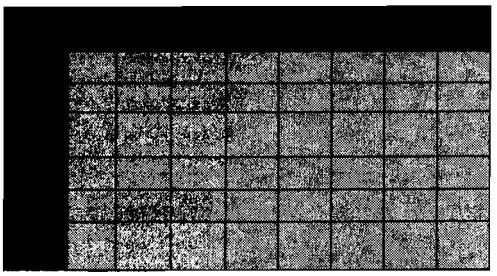
1. Develop initial Montana GHG inventories and forecasts
   - for review and revision by CCAC, by vote
2. Identify full range of possible GHG mitigation options for Montana
   - combination of 251 existing state actions across the US and Montana, plus new Montana actions identified by the CCAC, 300+ total, by vote
3. Identify 65 initial priorities for evaluation
   - by CCAC vote
4. Evaluate supply potential, cost effectiveness, ancillary and feasibility issues as needed
   - for CCAC review and approval, with modifications based on CCAC request as needed, final approval by vote
5. Identify barriers, alternative policy design needs
   - by CCAC vote

Ten Step Work Plan

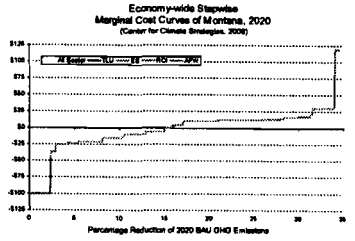
6. Identify barriers, alternative policy design needs
   - (by CCAC vote)
7. Modify, add or subtract Montana options as needed
   - (by CCAC vote)
8. Evaluate cumulative results of Montana options
   - (for CCAC review and approval, with modifications based on CCAC request as needed)
9. Iterate to consensus
   - (by CCAC vote, 54 Montana recommendations approved)
10. Aggregate 54 Montana options into implementation scenarios
    - (for CCAC review and approval, with modifications based on CCAC request as needed)

Completion: Finalize report language
- (for CCAC review and approval, with modifications based on CCAC input)

Implementation Mechanisms



Montana



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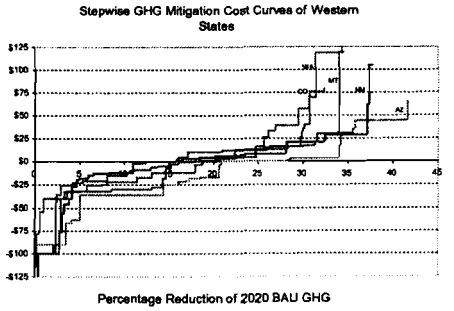

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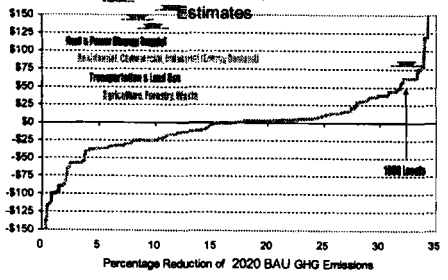

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State GHG Abatement Supply Curves ($/Ton GHG Removed)

- States with facilitated, comprehensive GHG plans
- Actions with $/ton for all sectors (excludes major non-quantified actions expected to yield net $ savings)
- Data is the product of custom selection, design and analysis through a facilitated stakeholder consensus processes (bottom up, transparent)
- Most recent data from plans; implementation results are included for past and some present actions
- Data reported for 2020 (with scaling as needed)
- Specific data sources, methods, assumptions in report appendices (available through CCS)

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McKinsey Global GHG Cost Curve, 2007

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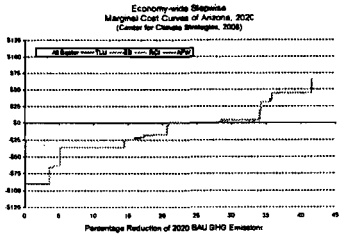
Arizona



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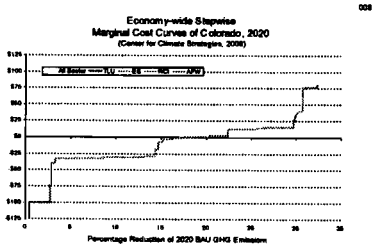
Colorado



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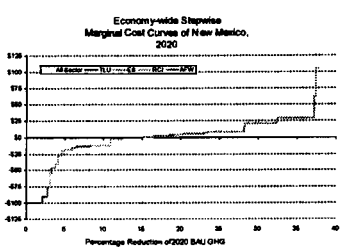
New Mexico



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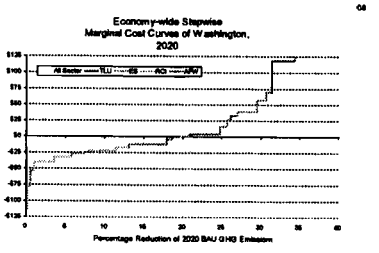
Washington



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LEGISLATIVE AUDIT DIVISION

Scott A. Seacat, Legislative Auditor
Tori Hunthausen,
Chief Deputy Legislative Auditor

Deputy Legislative Auditors:
James Gillett
Angie Grove

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February 13, 2008

Representative John Sinrud
Montana House of Representatives
284 Frontier Drive
Bozeman, MT 59718-7975

Dear Representative Sinrud:

The enclosed memorandum and attachments address the questions you recently asked concerning the Montana Climate Change Advisory Committee. The memo also summarizes the costs incurred by the committee and the funding source for those costs. If you have additional questions, please contact me at (406) 444-3122.

Sincerely,

Scott A. Seacat
Legislative Auditor

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Enc. 5

~~C~~cc w/enc: Senator Keith Bales

~~Enclosures~~

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LEGISLATIVE AUDIT DIVISION

Scott A. Seacat, Legislative Auditor
Tori Hunthausen,
Chief Deputy Legislative Auditor

Deputy Legislative Auditors:
James Gillett
Angie Grove

MEMORANDUM

TO: Scott Seacat, Legislative Auditor

FROM: Cindy Jorgenson, Audit Manager

DATE: February 13, 2008

RE: Legislative Request 08L-2654 – Montana Climate Change Advisory Committee

The Montana Climate Change Advisory Committee (committee) issued a final report in November 2007. Appendix B of that report indicates the Center for Climate Strategies (center) will work with the Department of Environmental Quality (department), providing support for the climate action planning process. We were asked to determine if this support was provided under contract with the department or another state agency and if the department or another state agency receives money from or pays money to the Center for Climate Strategies. We were also asked to determine what costs have been incurred by the Climate Change Advisory Committee and the funding source for those costs.

Department personnel provided copies of the contract with the center and two contract modifications. In the contract, the department agrees to pay the center $50,000 and the center agrees to provide approximately $320,000 in foundation funding for the development of a climate change action plan. The contract modifications extended the termination date of the contract from June 30, 2007 to December 31, 2007. Copies of the contract and the modifications are enclosed.

Department personnel also provided copies of the contractor invoice payment approval and the payment advice for the payment made to the center. The payment reflects the first half of the contract amount. The payments were charged to fund 02576 – Natural Resources Operations. According to department personnel, this fund is administered by the Department of Natural Resources and Conservation. Department personnel indicated fund 02576 revenues include resource indemnity ground water assessment tax and resource indemnity tax trust interest. The copies of the contractor invoice payment approval and the payment advice are enclosed.

Department personnel indicated committee expenses between July 1, 2006 and February 1, 2008 total $11,785. These expenses consist of meeting room rental, non-employee travel, printing, supplies and an allocation of department indirect costs. Of the total, $1,814 was paid from the department's Internal Service Fund. The remaining $9,971 was paid from petroleum violation escrow funds within the Federal Special Revenue Fund.

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LEGISLATIVE AUDIT DIVISION

Scott A. Seacat, Legislative Auditor
Tori Hunthausen,
Chief Deputy Legislative Auditor

Deputy Legislative Auditors:
James Gillett
Angie Grove

MEMORANDUM

TO: James Gillett, Deputy Legislative Auditor

FROM: Cindy Jorgenson, Audit Manager

DATE: February 29, 2008

RE: Montana Climate Change Advisory Committee Follow-Up Questions (08L-2654)

The Montana Climate Change Advisory Committee (committee) issued a final report in November 2007. Appendix B of that report indicates the Center for Climate Strategies (center) will provide support to the Department of Environmental Quality (department) for the climate action planning process.

We were asked to determine if the department used the request for proposal process prior to establishing the contract with the center and which parties were given notice of the opportunity to submit proposals. Department personnel indicated the request for proposal process was not used; the contract was made under the best source contract provisions in section 18-4-306(1), MCA. The following is selected text from the request for best source contract approval for the contract, documenting the reason for selecting the center as its contractor:

> "The Center for Climate Strategies, a policy center of Enterprising Environmental Solutions, Inc. is a non-profit corporation that has substantial foundation grant funding for this project. The total cost of this project will be approximately $370,000, and DEQ believes the Center for Climate Strategies is the only source acceptable or suitable to supply the facilitation services necessary to complete the project."
>
> "The Center for Climate Strategies approached DEQ with the offer of approximately $320,000 that it has secured from foundations to fund this project, with DEQ providing the remaining $50,000. The foundation funding will not be available if another contractor were chosen to facilitate the committee and plan."
>
> "It appears to the Department that only one source, the Center for Climate Strategies, a policy center of Enterprising Environmental Solutions, Inc., is acceptable or suitable for the service desired. No other contractor group of which the Department is aware has the funding to perform the whole project, of which the Department's contribution of $50,000 is but a small part."

We were asked to obtain a list of the individuals employed by the Center for Climate Strategies, including the names of the board members. The department provided a list of the staff, technical work group leaders and consultants obtained from the center's webpage. This list is shown on Attachment A. The department also provided a list of the board members of Enterprising Environmental Solutions, Inc., the funding foundation of the Center for Climate Strategies. This information was obtained from that entity's website. That list is at Attachment B, along with background and program information for the company.

We were asked to obtain a list of the individuals contributing to the Center for Climate Strategies. Because this organization is not a state agency, that information is not available to us. The department provided a summary of resources and benefits from the Enterprising Environmental Solutions, Inc. website. The summary is Attachment C.

We were asked to obtain a copy of the executive order or other document in which the Governor established the Climate Change Advisory Council and its responsibilities. The department provided a copy of the letter from the Governor, along with an overview of the committee, its membership, and an overview of its process. That documentation is contained in Attachment D.

We were also asked to obtain copies of any correspondence between the Governor's Office and the Center for Climate Strategies, including e-mails. Governor's Office personnel reviewed their correspondence database for any correspondence with the Center for Climate Strategies. They also requested a list of the center's employees in the event the correspondence was listed in the database under an individual's, rather than the organization's name. Governor's Office personnel indicated they were unable to locate any correspondence with the center or its employees.

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Table EX-1. Policy options recommended by the CCAC

	Policy Option		GHG Reductions ($MMtCO_2e$) Total 2007–2020	Cost Effectiveness ($/tCO_2e$)
	RESIDENTIAL, COMMERCIAL, INSTITUTIONAL, AND INDUSTRIAL			
RCII-1	Demand-Side Management Programs, Efficiency Funds and Requirements (and Financial Incentives)		6.6	–$21
RCII-2	Market Transformation and Technology Development Programs		1.9	–$23
RCII-3	State-Level Appliance Efficiency Standards and State Support for Improved Federal Standards		1.5	–$36
RCII-4	Building Energy Codes		1.6	–$10
RCII-5	"Beyond Code" Building Design Incentives and Mandatory Programs		3.4	–$5
RCII-6	Consumer Education Programs		*Not quantified*	
RCII-10	Industrial Energy Audits and Recommended Measure Implementation		3.6	–$26
RCII-11	Low-Income and Rental Housing Energy Efficiency Programs		4.7	–$9
RCII-12	State Lead by Example		2.0	–$6
RCII-13	Metering Technologies With Opportunity for Load Management and Choice		0.9	–$12
	Sector Total After Adjusting for Overlaps		**18.4**	**–$17**
	Reductions From Recent Actions			
RCII-1	Expand Energy Efficiency Funds		6.5	
RCII-11	Low-Income Energy Efficiency Programs		0.4	
	Sector Total Plus Recent Actions		**25.3**	
ES-1	Environmental Portfolio Standard (Renewables and Energy Efficiency)	Efficiency / Conservation	5.4	–$15
		Renewable Energy	5.5	$10
ES-2	Renewable Energy Incentives (Biomass, Wind, Solar, Geothermal)		*Not quantified separately (see ES-1 and ES-4)*	
ES-3	Research and Development (R&D), Including R&D for Energy Storage and Advanced Fossil Fuel Technologies		*Not quantified*	
ES-4	Incentives and Barrier Removal (Including Interconnection Rules and Net Metering Arrangements) for Combined Heat and Power (CHP) and Clean Distributed Generation (DG)	Distributed Renewables	0.8	$21
		Combined Heat and Power	5.0	$16
ES-5	Incentives for Advanced Fossil Fuel Generation and Carbon Capture and Storage (CCS), Including Combined Hydrogen and Electricity Production with Carbon Sequestration	Reference Case	4.5	$30
		High Fossil Fuel Scenario	24.4	$30
ES-6	Efficiency Improvements and Repowering of Existing Plants		*Not quantified*	
ES-7	Demand-Side Management		*Not quantified separately (see ES-1 and RCII-1)*	
ES-8/9	Market-Based Mechanisms to Establish a Price Signal for GHG Emissions (GHG Cap-and-Trade or Tax)		*Not quantified*	

ES-10	Generation Performance Standards or GHG Mitigation Requirements for New (and/or Existing) Generation Facilities, With/Without GHG Offsets		4.7	$13
ES-11	Methane and CO_2 Reduction in Oil and Gas Operations, Including Fuel Use and Emissions Reduction in Venting and Flaring	Reference Case	3.9	*Likely net benefit*
		High Fossil Fuel Case	6.6	*Likely net benefit*
ES-12	GHG Reduction in Refinery Operations, Including in Future Coal-to-Liquids Refineries	Coal-to-Liquids High Fossil Fuel Case	35	*Not estimated*
		Petroleum Refining – Reference Case	1.5	*Not estimated*
		Petroleum Refining – High Fossil Fuel Case	2.2	*Not estimated*
	Sector Total After Adjusting for Overlaps (Among ES Options and After Demand Reductions From RCI Options)	**Reference Case**	**21.9**	**$17**
		High Fossil Fuel Case	**79.4**	**$24**
	TRANSPORTATION AND LAND USE			
TLU-1	Light-Duty Vehicle Clean Car Standards		4.92	–$100
TLU-2	Fuel Efficient Replacement Tires Program		0.14	–$90
TLU-3	Consumer Information on Vehicle Miles Per Gallon		*Included in TLU-1 and TLU-2*	
TLU-4	Financial and Market Incentives for Low GHG Vehicle Ownership and Use		*Included in TLU-1*	
TLU-5	Growth and Development Bundle		0.77	<$0
TLU-6	Low-Carbon Fuels		0.39	N/A
TLU-7	Heavy-Duty Vehicle Emissions Standards and Retrofit Incentives		0.16	$79
TLU-8	Heavy-Duty Vehicle and Locomotive Idle Reduction		0.13	–$44
TLU-9	Procurement of Efficient Fleet Vehicles		*Included in TLU-1, TLU-6 through TLU-8, and TLU-11*	
TLU-10	Transportation System Management		*Not quantified*	
TLU-11	Intermodal Freight Transportation		0.59	N/A
TLU-12	Off-Road Engines and Vehicles GHG Emissions Reductions		*Not quantified*	
TLU-13	Reduced GHG Emissions From Aviation		*Not quantified*	
	Sector Total After Adjusting for Overlaps		**6.1**	**–$93**
AFW-1	Agricultural Soil Carbon Management – Conservation/No-Till		3.7	$0
	Agricultural Soil Carbon Management – Organic Farming		*Not quantified*	
AFW-2	Biodiesel Production (Incentives for Feedstocks and Production Plants)		0.9	$14
AFW-3	Ethanol Production		2.2	$4
AFW-4*	Incentives for Enhancing GHG Benefits of Conservation Provisions of Farm Bill Programs		15	$12
AFW-5	Preserve Open Space and Working Lands – Agriculture		0.12	$32
	Preserve Open Space and Working Lands – Forests		0.9	$3
AFW-7	Expanded Use of Biomass Feedstocks for Energy Use		1.1	–$23
AFW-8	Afforestation/Reforestation Programs – Restocking		3.4	$12
	Afforestation/Reforestation Programs – Urban Trees		0.04	–$3
AFW-9	Improved Management and Restoration of Existing Stands		1.3	$119
AFW-10	Expanded Use of Wood Products for Building Materials		*Not quantified*	
AFW-11	Programs to Promote Local Food and Fiber		0.12	$5

AFW-12	Enhanced Solid Waste Recovery and Recycling	3.3	$17
	Reductions From Recent Actions	**0**	**$0**
	Sector Total Plus Recent Actions	**17**	**$26**
	CROSS CUTTING ISSUES		
CC-1	GHG Inventories and Forecasts	*Not quantified*	
CC-2	State GHG Reporting	*Not quantified*	
CC-3	State GHG Registry	*Not quantified*	
CC-4	State Climate Public Education and Outreach	*Not quantified*	
CC-6	Options for State GHG Goals or Targets	*Not quantified.*	
CC-7	The State's Own GHG Emissions	*Not quantified*	

N/A = not applicable

* AFW-4 reductions were left out of the totals because they were not counted in the inventory.

20x10 Questions from Legislative Fiscal Division and Legislative Services Division
Response by Department of Environmental Quality
April 1, 2008

- **Provide a broad outline of the 20x10 project from DEQ's perspective.**
  20x10 is Governor Schweitzer's initiative to reduce energy use in state government facilities and operations by 20 % by the end of calendar year 2010. It encompasses retrofits to state buildings and other facilities, operations, purchasing and related policies, and workplace practices. There is a parallel initiative to raise the efficiency of new light vehicle purchases to 30 mpg CAFE.

- **What are the overall goals or objectives of 20x10?**
  To reduce energy use in state government facilities and operations by 20 % by the end of calendar year 2010.

- **Do they differ in any way from the Governor's original broad vision?** No

- **Who is coordinating the 20x10 initiative?**
  The primary agencies coordinating 20x10 are the Departments of Environmental Quality and Administration; Transportation is coordinating the vehicle initiative.

  DEQ responsibilities
  - Benchmarking energy use
  - Energy audits and recommendations for retrofits
  - Retrofit financing through State Buildings Energy Conservation Program
  - Technical guidance
  - Information and training

  DOA responsibilities
  - Capitol Complex operations
  - Retrofit design and construction
  - Purchasing and related policies
  - Leased buildings
  - Computer operations

  MDT responsibilities
  - Vehicle purchases and leases

  - **What authority do they have (who will have the ultimate say and authority in the course of the endeavor to ensure success)?**
    Agencies have received direction to achieve 20 % reduction by 2010. DEQ is coordinating retrofits and capital improvements to buildings and other facilities, MDT is coordinating vehicle purchase and lease, and DOA is coordinating purchasing and operational policies. Other aspects are more decentralized. For example, individual agencies determine how they will handle workplace practices for employees, such as lights and personal appliances. DEQ and DOA provide guidance in these areas.

- **What is the role and involvement of the Governor's office?**
  The Governor's Office provides goal direction. Initially, the lead agencies and the Governor's Office meet weekly to coordinate, report progress and determine next steps. The Office of Budget and Program Planning provides direction in the event agencies would disagree on specific aspects of 20x10.

- **What direction were all agencies provided to create individual plans to implement the Governor's 20x10 initiative?**
  Agencies received directions in the Executive Planning Process to submit individual agency plans. DEQ is developing a template and model plans that agencies may use as a guide.

- **Who are the agency contact personnel?**
  The department directors are the agency contacts.

- **What specifically are the objectives of 20x10 (types of energy saved, total from which the savings will be measured, etc.)?**
  The objective is to reduce energy consumption in state-owned buildings and facilities. Most of the reduction will be in electricity and natural gas. There also will be savings in fuel oil and propane, but these fuels comprise just a few % of state government energy use. Leased buildings, most of which have energy costs folded into the rental rate, are not initially included in 20x10; however, DEQ, with the support of DOA, will be investigating ways to encourage energy efficiency improvements in leased buildings. Universities were not a part of the Governor's original plan, but now are signing on to the same goal.

  2007 was initially chosen as the base year for determining energy consumption. However, it now appears DEQ may be able to obtain reliable consumption data from over a longer base period.

  - **What performance measures and milestones have been developed?**
    The initial step, still underway, is developing a management system for energy use. SABHRS is designed to manage and oversee financial transactions with energy providers, not consumption of fuel and energy. This energy database development requires collating state information on buildings and payments with utility information on meters and consumption. DEQ started with NorthWestern Energy, since it is the utility serving most state buildings. Flathead Electric Cooperative and Montana-Dakota Utilities, the other large energy providers, also have been contacted and are starting to provide information.

    DEQ is in the process of calculating an Energy Utilization Index, in Btu/ft^2, for larger state buildings served by NorthWestern. This index allows us to do a preliminary ranking of state buildings, and to compare them to the efficiency of similar buildings elsewhere. This preliminary ranking permits DEQ to identify buildings most likely to benefit from a comprehensive energy audit.

  - **All agencies are involved in the project. However, is there a difference in the involvement of larger agencies or agencies with facilities around the state in the development and implementation of the 20x10 initiative?**
    The major difference will be between agencies that own buildings and those that lease space from other state agencies, primarily Department of Administration. DEQ is working with agencies owning state buildings to develop capital improvement projects for those buildings.

- **When do the involved players meet?**
  Meetings occur as needed between DEQ, DOA and individual agencies. Thus far, Directors have been briefed on 20x10 at cabinet meetings every other week. The 20x10 website, soon to be operational, will be a major conduit for providing information. Also, DEQ has conducted one lighting workshop in Helena for state facility managers and plans another this spring in Billings, and DOA and DEQ are conducting a workshop next week in Helena for green product purchasing.

- **How are the benchmarks from which savings will be measured being determined?**
  The energy used by each of the executive branch agencies at the conclusion of 2010 will be compared to a base year of 2007. Electricity, gas, and heating fuels will be converted to Btu so the total energy usage comparison can be made.

  For larger buildings owned by the state, energy use indices will be determined at the end of 2010 based on building characteristics as well as energy use. A comparison will be made to the base year to determine the degree to which the building has become more efficient.

  - **Who will do the actual measuring from the benchmarks and how will they do it?**
    DEQ will gather gas and electric utility bill data directly from the utilities on all state accounts. This is accomplished by the utilities providing DEQ electronic data. Agencies will provide data on propane and heating oil. A database will be established including two years of historical data. The database will be updated through 2010 to track progress and develop benchmark comparisons.

  - **How will factors such as changes in weather patterns be factored in?**
    DEQ will include building and site information for each account onto the database. In this manner the utility accounts can be identified for weather-dependent loads such as building conditioning as opposed to process operations that are not weather dependent, and then weather dependency patterns in energy use can be detected. A statistical analysis then can be performed to normalize energy use to heating and cooling degree days so a direct comparison can be made for benchmarks for the 20x10 targets.

  - **How will leased facilities be integrated into individual 20x10 agency plans?**
    Agencies will receive information on how to reduce energy use in their leased buildings by employee participation and basic operational strategies. Agencies renewing leases are encouraged to include agreements to allow access to utility bill consumption reports, and to include incentives for landlords to increase efficiency of the building. Agencies initiating new leasing agreements are encouraged to include energy efficiency as criteria for selecting space. Agencies involved with" build to suit" lease agreements are encouraged to adopt high performance building standards for design and commissioning of new construction. Agencies that have access to utility bill data can provide information to DEQ's energy use database.

- **How much of the targeted savings over time will result from behavioral changes, and how much from other means?**
  DEQ estimates that capital construction improvements to state owned buildings will meet more than 10% savings, or more than half of the 20x10 goal. The remainder, up to 10%, will be from workplace practices and purchasing, building operations, and related changes.

- **How was this breakdown calculated?**
  DEQ reviewed the utility costs expenditures for the last four to six years to determine some rough estimates. DEQ also reviewed the projects from the State Building Energy Conservation Program to determine historical performance parameters. Also, review of other state programs and previous energy curtailment efforts provided some rough indication of feasible response to 20x10. This also is consistent with experience and guidance from the Department of Energy and the Environmental Protection Agency, and with industry rules-of-thumb.

- **What assumptions were made?**
  Agency employees, building operators, and administrators could reduce energy consumption by up to 10% by the end of 2010 by putting in place energy efficient practices through building operations, purchasing practices, and workplace practices.

- **Have your assumptions changed as the process has started? If so, why?**
  The assumptions were based on executive agency energy expenditures. Targets for investments may change when considering university capital improvement projects. Program design will be refined with more data available.

- **How will you determine and prioritize capital projects for consideration?**
  Recommendations for improvements will be analyzed for cost effectiveness and the ability to cash flow the investment.

  - **What standards will be used?**
    The improvements will need to provide enough energy costs savings to cover the debt service financing through the term of the financing.

  - **Who will conduct the cost/benefit analysis and how will it be constructed?**
    DEQ will determine the projects authorized for funding. Department of Administration will administer the construction project.

  - **When will funding sources be determined and by whom?**
    DEQ and OBPP will develop a request for bond financing in HB12 for the 2009 Legislature in the Executive Planning Process for the projects that have been found feasible. The 20x10 initiative also has submitted a proposal to Wal-Mart Corporation's Greening State Capitols program for additional energy audits.

- **What other measures besides capital improvements and behavioral adjustments is the state contemplating to help meet the objectives (i.e. major initiatives concerning availability of energy or its source)?**
  20x10 includes purchasing and operations and maintenance (O&M). Appliances, also known as plug load, are major consumers of energy. 20x10 includes efforts to increase the purchase of energy efficient appliances. There is a specific effort targeted at computers, possibly the largest type of plug load in state buildings. Enhanced O&M, as performed by the technical staff, will be a goal of 20x10, however, this will be emphasized in the next phase. Initially the push has to be on 1) buying more energy efficient appliances, because most of what is purchased now will still be using energy at the end of 20x10, and 2) planning for capital investments in energy efficiency, which by their very nature have a long lead time.

- **What other costs do you expect?**
  Costs of 20x10 are investment costs. The efficiency purchased now will reduce energy costs over the life of the improvement. Further, efficiency improvements provide insurance against the downside risks of unanticipated spikes in energy costs. In general, the costs will come in the early years and the savings in the later ones. 20x10 is expected to yield a net reduction in the cost of state government.

- **Will requests for capital improvements all be made through the long-range building program?**
  Financing for capital improvements will come through the State Buildings Energy Conservation Program and the Long-Range Building Program. These programs historically coordinate their efforts. The major focus of LRBP for the coming biennium will be 20x10 improvements. Some improvements may be accomplished with conservation funding from utilities in Montana.

  - **How are you deciding the cap on the amount that will be requested?**
    Projects that meet the economic tests of the State Buildings Energy Conservation Program and that are necessary to meet the reduction goals of 20x10 will be recommended for funding.

- **What resources is DEQ devoting to this project? Since the Legislature did not contemplate this project, have activities of the department been postponed or foregone to complete 20x10 related efforts? If so, what activities?**

  The capital investment activity associated with 20x10 is currently performed by DEQ's State Buildings Energy Program. The pace of these efforts will increase under 20x10. DEQ is considering either temporarily adding modified positions or redirecting positions within the department that are currently vacant due to funding constraints and supporting these positions through the State Buildings Energy Program.

  The operations activity under 20x10 currently is performed within DEQ's Energy and Pollution Prevention Bureau. Current outreach, training and technical assistance activity is consistent with the provisions of the initiative, but again the pace will increase. Current staff will meet these demands by reprioritizing work activities.

ENVIRONMENTAL QUALITY COUNCIL

Appendix K

PO BOX 201704
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Greetings,

This is to inform members of the Climate Change Advisory Committee, its technical groups and the scientific advisory panel that in January the Environmental Quality Council will be taking input and discussing the CCAC report and recommendations. The EQC wanted to make sure that all members of the CCAC and others affiliated with its work are aware of the meeting and given a chance to comment.

As part of its interim work, the EQC plans to examine the CCAC report and may suggest legislation based on the recommendations.

The report will be the topic of discussion starting on Monday, January 14 at 1:30 p.m. in room 102 of the Capitol.

The EQC is a bipartisan legislative interim committee comprised of lawmakers and public members. More information about the EQC and its work is located here: http://leg.mt.gov/css/lepo/2007_2008/default.asp. A full meeting agenda for the EQC also is available at the site.

Anyone who cannot attend the meeting may send written comments to me and I will distribute them to the EQC. Also, feel free to share this invitation with anyone else who may like to attend the meeting or submit comments.

Thanks for your time, and I look forward to hearing from you.

Sonja Nowakowski

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Combined (5 and 4) Ranking Scores for EQC and Public Responses Totaling over 50%

AFW-12	69%	Enhanced Solid Waste Recovery and Recycling
AFW-11	67%	Programs to Promote Local Food and Fiber
TLU-10	65%	Transportation System Management
RCII-2	62%	Market Transformation and Technology Development Programs
RCII-13	61%	Metering Technologies/Load Management and Choice
AFW-8	61%	Afforestation/Reforestation Programs-Restocking
CC-4	61%	State Climate Public Education and Outreach
TLU-9	61%	Procurement of Efficient Fleet Vehicles
RCII-10	60%	Industrial Energy Audits and Implementation
RCII-8	60%	Support of Renewable Energy Applications
AFW-7	60%	Expanded Use of Biomass Feedstocks for Energy Use
AFW-4	59%	Incentives for Enhancing GHG Benefits/Farm Bill Conservation
CC-7.1	58%	Target for Reducing the State's Own GHG Emissions
RCII-11	56%	Low Income and Rental Housing Energy Efficiency Program
RCII-6	56%	Consumer Education Programs
RCII-3	56%	State Level Appliance Standards/Support for Federal Standards
TLU-3	56%	Consumer Information on Vehicle Miles per Gallon
TLU-11	56%	Intermodal Freight Transportation
AFW-9	56%	Improved Management and Restoration of Existing Stands
AFW-2	55%	Biodiesel Production
ES-12	54%	GHG Reduction in Refining and Future Coal-Liquid Refining
CC-2	54%	State GHG Reporting
ES-11	53%	Methane and CO2 Reduction in Oil and Gas Operations
TLU-7	53%	Heavy Duty Veh. Emission Standards and Retrofit Incentives
RCII-12	52%	State Lead by Example
CC-7	52%	The State's Own GHG Emissions
RCII-5	51%	Building Design Incentives and Mandatory Programs
TLU-8	51%	Heavy Duty Vehicle and Locomotive Idle Reduction
AFW-5	51%	Preserve Open Space and Working Lands
ES-2	50%	Renewable Energy Incentives

ENVIRONMENTAL QUALITY COUNCIL

Appendix M

PO BOX 201704
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April 21, 2008

To: Environmental Quality Council members
Fr: Sonja Nowakowski, EQC staff
Re: 15 climate change recommendations analysis

As requested by the EQC in March, staff completed an analysis of the 15 recommendations selected by council members from the Montana Climate Change Action plan. The analysis below includes a summary of key points from the Montana Climate Change Action Plan and the associated appendices.

The legislative and administrative options were prepared by EQC staff and participating agencies. Unless noted otherwise, the Department of Environmental Quality assisted in compiling the information. The information below does not include an economic analysis of the recommendations.

By looking at the 15 recommendations, council members have noted that they are not endorsing those 15 recommendations or dismissing any of the others. Members requested the following information on the 15 recommendations:

- Conservation considerations
- What is currently being done in this area
- What potential new legislation in this area could be considered

The information below has been posted on the EQC Website at http://leg.mt.gov/eqc. EQC members were notified of the information's availability via e-mail on April 8.

AFW-11
Programs to Promote Local Food and Fiber
(75% of participating EQC members voting 4 or 5 and 59% of the public voting 4 or 5)
✔ 20% of food consumed in Montana to be grown and processed in MT by 2010; 30% by 2020.

***Note**: Much of the information below was prepared and offered by the Department of Agriculture.

Note provided by the Department of Agriculture on AFW-11:
The detailed description of AFW-11, under Policy Design, indicates that the Montana Department of Agriculture could be involved in promotion and tracking of in-state product consumption. The Department currently does not track in-state product consumption in any quantitative manner; this would require tracking in significant detail. This would be a major undertaking and if implemented would involve much more cost and effort than the ½ FTE identified as the cost of the alternative.
It is also questionable whether the grocery and food service supply chains will (or even can) provide the information needed to quantitatively track the progress of this alternative. The metrics appear to require monitoring food consumption by weight, which could be difficult to determine. This sort of market monitoring/census is not a competency of the Department and may be more appropriately handled by the University of Montana Bureau of Business and Economic Research, a trade organization, or a private contractor with experience monitoring the grocery and food service industry.
AFW-11 is very ambitious and Montana Department of Agriculture staff believe that realistically a significantly greater investment will be necessary (than the ½ FTE identified in the plan appendices) to meet the objective of doubling consumption of Montana grown, harvested, and processed food by 2020.
It also should be noted that the Made in Montana Program is managed by the Montana Department of Commerce.
While the Montana Department of Agriculture seeks to expand food production and processing in Montana, it recognizes that AFW-11 likely provides little benefit in greenhouse gas emissions reductions relative to other alternatives. Thank you for the opportunity to participate in the policy development process as it pertains to Programs to Promote Local Food and Fiber.

Conservation Considerations:
- Reduces transportation and manufacturing emissions and costs
- Pages I-66 through I-70 in Appendices

What's Being Done:
- Grow Montana program. Broad-based coalition with common goal to promote community economic development polices that support sustainable Montana-owned food production, processing, and distribution.
- Mobile Meat Slaughter bill. Passed by 2005 Montana Legislature authorizes Department of Livestock to inspect mobile meat slaughter units. A mobile poultry processing unit also has been ordered.
- Local food for government agencies. Senate Bill No. 328, approved by the 2007 Legislature, establishes an optional procurement exception applicable to the purchase of Montana-produced food products by governmental bodies.
- The Montana Department of Agriculture and the Travel Montana Program (Montana Department of Commerce) promote Farmers Markets.
- Community Gardens throughout Montana.

- Department of Agriculture Food and Agricultural Products Directory and companion references, the AgriBusiness Resource Directory and the Sheep Directory list agricultural producers and processors in the state.
- *Abundant Montana*. Directory published by AERO that includes sustainable farms, ranches, and retailers by region and by farm name.
- Department of Agriculture Montana Organic Program.
- Grow through Ag grants. Funding sunsets in 2010.
- BioProduct Innovation Centers. Funded by WIRED grant that sunsets in 2010.
- Senate Joint Resolution 13 Interim Study on the redevelopment of a Montana food processing industry.(Under the oversight of the Economic Affairs Interim Committee.)
- Farm to College Programs.
    - University of Montana Missoula Farm to College Program – purchases have reached the $2 million dollar mark.
    - University of Montana – Western (Dillon) Farm to College Program – approximately 16% of annual food budget.
- Montana State University Food Service Montana Made Program – approximately 10% of food budget on products processed in Montana, about $300,000 per year.
- Montana State University's Towne's Harvest Garden is expanding.
- Montana State University-Bozeman, University of Montana-Western at Dillon, Salish Kootenai College, and Missoula County Public Schools are working with "Food Corps" of Americorps VISTA volunteers, who will help them increase the amount of Montana-grown or processed food they serve in their cafeterias.
- A School to Farm group is organizing in the Bozeman School System.
- Sustainable Food Systems Degrees at Montana State University – a joint effort of the College of Agriculture and the College Education, Health and Human Development.
- "Made in Montana" label promoted through the Montana Department of Commerce.
- Made in Montana Show – City of Great Falls and the Montana Department of Commerce, with limited assistance by the Montana Department of Agriculture.
- Congressional appropriation requests:
    - A $3 million appropriation request for the cannery in Deer Lodge has been forwarded to the Congressional Delegation.
    - A $3.46 million appropriation request for Mission Mountain Food Enterprise Center and a similar facility in Glendive has been forwarded to the Congressional Delegation.
- DPHHS has developed an electronic benefit card (food stamp) with limited geographic usage.
- DPHHS revised its policies to allow organic food purchases for food stamp benefits.
- Food and Agriculture listserv with 400 participants has been developed.
- A group calling themselves the "Montivores" (which is interested in promoting local food for local people) has started in the Bozeman area.
- Montana Cooperative Development Center. Funding sunsets in 2010.
- While not an activity in Montana, the February 2008 recall of 143 million pounds of ground beef processed by Westland/Hallmark Meat Company in Chino, Calif. may have

implications that will encourage local beef processing and market development. Much of the beef was destined to school lunch programs and other institutional buyers, and 246 Montana schools were affected by the recall.

Potential Action:

* Legislative or EQC options (not complete, intended to be starting point for discussion):

- Encourage/require institutions that purchase large quantities of food to buy local. For example, the 2007 Legislature contemplated, House Bill No. 716, a grant program to help local schools develop relationships with local food providers. The bill died in committee.
- Incentives for enhancing the state's production, processing, storage, and distribution infrastructure.
- Establish funding sources for programs that may sunset in 2010.
- Funding to finance the statistical tracking of food consumption in Montana by weight of Montana-sourced food products and all non-Montana sourced food products, presumably by categories of product types.
- Research funding for the Montana Manufacturing Extension Center to evaluate the logistics of increased produce production (relying on research identified above) in combination with the logistics of the current food manufacturing and distribution system to provide useful information for existing and new private enterprise in the food manufacturing industry.
- Research funding for the MSU Agriculture Research Centers earmarked for:
    - vegetable and fruit variety trials and demonstrations that would provide information useful for the establishment of increased commercial produce production in Montana.
    - geospatial analysis of soil, climate, and irrigation analysis to evaluate and identify cropland resources conducive to vegetable and fruit production, as well as identification of which produce crops can likely be successfully grown in the locations identified.
- Funding to the Montana Manufacturing Extension Center to provide subsidized technical assistance to new entrants in the produce, meat processing, and food manufacturing industries to help solve logistics and labor supply challenges; to determine appropriate scales and scopes of operation; and to identify potential synergies to be exploited.
- New funding for the promotion of Montana grown, harvested, processed food – beyond the current level of funding of related existing programs.
- Tax and finance incentives sufficiently enticing to encourage the establishment of efficient large scale meat processing facilities in Montana.
- Increased funding for public institution food procurement – to offset the almost inevitable higher costs of purchasing Montana grown, harvested, processed food. This has to be accompanied by some safeguards to ensure that opportunistic businesses do not price-gouge Montana institutions and to make sure that a “new” food processing industry in Montana is not excessively nurtured so as to become competitively weak, according to the Department of Agriculture.
- Continued or increased public investment in irrigation infrastructure and advantageous

public finance for irrigation development for more productive irrigated farming, more efficient use of water, and increased acreage under irrigation.

* Resolution or recommendation stating intent
* No Action
* Administrative options:

- Encourage large purchasers, like corrections, to buy local food products.
- Expand on education and information programs that promote local food and fiber. Focus on promoting, educating, or encouraging use of "Made in Montana" products, promoted through the Department of Agriculture.

AFW-12
Enhanced Solid Waste Recovery and Recycling
(75% of participating EQC members voting 4 or 5 and 63% of the public voting 4 or 5)

✔ Increase Montana solid waste recycling rates by 17% by 2008, 22% by 2011, 25% by 2015, and 28% by 2020 using a variety of methods, including source reduction, reuse, recycling and composting.

Conservation Considerations:

- Reduces the manufacturing of products
- Reduces materials stored in landfill
- Pages I-71 through I-78 Appendices

What's Being Done:

- DEQ responsible for implementing Integrated Solid Waste Management Act, 75-10-803, MCA, which requires them to convene a group of interested parties to review and recommend goals for increasing recycling. This recommendation (AFW-12) sets higher goals. Goals would be updated in 2011, based on current law.
- State's recycling rate is now over 18%, ahead of state's 2008 goals (17% was goal). DEQ has put more resources toward recycling and is doing more with private businesses, schools, nonprofits, and state government. There has been a 2% increase in state recycling rate and community electronics recycling events, pesticide plastic recycling collections, mercury thermostat and thermometer collections, and more market development.
- DOA and DEQ are establishing a task force on recycling and purchasing in state government. In Winter 2007 DEQ hosted an educational event for all state agencies in the Capitol Rotunda.
- DEQ educates consumers on benefits and opportunities for recycling as outlined in 75-10-215, MCA.
- State government, lead by example source reduction and recycling program, as outlined in 75-10-805, MCA.
- State government, procurement of recycled supplies and materials. DOA develops specifications for purchasing materials and supplies that have recycled content, 75-10-806, MCA.
- Licensing. DEQ provides licenses for recycling and composting businesses at no cost.

- Tax credit for investment in property used to collect or process reclaimable material and for purchase of recycling equipment. Set to expire in 2011, 15-32-601, MCA.
- Recycled materials deduction. Taxpayers purchasing recycled material as a business-related expense can deduct 10% of the expense from federal adjusted gross income in arriving at Montana adjusted gross income. Set to expire in 2011, 15-32-609, MCA.
- Deduction for purchasing Montana produced organic fertilizer. Taxpayers may deduct expenditures for organic fertilizer that is produced in Montana, 15-32-303, MCA.
- Credit against air permitting fees for certain uses of post-consumer glass. Can receive credit against fees imposed in 75-2-220, MCA, for using glass in recycled material. Expires in 2009.

Potential Action:

* Legislative or EQC options (not complete, intended to be starting point for discussion):

- Provide additional resources to broaden educational outreach program through DEQ, expand upon program in 75-10-215, MCA. Lead by example. Evaluate and update state government source reduction and recycling program, 75-10-805, MCA.
- Redevelop or expand incentives for recycling. For example, the 2007 Legislature contemplated House Bill No. 607 to create the waste reduction and recycling grant act. It authorized a fee on solid waste to fund grants. Died in committee. House Bill No. 258 contemplated by the 2007 Legislature would have created a tax credit for recycling certain electronics. Died in committee.
- New legislation could assist small businesses and assist in developing local markets for recycling.
- Increase, require, and incentivize recycling of construction and demolition waste. In Western Montana and high growth areas, construction and demolition waste may account for 30% of total waste.
- Extend tax credits or programs set to expire in 2011, as noted above.
- Tax credit for investment in property used to collect or process reclaimable material and for purchase of recycling equipment is currently only in Session Law. With legislative changes, could become permanent.
- Provide for demonstration projects to encourage waste to solid energy or biogas. New legislation could offer assistance to waste to energy sewage treatment plant upgrades.

* Resolution or recommendation stating intent
* No Action
* Administrative options:

- Develop local markets for recycled materials. Investigate methods for developing markets for local uses of recycled materials.
- Encourage inter-county cooperation, using Headwaters Recycling Model. (Program utilized and paid for by collection of southwest Montana counties). Work with local governments or MACO to increase effectiveness.
- Encourage Montana landfills to participate in the EPA Methane Outreach program. When landfills come in for permitting, plan could be presented.
- Encourage composting of biosolids over landfilling.

TLU-10
Transportation System Management
(69% of participating EQC members voting 4 or 5 and 61% of the public voting 4 or 5)

✔ Promote the development of efficiencies in Montana's transportation system to achieve fuel savings and improved safety.

*** Note**: Much of the information below was prepared and offered by the Montana Department of Transportation.

Conservation Considerations:

- Reductions in transportation sector
- Pages H-44 through H-46 Appendices

What's Being Done:

- MDT, county road supervisors, and Montana transit providers evaluate current infrastructure, options and opportunities on regular basis.
- MDT, working with transit providers has expanded transit service in smaller communities from nine providers in 2005 to 36 community transit providers by 2008, a consolidated service model.
- All urban areas consider bicycle and pedestrian transportation needs in transportation plans which are funded by MDT.
- Billings, Great Falls, and Missoula use their Metropolitan Planning processes and all other urban areas use their transportation planning processes to consider allocating urban highway funds to transit or bike/pedestrian facilities (23 USC Section 134, and MCA 62-127-(3)).
- MDT allocates over $5 million annually to local and tribal governments for "transportation enhancements" through the Montana Community Transportation Enhancement Program (CTEP). This program is established via a tri-party agreement between MDT, Montana Association of Counties, and the League of Cities and Towns. In CTEP, local and tribal governments select eligible projects with this funding after engaging in a public involvement process. More than 50% (5 year average = $2,456,138) of the projects selected are for locally important bicycle and pedestrian infrastructure.
- MDT also considers bike and pedestrian infrastructure in all projects and constructs these features as appropriate. Beyond the CTEP program, MDT annually expends over $3 million on footpaths and bicycle trails (5 year average = $3,166,758). MCA 60-3-301(3) provides that MDT must let an average of $200,000 each year on footpaths and bicycle trails over a five year period. Actual expenditures exceed statute by 1583% over a five year period.
- MDT allocates approximately $2.0 million annually for locally developed urban transportation plans. These transportation plans must consider the following factors in developing plans and programs (23 USC Sections 134 and 135) as does the states long-range transportation plan. They explicitly consider bike and pedestrian needs. They are developed locally to ensure consistency with local land-use goals and local buy-in for the

adopted strategies. Note that these locally developed transportation plans must consider the following factors:

1. energy conservation
2. Support for economic vitality
3. Safety of the transportation system for motorized and non-motorized users
4. Increased security of the transportation system
5. Increased accessibility and mobility for people and freight
6. Protect and enhance the environment, promote energy conservation, improve quality of life, and promote consistency between transportation improvements and state and local planned growth and economic development patters
7. Enhance the integration and connectivity of the system across and between modes for people and freight
8. Promote efficient system management and operation
9. Emphasize the preservation of the existing transportation system.

- MDT has committed to a schedule that will update all transportation plans in Montana before 2012 with an emphasis on operations and safety. The operations element in urban transportation plans will improve traffic flow and reduce conflict points. In metropolitan areas the transportation plans will meet air quality conformity requirements for criteria pollutants.
- MDT has committed to implement congestion management plans for construction projects on all high volume corridors by 2009. These plans will implement strategies to keep traffic flowing through construction zones.
- Urban Transportation Districts receive money allocated by MDT for operating and contracting for operation of public transportation systems, 7-14-102, MCA. Urban Transportation Districts are formed pursuant to 7-14-201, MCA.
- Zoning regulations contemplate traffic congestion, pursuant to 76-2-304, MCA. Local subdivision regulations contemplate congestion pursuant to 76-3-501, MCA.
- Department of Transportation required to provide "energy-efficient and ecologically compatible transportation services with optimum efficiency, effectiveness, and economy," 2-15-2505, MCA.

Potential Action:

* <u>Legislative or EQC options</u> (not complete, intended to be starting point for discussion):

- Legislation to strengthen current access management programs.
- Legislation could review options for further expansion of transit services. This would require a new or expanded state revenue source. Transit cannot operate without subsidy, according to MDT. The only currently available state funding available for transit is approximately $250,000 annually generated via the TransAde program (MCA 7-14-112). Since 2005 MDT has been able to expand community transit services using federal funds through the 49 USC Section 5311 program.
- State and local governments ensure that all new streets are designed to provide full range of transportation options. Amend existing planning laws. This would have funding

implications for the cost of infrastructure. The current federal and state funding invested in bike and pedestrian facilities is in excess of $5.7 million annually. A mandated a design standard will increase the overall cost of infrastructure, according to MDT.

- Preserve railroad right-of-ways. The only federal funding available for this is to use CTEP funding to preserve the right-of –way for bike/ped facilities. The Moore to Lewistown line was preserved using this funding source. MDT has also acquired railroad right-of-way for future highway construction. This mechanism is only available if a highway construction project is under development and needs the right-of-way.
- Expand upon MDT purpose in 2-15,2505, MCA to include reducing vehicle miles traveled where efficient. The agency purpose statement now includes providing "energy efficient" and "ecologically compatible transportation services."
- The 2007 Legislature contemplated House Bill No. 505 to create a travel reduction task force, provide for state agencies to develop alternative commuting options for state employees, provide guidelines for reducing travel for official purposed by state agencies, and provide benchmarks for reducing travel by state employees. The bill died in committee.

* Resolution or recommendation stating intent
* No Action
* Administrative options:

- MDT evaluate and recommend roundabout installation as appropriate and evaluate no less than 15 intersections or locations annually. Evaluations are currently an on-going agency commitment. MDT encourages roundabout installation, when the installation is based on sound engineering principles. All right-angle intersections considered for new construction and any intersection being analyzed for safety are considered for this treatment.
- MDT continue commitment to multimodal transportation systems by continuing to invest in bicycle and pedestrian facilities. MDT currently spends about $5 million annually on these activities. MDT also invests about $7 million annually in 36 community transit services. The Billings, Great Falls, and Missoula transit systems receive another $3.6 million annually for metro-transit services. All urban areas may transfer highway funds to be used for either transit or bike/pedestrian facilities.
- MDT continued support of community transit systems.
- MDT will complete signal synchronization on all state managed routes in urban areas, mostly arterials, by 2009.
- MDT continues to develop access management plans
- MDT continues to convert traffic lights to LED bulbs by 2010 and works with cities to convert lights under city jurisdiction.

RCII-13
Metering Technologies w/Opportunity for Load Management and Choice
(69% of participating EQC members voting 4 or 5 and 53% of the public voting 4 or 5)

✔ Develop a pilot program for installing smart meters for residential and non residential buildings starting in 2009, targeting 10% of homes by 2011 and an additional 30% by 2020.

Conservation Considerations:
- Potential energy conservation
- Pages F-52 through F-54 Appendices

What's Being Done:
- NorthWestern Energy considered a time-of-use pilot program in Missoula. NorthWestern and the PSC spent a substantial amount of time considering the cost-effectiveness of the program, and concluded that a larger study of a system-wide application of advanced metering infrastructure and command demand response programs needs to be completed.

Potential Action:
* Legislative or EQC options (not complete, intended to be starting point for discussion):
- Set up a stakeholder, technical committee to consider the option and report back to interim committee with technical recommendations, including how to move forward with a pilot program.
- Require PSC and NWE participate in development of such a pilot program.
- Set target for participation of pilot, for example 45,000 homes by 2011.
- Under existing energy portfolio contracts, contracts are not structured for time-of-use.
- Eventually would need to accommodate different electricity tariff structure, including time-of-use rates.
- Encourage utilities to invest in new metering technologies.

* Resolution or recommendation stating intent
* No Action

RCII-2
Market Transformation and Technology Development and Programs
(62% of participating EQC members voting 4 or 5 and 61% of the public voting 4 or 5)

✔ By 2009 put in place mechanisms to allow broader coverage of market transformation efforts to all geographical areas.

Conservation Considerations:
- Potential energy conservation
- Pages F-10 through F-14 Appendices

What's Being Done:
- DEQ uses funds from Northwest Energy Efficiency Alliance (NEEA) to provide energy efficiency programs in western Montana. As funds allow, services are extended to eastern Montana. Activities focus on building technologies. NorthWestern, BPA, and electric cooperatives in the BPA service area are partners in NEEA.
- Existing Universal System Benefits program includes programs for market transformation designed to encourage competitive markets for public purpose programs, 69-8-402, MCA.
- BPA has worked with states, including Montana, in gaining a higher level of efficiency in new construction in the region.

- DEQ offers technical assistance and offers a loan program for renewable energy applications, 75-25-101, MCA. Agency provides consumers with information, convenes work groups to advance applications, and assists schools in entering into energy performance contracts. DEQ offers these services primarily using federal grants from the U.S. Department of Energy. DEQ is designated as the State Energy Office.
- Montana State University -- Integrated Design Lab. The lab provides education and consulting and technical services to architects and engineers on energy-efficient applications.
- State Buildings Energy program allows for upgrades, 90-4-601, MCA.
- "Montana In-State Investment Act of 1983"**:** Expresses legislative policy and purposes of the permanent coal tax trust fund, which are to: (1) compensate future generations for the depletion of resources caused by coal development; and (2) develop a strong economy for Montana. The Act states that the Board of Investments shall endeavor to invest 25% of the fund in the Montana economy, with special emphasis on local enterprises. Title 17, chapter 6, part 3, MCA, also sets forth authorized investments, limitations on investments, and preferences for investments of revenue from the coal tax trust fund, which, under 17-6-309(1)(d), MCA, expressly includes energy efficiency investments.
- Performance contracting mechanisms for schools, 90-4-1103, MCA.
- Limited resources to administer programs above, about $60,000 annually available. Focus historically on building sector.
- 20x10 Initiative activities will focus on capital improvements to state facilities.

Potential Actions:

* Legislative or EQC options (not complete, intended to be starting point for discussion):
- Legislation for incentives for energy efficient appliances or equipment.
- Rebates for high-efficiency appliances and equipment.
- Financing mechanisms for energy efficient improvements in residential, institutional and commercial arena. Similar to Alternative Energy Revolving Loan Program, which offer lower interest rates.
- Expand state buildings energy program to allow for more upgrades (RCII-12), 90-4-601, MCA.
- The 2007 Legislature contemplated Senate Bill No. 445 to revise the existing alternative energy revolving loan program to also include energy conservation projects. The bill died in committee.
- The 2007 Legislature contemplated House Bill No. 635 to create financial incentives for commercial construction or building renovations employing integrated design and other energy efficiency measure. It would have created an energy conservation credit against taxes for commercial construction. The bill died in committee.

* Resolution or recommendation stating intent
* No Action
* Administrative options:
- Establish a state or independent entity to assess cost-effective efficiency potential.

- Expand education programs at DEQ. Provide technical assistance specific to Montana's climate, resources, and cost of energy. Resources?

RCII-8
Support for Renewable Energy Applications

(62% of participating EQC members voting 4 or 5 and 58% of the public voting 4 or 5)
Same as ES-4, Incentives and Barrier Removal (including Interconnection Rules and Net Metering Arrangements) for Combined Heat and Power and Clean Distributed Energy. (54% EQC and 52% public).
✔ Provide 470 MW of Combined Heat and Power, 4.5 MW of solar PV, and 30 MW of small wind by 2020

Conservation Considerations:
- Displaces fossil fuel use and avoids electricity transmission and distribution losses
- Pages G-20 through G-26 Appendices

What's Being Done:
- **Financial incentives in place**
  - Alternative Energy Investment Corporate Tax Credit (15-32-401 MCA)—Commercial and net metering alternative energy investments of $5,000 or more are eligible for a tax credit of up to 35% against individual or corporate tax on income generated by the investment.
  - Residential Alternative Energy System Tax Credit (15-32-201 MCA)—Residential taxpayers who install an energy system using a recognized non-fossil form of energy on their home after December 31, 2001, are eligible for a tax credit equal to the amount of the cost of the system and installation of the system, not to exceed $500. The tax credit may be carried over for the next 4 taxable years.
  - Residential Geothermal Systems Credit (15-32-115 MCA)—Resident Montana taxpayers who install a geothermal heating or cooling system in their principal dwelling can claim a tax credit based on installation costs, not to exceed $1,500.
  - Bonneville Environmental Foundation–Renewable Energy Grant—Using revenues generated from the sales of Green Tags, BEF, a not-for-profit organization, accepts proposals for funding renewable energy projects located in the Pacific Northwest (Oregon,Washington, Idaho, and Montana). Any private person, organization, or local or tribal government located in the Pacific Northwest may participate. Projects that generate electricity are preferred. Acceptable projects include solar PV, solar thermal electric, wind, hydro, biomass and animal waste-to-energy.
  - BEF–Solar 4R Schools—This program began in 2002 to install small-scale solar energy systems at schools interested in increasing the visibility of renewable energy. BEF will generally completely fund or supply 1.1 kW system installations, fund up to 33% of other larger renewable energy projects, and

provide curriculum modules developed for schools. The school agrees to own and maintain the solar energy system, provide access to the system, and implement an educational outreach strategy.

- Renewable Energy Systems Exemption (15-6-224 and 15-32-102 MCA)—Montana's property tax exemption for recognized non-fossil forms of energy generation or low emission wood or biomass combustion devices may be claimed for 10 years after installation of the property. The exemption is allowed for single-family residential dwellings up to $20,000 in value and for multifamily residential dwellings or a nonresidential structure up to $100,000 in value.
- Alternative Energy Revolving Loan Program (75-25-101 MCA)—Provides loans to individuals, small businesses, local government agencies, units of the university system, and nonprofit organizations to install alternative energy systems that generate energy for their own use. The program is funded by air quality penalties collected by the DEQ. In 2005, Senate Bill No. 50 amended the loan program, increasing maximum loan amount to $40,000 (subject to available funds) and extending the repayment period to 10 years. Interest rates are set annually and are fixed for the term of the loan.
- Universal System Benefits Programs (69-8-402 MCA)—All distribution utilities and cooperatives must collect a Universal System Benefits charge (USB), which is used for renewable energy programs, as well as low-income assistance and weatherization, energy efficiency, and R&D programs. Beginning January 1, 1999, 2.4% of each utility's annual retail sales revenue in Montana for the calendar year ending December 31, 1995, was established as the initial funding level for universal system benefits programs. The USB programs will remain in effect until December 31, 2009. Utilities, cooperatives, and large customers can self-direct their funds to approved internal programs.
- Energy performance contracts**:** Allows local government such as county, city, school districts, and community colleges to enter into energy performance contracts that conserve energy for buildings and vehicles that those local government units operate, 90-4-1101, MCA.

- **Montana Rules, Regulations, and Policies**
  - Net metering (69-8-601 et seq. MCA)—Net metering is an arrangement that allows surplus energy generated by the customer's renewable energy system to go back to the utility electric system. The customer receives "credit" at retail rates for the electricity put back up to the amount of power the customer actually consumes at his/her location. Only NWE is required by legislation to offer net metering. Montana–Dakota Utilities and the electric cooperatives are voluntarily offering net metering. Terms of the offers vary by utility and can differ from these legislative requirements.
  - Interconnection standards (69-8-604 MCA)—Montana's net metering legislation, enacted in 1999, requires interconnected facilities to comply with all national safety, equipment and power-quality standards. NWE has published a standard interconnection agreement for net metered facilities; the agreement includes

language on the technical requirements for interconnecting. Technical language mirrors the state law requirements with respect to national standards but also requires a manual, lockable, external disconnect switch. NWE does not require system owners to purchase additional liability insurance, but encourages system owners to confirm with their insurance provider the limits of coverage applicable to interconnected systems.

- Electric Cooperatives–Net metering—The Montana Electric Cooperatives' Association (MECA) developed and adopted a model Interconnection of Small Customer Generation Facilities policy in 2001. The model policy includes guidelines for net metering, which have been adopted in whole or part by most of the 26 electric cooperatives in Montana. Cooperatives are currently working on streamlining the process for interconnection.

Potential Actions:

* Legislative or EQC options (not complete, intended to be starting point for discussion):

- Maintain Universal Systems Benefits program for small scale and community renewables. (Under consideration by Energy & Telecommunications Interim Committee).
- Provide specific incentives for combined heat and power.
- Consider offering different interconnection and net metering rules for smaller systems.
- Increase, review, or change incentives or regulations in existing law.
- Expand Alternative Energy Revolving Loan Program to defray some of initial costs of systems. Loan program outlined in 75-25-101, MCA.
- Develop a set of state-issued licenses for renewable energy system technicians and installers. Licenses would be tailored to renewable energy industry.
- Consider combined heat and power as a net-metering eligible resource.

* Resolution or recommendation stating intent
* No Action

RCII-10
Industrial Energy Audits and Recommended Measure Implementation
(62% of participating EQC members voting 4 or 5 and 57% of the public voting 4 or 5)

✔ Reduce industrial energy use by 10% by 2020.

Conservation Considerations:

- Reducing fossil energy and electricity use
- Pages F-37 through F-40 Appendices

What's Being Done:

- Universal Systems Benefits programs. Industries can self-direct payments for upgrades
- Montana Manufacturing Extension Service. Program provides assistance to small manufacturing businesses to improves process and efficiencies. Not targeted to energy use, but may be part of efficiency programs.

- Alternative Energy Investment Corporate Tax Credit, 15-32-401 MCA — Commercial and net metering alternative energy investments of $5,000 or more are eligible for a tax credit of up to 35% against individual or corporate tax on income generated by the investment. (This is for implementation, not audits.)

Potential Actions:

* Legislative or EQC options (not complete, intended to be starting point for discussion):

- Low-cost financing. Low- or no-interest loans for efficiency improvements, particularly for efficiency improvements for larger equipment.
- Monitoring and evaluation. Monitoring and evaluation arrangements to confirm effectiveness of installed measures, ensuring that emissions reduction levels are appropriately matched to incentives (including tax credits) awarded.
- Tax Incentives. Tax incentives for industrial energy efficiency improvements, possibly as an extension to the energy-related tax incentives recently adopted in House Bill No. 3, during the May 2007 Special Session.
- Self-audits and incentives. Offer opportunities for industrial facilities to self-identify measures for GHG reduction and to apply for incentives to implement identified measures that lead to demonstrable and cost-effective GHG emissions reduction. Audits exist under USB.

* Resolution or recommendation stating intent
* No Action
* Administrative options:

- Energy Star incentives. Provide incentives and information to encourage industries to adopt EPA Energy Star standards and measures.
- Waste heat to energy. Encourage collaboration between utilities and large industries that may have waste heat that could be tapped for power generation (this may also be an implementation option for RCII-7 and ES-4).

CC-4
State Climate Public Education and Outreach

(67% of participating EQC members voting 4 or 5 and 54% of the public voting 4 or 5)

✔ Shift in public consciousness to commitment to choices that enhance personal community and statewide health and contribute to productive, thriving natural systems.

Conservation Considerations:

- Pages J-11 through J-13 Appendices

What's Being Done:

- DEQ developing climate change website.
- DEQ developing materials and making materials available across the state.
- Alternative energy, financing mechanisms, and energy conservation research development and demonstration account established in 90-4-103, MCA.
- State energy policy goal statement to promote "energy conservation," 90-4-1001, MCA.

Potential Options:

* Legislative or EQC options (not complete, intended to be starting point for discussion):
- Direct DEQ to implement program and provide funding.
- Design program aimed at specific audiences, for example, younger generations, community leaders, industrial and economic sectors.
- Establish new office, provide funding. As example, proposal by Helena-based The Policy Institute to create energy conservation office in Department of Commerce.

* Resolution or recommendation stating intent
* No Action

TLU-9
Procurement of Efficient Fleet Vehicles

(62% of participating EQC members voting 4 or 5 and 60% of the public voting 4 or 5)

✔Goal of 70% all heavy duty vehicles and 90% of all light duty vehicles in state fleet to be energy efficient by 2020.

*** Note**: Much of the information below was prepared and offered by the Montana Department of Transportation.

Note provided by MDT on TLU-9:

MDT purchases fuel efficient vehicles that meet or exceed the Governor's 20x10 initiative and Senate Bill No. 449 requirements. MDT considers the EPA fuel efficiency ratings calculated over the life of vehicles for each purchase of light duty vehicles. MDT also purchases the most fuel efficient vehicles it can for heavy duty vehicles.

The 20x10 initiative states that state vehicles purchased between now and the end of 2010 are supposed to have a fleet average of 30 mpg. Senate Bill No. 449 states that vehicles purchased need to meet current CAFE standards, however, gives an exception to purchase alternative fueled vehicles (e.g. E85 vehicles). If alternative fuel vehicles are purchased as authorized by Senate Bill No. 449, then the fleet average of 30 mpg, as required by the 20x10 initiative, may not be realized. E85 vehicles average 4 to 6 mpg less than a standard fueled vehicle.

Conservation Considerations:

- Fuel Efficiency
- Pages H-41 through H-43 Appendices

What's Being Done:

- Governor's 20x10 initiative sets goals for the state vehicle fleet to achieve a 30 mpg average on all new vehicles purchased, with some exceptions. MDT began to meet this initiative by purchasing Hybrid sedans with a CAFE rating of 65.778 mpg fro the spring call. MDT plans to follows this initiative as it makes purchasing decisions in the future.
- The 2007 Legislature approved Senate Bill No. 449, requiring fuel efficiency standards for certain state-owned vehicles and requiring a plan for fuel and travel reduction by state agencies. Vehicles purchased after January 1, 2008 must meet or exceed CAFE

standards, with exemptions. The CAFE standards are 27 mpg. MDT met this goal with the fall purchase of vehicles by checking each grouping of vehicle ordered to ensure they met the CAFE standards. This is currently part of MDT's process in purchasing vehicles for the future.

- State Energy Policy requires the state to adopt a state transportation energy policy as provided in 90-4-1010, MCA and an alternative fuels policy and implementing guidelines as provided in 90-4-1011, MCA.

Potential Actions:

* Legislative or EQC options (not complete, intended to be starting point for discussion):
- Implement goals above through legislation. (Identify barriers to purchasing hybrid vehicles and research and develop solutions to procure hybrid or other lower GHG emitting vehicles in the state in considerations).
- Expand existing programs as outlined above.

* Resolution or recommendation of intent
* No action
* Administrative options:
- Establish that the state or appropriate agency will implement
- Enact procurement policies and/or join the EPA SmartWay program. The program provides information and suggested strategies to improve fuel economy and environmental performance of vehicle fleets.

AFW-8
Afforestation/Reforestation Programs -- Restocking

(62% of participating EQC members voting 4 or 5 and 59% of the public voting 4 or 5)

✔ Ensure restocking on 20% of accessible forest lands impacted by high severity (stand replacement) wildfire since 2000 to restocking rates of 200/400 trees/acre. For future fires, re-stock 30% within 5 years of wildfire. Plant 42,250 new trees in Montana communities by 2020.

***Note**: Much of the information below was prepared and offered by the Department of Natural Resources and Conservation.

Note provided by DNRC on AFW-8:

Since 2000, it is estimated that over 1 million forested acres have been burned in Montana, with about 1/3 of those being high severity burns that require some level of restocking. Some of these areas have been replanted; however, there are an estimated 70,000 acres still requiring replanting. In addition, each year there are an estimated 20,000 acres/year of forests burned with high severity. Together, there is a need for restocking on about 25,000 acres/year on federal, state, and private lands in Montana between 2008 and 2020 to meet the goals of this policy.

Conservation Considerations:

- Reforestation
- Pages I-43 through I-49 Appendices

What's Being Done:

- Montana Conservation Seedling Nursery, Urban and Community Forestry, and reforestation programs are managed by the DNRC at traditional levels. Includes Forestry Assistance Program.
- DNRC Trust Lands Division manages a replanting program that plans 1,000-1,500 acres/year.
- DNRC's Forestry Best Management Practices encourage rapid reforestation post-harvest, but Montana does not have regulations that direct landowners to replant post-harvest.
- Long-term maintenance. General rules for maintaining long-term productivity of forest-lands on state trust lands, but not specific rules for reforestation.

Potential Actions:

* Legislative or EQC options: (not complete, intended to be starting point for discussion):

- Expand or review existing programs.
- The 2007 Legislature contemplated House Bill No. 227, which created a terrestrial carbon sequestration loan account. The bill would have established a revolving loan account administered by the DNRC. It required outcome measures and provided funding for the program. The bill died in committee.
- Market-based incentives. Support and engage in private sector markets for terrestrial carbon sequestration (e.g., Chicago Climate Exchange).
- Provide state funding to support and staff DNRC Forest Stewardship and Pest Management Programs. These programs provide education and incentives to non-industrial forest landowners, encouraging the importance and practice of stand regeneration, post-fire reforestation, restocking, and identifying and managing forest insects and diseases. These programs are currently federally funded but are at risk of losing those funds.

* Resolution or recommendation of intent
* No action
* Administrative options:

- Technical assistance. Develop interagency partnerships with the NRCS, USFS, conservation districts, and the Montana DNRC to deliver comprehensive private forest landowner assistance and cost-share programs for forest management and post-fire rehabilitation. Develop interagency site-specific reforestation plans post-burn with planting targeted for stand replacement fires.

AFW-7
Expanded use of Biomass Feedstocks for Energy Use

(69% of participating EQC members voting 4 or 5 and 51% of the public voting 4 or 5)

✔ Increase the use of woody biomass residue for renewable electricity, heat and steam

generation to 450,000 tons/year by 2020 and agricultural biomass to 540,000 tons annually by 2020.

***Note**: Much of the information below was prepared and offered by the Department of Natural Resources and Conservation.

Conservation Considerations:

- Reduce fossil fuel use
- Pages I-36 through I-42 Appendices

What's Being Done:

- UM Western installed a biomass boiler in 2007 with grant from DNRC and State Building Energy Program from DEQ (will be repaid through energy savings). UM Western, DNRC, A&E, and DEQ have worked to sell the carbon offsets from the boiler to The Climate Trust and received $117,000 for the project in carbon offsets.
- Eight additional wood biomass boiler systems have been installed in Montana public schools under the DNRC Fuels for Schools and Beyond Program since 2003.
- Montana Renewable Portfolio Standards. Requires public utilities to obtain 15% of their retail electricity sales from eligible renewable resources by 2015.
- Renewable Energy Credits. Create market for clean power generated by biomass. Western Governors' Association and California Energy Commission are developing Western Renewable Energy Generation Information System, a regional renewable energy tracking and registry system.
- Alternative Energy Revolving Loan Program. Provides loans to individuals, small businesses, local government agencies, units of the university systems, and nonprofit organizations to install alternative energy systems that generate energy for their own use. Maximum loan amount is $40,000 with a fixed interest rate, and the loan must be paid back within 10 years, 75-25-101, MCA.
- Capital investment in biomass combustion devices are exempt from taxation for a period of 10 years following installation of the property: (1) $20,000 in the case of a single-family residential dwelling and (2) $100,000 in the case of a multifamily residential dwelling or a nonresidential structure, 15-6-224, MCA.
- Small electrical generation equipment exemption, including biomass equipment, 15-6-225, MCA. Additional incentives in 15-32-101, MCA. Tax credits also in law.
- House Bill No. 3 approved during May 2007 Special Session provides tax incentives for use of biomass, Title 15, Chapter 24, part 31, MCA.
- Montana Electric Cooperatives–Net-metering. Under the model policy, customers generating their own electricity using (but not limited to) wind, solar, geothermal, hydro, biomass, or fuel cells may participate in net-metering.
- Mandatory Green Power Program. NorthWestern Energy offers its customers the option of purchasing a product composed of or supporting power from certified environmentally preferred resources generated by renewables, including biomass.
- DNRC Biomass Utilization and Fuels for Schools and Beyond Program. Promote the use of forest biomass as an energy source for heating schools and other public facilities.

- DNRC Forestry Assistance Programs. Maintain and improve the health of Montana's forests, forested watersheds, and the communities that depend on them. Tools include information and education, technical assistance, and financial assistance.
- USFS Woody Biomass Utilization policy. Recently implemented, it requires that contractors doing work on federal lands haul and pile slash at landings to help facilitate removal of biomass during forest operations for utilization.
- DNRC State Trust Lands Forest Management Program. Timber sale bid process incentivizes removal of biomass residues for utililization.

Potential Actions:

* Legislative or EQC options (not complete, intended to be starting point for discussion):

- State lead by example. Require consideration of renewable energy resource systems (including biomass heat/energy) in all new state building constructions and renovations, including public schools, where cost-effective.
- Provide continued state support to the DNRC Biomass Utilization and Fuels for Schools and Beyond Program, which identifies financially viable opportunities for biomass utilization and energy generation. Includes conducting project feasibility assessments and assisting facilities in identifying funding, securing fuel supply, and providing technical assistance and support from project design to installation and operation.
- Expand the Alternative Energy Revolving Loan Program. Increase the maximum loan amount to $500,000, lower interest rate to $\leq$2% and make more funds available.
- Source reduction. Reduce the amount of open slash pile burning on all lands and/or provide viable alternatives to open burning. Revise DEQ air quality permits and local ordinances to discourage open burning and encourage alternatives.
- Provide full spectrum of tax incentives, or revisit existing incentives, to reduce the capital costs of biomass energy production, including electricity generation and heating of residences and public buildings.
- Establish utility “buyback rates” for biomass-derived energy where utilities offer a standard rate for which they purchase biomass-generated energy (electricity and/or heat).
- Modify Montana Renewable Portfolio Standards to include mandatory standard for energy generation from renewables and include standards for thermal energy production. Heat production is the highest value, most efficiently derived energy product from wood biomass when compared to electricity production.
- Pilot projects on the use of different forestry (e.g., bio-refineries) and agriculture residues (e.g., cellulosic ethanol plants) for energy and liquid fuel production (e.g. cellulosic ethanol plants and bio-refineries) are needed.
- Research and development. Research on techniques for the collection, processing, transportation, storage, and distribution of forestry and agriculture residues, as well as market development or expansion for these materials.
- Research to characterize emissions from biomass boilers and their impacts on community air pollution and development of ways to minimize those impacts.
- Market-based mechanisms. Incentives (e.g., preferential tax rates).

- Expand the Montana Renewable Energy Tax Credit. Lower the eligible threshold capacity from 10 MW to 1 MW and expand the classification of corporate taxpayers and include general income taxpayers.
- Expand existing net-metering regulations to enable smaller projects of up to 2 MW to net-meter at retail energy rates.

* Resolution or recommendation of intent
* No action
* Administrative options:

- Voluntary/negotiated agreements. Voluntary, incentive based programs used to foster the development of the industry and associated economic markets. Provide landowners and/or corporations with opportunity to enter into agreements to better utilize biomass for energy.
- Work with local communities to develop responsible ordinances and continue to evaluate and discuss those that allow the use of EPA–certified wood/pellet burning equipment (instead of broad burn bans that apply to all wood-burning equipment).Work with regional and national efforts to increase efficiency standards and cost-effective emission control technologies for wood-burning equipment (e.g., furnaces, stoves, boilers).

AFW-4
Incentives for Enhancing GHG Benefits/ Farm Bill Conservation
(67% of participating EQC members voting 4 or 5 and 51% of the public voting 4 or 5)

✔ Retain land that is being retired from CRP in some type of management program that protects the soil carbon.

Conservation Considerations:

- Pages I-24 trough I-27 Appendices

What's Being Done:

- CRP is currently capped at 25% of Montana cropland per county.
- NRCS CRP rewards farmers financially for removing highly erodible and marginally productive land from production.
- Program is national in scope and potential actions may be as well.

Potential Actions:

* Legislative or EQC options (not complete, intended to be starting point for discussion):

- Education and training. Workshops or expansion of existing efforts.
- Leverage existing federal and state conservation cost share programs. Have state agencies incorporate USDA-approved carbon sequestration planning criteria into program literature and technical assistance to landowners.
- Provide assistance to conservation districts in discussing terrestrial carbon sequestration.

* Resolution or recommendation of intent
* No action

CC-7.1
Target for Reducing the State's Own GHG Emissions
(64% of participating EQC members voting 4 or 5 and 52% of the public voting 4 or 5)

✔ Reduce GHG emissions from Montana State Government to 1990 levels by 2018 and 5% below 1990 levels by 2020.

Conservation Considerations:

- Pages J-2 through J-4 Appendices

What's Being Done:

- Governor has set goal of 20% reduction in energy use in state government by 2010.
- State Building Energy Conservation Act, 90-4-601, MCA.
- The 2007 Legislature approved Senate Bill No. 449, requiring fuel efficiency standards for certain state-owned vehicles and requiring a plan for fuel and travel reduction by state agencies. Vehicles purchased after January 1, 2008 must meet or exceed CAFE standards, with exemptions.
- State Energy Policy requires the state to promote energy conservation, production, and consumption of a reliable and efficient mix of energy sources that represent the least social, environmental, and economic costs and the greatest long-term benefits to Montana citizens, 90-4-1001, MCA.

Potential Actions:

* Legislative or EQC options (not complete, intended to be starting point for discussion):
- Additional resources for state building energy efficiency.
- Require renewable energy sources, i.e. solar, etc, at state buildings, where cost-effective.
- The 2007 Legislature contemplated House Bill No. 238 to require efficiency audits in state-owned buildings. The bill missed a transmittal deadline and died in committee.

* Resolution or recommendation of intent
* No action
* Administrative options:

- Develop program for keeping inventory of emission sources and sinks on continuing basis with forecasts. (This could be integrated into DEQ's existing inventory and forecasting functions). Depending on scope could require resources.

RCII-11
Low Income and Rental Housing Energy Efficiency Program
(54% of participating EQC members voting 4 or 5 and 58% of the public voting 4 or 5)

✔ Increase energy efficiency by 30% in 50% of low income units by 2015.

Conservation Considerations:

- Reduce energy consumption
- Pages F-41 through F-45 Appendices

What's Being Done:

- Department of Health and Human Services provides low income weatherization and fuel bill assistance program. LIEAP is used to prioritize homes. For example, in the current year, the weatherization program weatherized about 1,800 homes annually, with 19,000 homes eligible and in need of weatherization. Currently, it is the income of the household at the time of application that determines eligibility.
- Warm Homes campaign initiated by Governor Schweitzer in 2006.
- AARP and Habitat for Humanity are two organizations that currently strive to educate people about existing programs.
- Low-income energy programs are funded either through federal money allocated to the state or through the Universal System Benefits program charge assessed to electricity and gas consumers, 69-3-1408, MCA and 69-8-402, MCA.
- Energy Share of Montana is a nonprofit organization funded by USB dollars and private and corporate donations. Energy Share helps Montanans faced with energy emergencies meet their needs by providing bill assistance, furnace safety, and weatherization.
- Public utilities and some electric cooperatives assist low-income Montanans by providing their LIEAP customers with an additional discount on their electric bills. Discounts range from 15% to 30%, depending on the utility and the fuel source. Some utilities and cooperatives also provide flexible payment options. Public utilities and electric cooperatives also help fund low-income weatherization.
- Tax credits. In 2006, about 3% of eligible Montana households used state tax credits for energy conservation.
- The 2007 Legislature approved House Bill No. 41 that eliminated restrictions on the use of the principal of the energy conservation and energy assistance account in the federal special revenue fund.

Potential Actions:

* Legislative or EQC options (not complete, intended to be starting point for discussion):

- Expand existing programs, additional funding sources.
- Revise existing USB program to change how funds are allocated and for what purposes.
- Grant program for qualified homeowners to complete weatherization projects.
- Tax credit program for landlords. Income tax credits for rental property owners who weatherize rental properties to meet energy efficiency standards.
- Utility bill disclosure. Require that at time of sale or rental disclosures include existing utility bills for a dwelling.
- Rental property efficiency programs. Command-and-control requirements, for example, a program for licensing or certifying energy efficiency of rental properties.
- Financing. Provide low-interest loans, aimed specifically at low income homeowners or rental property owners and managers, for energy efficiency improvements.
- Replace substandard housing. State support for financing or purchasing of efficient manufactured housing to replace manufactured (or other) housing that can't be practically weatherized. House Bill No. 2, approved during the May 2007 Special Session, authorized $354,886 for a revolving loan program for manufactured home replacement.

- The 2007 Legislature also contemplated Senate Bill No. 210 to increase the individual income tax credit for energy-conserving expenditures. The bill included a proposed tax credit for taxpayers with a family income of less than or equal to 150 percent of the federal poverty level. The bill died in committee.

* Resolution or recommendation of intent
* No action
* Administrative options:

- Prioritize and increase efficiency in delivering existing weatherization dollars.

RCII-6
Consumer Education Programs
(54% of participating EQC members voting 4 or 5 and 58% of the public voting 4 or 5)

✔ Educate consumers and children to make informed decisions to reduce energy use, improve efficiency, and reduce environmental consequences. Educate professionals working in energy efficiency to better inform consumers.

Conservation Considerations:

- Pages F-27 through F-30 Appendices

What's Being Done:

- DEQ participating in home shows, answering consumer questions, and distributing print materials. (Information on Montana tax credits and general energy savings information most often requested).
- DEQ conducts training for builders and building code officials.
- Public Service Announcements through Governor's Office air on television.
- Montana Energy Education Council (MEEC) provides training for teachers and students on energy.
- Many existing, nonprofit organizations, such as AERO, provide information on conservation.

Potential Actions:

* Legislative or EQC options (not complete, intended to be starting point for discussion):

- Provide resources to expand existing programs. For example, dovetail consumer education related to energy efficiency with public broadcasting media.
- Direct the Montana Office of Public Instruction and others to develop and implement curricular for primary and secondary schools that educate students on consumption choices.
- Implement and enhance professional education and certification programs for educators and others involved in providing products and services related to energy use. Train professionals, for example, architects, engineers, and builders, to advise the public on energy choices. Provide follow-up surveys to gauge effectiveness of programs.
- Design programs to discourage use of excessive lights.
- Provide funding for advertising of existing programs or expanded programs.

- Incentives. Offer incentives or vouchers (for energy efficient products) for consumers who undertake consumer education and/or change consumption patterns.

* Resolution or recommendation of intent
* No action

In addition to the analysis of the 15 climate change recommendations, I also am sending a Question & Answer background document on the 20x10 initiative. The questions were prepared by the Legislative Fiscal Division of Legislative Services. The responses were provided by the Department of Environmental Quality.

If you have questions prior to the EQC meeting on May 12 & 13, please feel free to contact me at snowakowski@mt.gov or at 444-3078.

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ENVIRONMENTAL QUALITY COUNCIL

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July 1, 2008

To: Environmental Quality Council members
From: Sonja Nowakowski, EQC staff
Re: Climate Change Proposals

EQC members:

This memo is intended to serve as a brief overview of the attached draft legislation and reports. During the May meeting, members directed staff to develop a series of discussion drafts, letters and reports.

In completing the assignment, staff worked with various agencies in an effort to collect adequate background information for the Council, as well as to complete bill drafts that correspond with the Council's direction. Agency staff who provided information to assist staff also have been invited to the EQC's July 14-15 meeting to answer additional Council questions.

During the July meeting, the Council will review and further refine the information. The discussion drafts that are revised and approved will then be put out for a formal public comment period in August. The Council will make a final decision on the legislation at its meeting in September.

1. **LC6000**. Legislation to increase funding for Montana Manufacturing Extension Center (through Coal Severance) and request additional funds be used to promote and develop recycling technologies.
LC6000. Legislation to eliminate the sunset on funding (through Coal Severance) for Growth through Agriculture program and Montana Cooperative Development Centers.

- These two requests were combined into one discussion draft.
- The interest income from the coal severance tax permanent fund is set to expire in 2010.
- The discussion draft removes the sunset date, continuing the $65,000 allocation to the Cooperative Development Center and $1.25 million for the Growth through Agriculture program.
- In addition, the discussion draft increases the allocation to the Montana Manufacturing Extension Center from $200,000 to $300,000.

- The draft requires that 35% ($105,000) of the Montana Manufacturing Extension Center funding be used in collaboration with the Department of Environmental Quality to encourage manufacturers and commercial business owners to recycle.
- A biennial report to the EQC on such activities also is required.

Additional notes: The Department of Agriculture has requested continued funding at these levels for the programs in its proposed budget, however, the request has not yet gone through the Governor's Office. The Department of Agriculture also has indicated to OBPP it will pursue a legislative request if it is not included in the budget. The $1.25 million represents nearly 70% of the Growth through Agriculture budget. The coal severance funding provides 25% of the Montana Cooperative Development Center program budget, which uses the money to leverage federal dollars.

The Department of Commerce has requested continued funding at the $200,000 level for the Montana Manufacturing Center in its budget request, which also has not yet gone through the Governor's Office.

MMEC uses the $200,000 provided by the coal severance tax as a state contribution (match) to obtain $512,000 per year from the National Institute of Standards and Technology's Manufacturing Extension Partnership (NIST MEP). Technically, this is not a grant; it is a Cooperative Agreement with NIST MEP. MMEC is required by Congress to match on a 2:1 ratio, so needs just over $1 million in non-federal funds. MMEC also charges clients for services and has other non-federal sources of cash and in-kind match through a variety of partnerships and activities. MMEC's typical annual cash budget is about $1 million, with the $200,000 providing about 20% of the budget. The remaining $500,000 is non-cash. The Manufacturing Center also provided **background information and comments on the draft**. The information is attached to the draft.

The 2010 Coalition also is working on extending the programs that are set to sunset.

2. **LC6001**. Legislation creating a loan program to assist political subdivisions of the state, including local and tribal governments, in developing recycling technologies and equipment at local landfills.

- The draft creates a $1 million recycling equipment revolving loan account to the credit of the DEQ. The money is a one-time transfer from the junk vehicle disposal fund into the new account.
- Loans can be provided to local governments, universities, tribes, and non-profit organizations. (For profit entities and private enterprise are not eligible.) The money must be used to assist in the purchase of equipment and machinery.
- The loan amount may not exceed $50,000 and must be repaid in 10 years.
- DEQ is granted rulemaking in administering the low-interest loan program.
- Outcome measures include a loan loss ratio under 5%, tracking and reporting of loan amounts and purposes, an assessment of the loans impact on the amount and type of recycling, and an estimate of the amount of material diverted from the local landfill for the 3 years following the loan.

Additional notes: There is currently a $4.2 million fund balance in the junk vehicle disposal account. The programs total appropriation is $2.4 million, and about $1.9 million has been spent to date. A portion of the program revenue, as required by 75-10-534, MCA, is returned to Montana counties for county junk vehicle programs.
The fund balance can be attributed to increased scrap metal prices. The program administrator indicated the additional revenue, however, has a flip side. For about the last 12 months, scrap metal prices have been on the rise. However, high metal prices also have reduced the number of vehicles being hauled and junked through the program. In Yellowstone County, for example, the lot usually holds between 600 and 700 junk vehicles. It currently sits with about 200 vehicles in the lot. Missoula County is in a similar position. Because of scrap metal prices, more people are choosing to strip down and junk their own vehicles, rather than have the county handle it. The increased revenue then is not expected to continue, according to program administrators.

3. **LC6002**. Legislation to eliminate sunsets on tax incentives for recycling. This includes the recycled materials tax deduction (Dec. 2011 sunset) and the credit against air permitting fees for certain uses of post-consumer glass (Dec. 2009 sunset). It also includes the tax credit for investments in property or equipment used to collect or process reclaimable materials. (Dec. 2011 sunset)

- The credit against air quality permitting fees for certain uses of post-consumer glass in recycled materials terminates in Dec. 2009. (75-2-224, MCA)
- The amount of the credit is $8 for each ton of post-consumer glass used as a substitute for nonrecycled material. The maximum is $2,000 or the total amount of fees, whichever is less.
- The discussion draft eliminates the termination date for the tax credit for investment in property used to collect or process reclaimable materials. (15-32-601, MCA) It expires in Dec. 2011.
- The amount of the credit is determined in accordance with a percentage of the investment cost, i.e. 5% of the cost of the property on the next $500,000 invested.
- The deduction, 10% of the taxpayer's expenditures for the purchase of recycled materials, expires in January 2012. (15-32-610, MCA)

Additional Notes: The DEQ/Air Resources Management Bureau applied the postconsumer glass credit twice in the past five years: a.) Holcim US Inc. -- received a credit of $581 in billing year 2002 and Holcim received a credit of $1,500 in billing year 2003. The DEQ does not have a position for or against the credit. As a point of information, the credit is a benefit to recycling glass only to those businesses or industries that need an air permit. At one time, the credit was a benefit to a few companies that used glass and had an air quality permit, according to DEQ. Currently, the businesses that are using glass are not likely to be covered by air permits, so they do not receive a benefit. For example, glass is being used as an aggregate in concrete by a construction company, by a tile artist, and for bedding for pipes in construction.
Use of the credit for investment in property used to collect or process reclaimable materials has increased, with 89 taxpayers claiming the credit for a total of $797,243 in 2006. This is an increase from $431,512 in 2005. Purchasing equipment to collect, store, and process recycled

materials is necessary to expanding recycling operations but can be cost prohibitive, according to the DEQ. The agency also added, "this tax credit assists with an ongoing need that is not likely to go away."

The DEQ provided the following comments on the deduction: "In order to meet goals for recycling, it is necessary to create a complete loop. Goods must be collected for recycling, processed into new goods, and then purchased by consumers. The credit and deduction work together to assist in completing the loop. The deduction helps create the demand to purchase recycled products that helps to drive the demand for materials to be recycled."
The Department of Revenue provided the following information on the deduction for EQC use:

Deduction for Business Use of Recycled Material		
Tax year	Taxpayers claiming credit	Amount of credits
2005	62	$13,049,514
2006	65	$21,368,400

4. **LC6003**. Legislation that assists in creating more markets for recycled materials through research and education.

- The draft creates a recycling and waste reduction grant act.
- An advisory council, appointed by the DEQ director, assists the department in awarding the grants.
- The department is granted rulemaking authority to provide for grant application procedures and procedures for awarding grants on an annual basis through a competitive process.
- Two alternative funding mechanisms are offered in the draft to provide about $440,000 for the grant program.
- Council expenses, administration costs and allocations to the department for statewide advertising and workshops related to recycling are limited to 15% of the total. The restriction leaves about $375,000 to be awarded through the grant process.
- The first funding mechanism is a 35 cent per ton fee on solid waste. The second funding mechanism allocates 1.2% of the coal severance tax revenue to fund the program.
- If the fee is used as a funding mechanism, the draft requires the payees to have priority in the application process. If the second funding mechanism is pursued, the priority status would need to be reviewed.
- Grants would be used to purchase equipment, promote the expansion of waste reduction and recycling businesses, research and demonstrate how waste reduction and recycling can be applied to Montana markets, assist in market development activities that develop local uses for recycled materials, and to conduct educational activities.

Additional notes: The 35 cent per ton fee on solid waste would generate an estimated $440,000 annually. The tonnage for FY 2009 is estimated to be 1,241,652 tons. In accordance with the state's Integrated Waste Management Plan, that tonnage is expected to decrease by about 2% annually due to increased recycling. The amount available for grants would then decrease over time.

The alternative funding mechanism allocates 1.2% of coal severance tax collections to the program. Based on LFD revenue projections of $36.164 million for FY 2009, this funding mechanism would generate about $434,000 for the program. This would decrease the percentage of coal severance tax revenues credited to the state general fund from 26.79% to 25.59%.

Number of tipping fee paying solid waste management facilities in Montana
(Note: If the tipping fee were to increase, the following stakeholders would potentially be impacted: MACo, League of Cities & Towns, and those represented by the Solid Waste Advisory Council, according to DEQ)

Classification	Number
Class II Major	11
Class II Intermediate	13
Class II Minor	9
Major Transfer Station	5
Minor Transfer Station	5
Large Composters	5
Major Soil Treatment Facility	4
Class III Major	16
Class III Minor	38
Class IV Major	1
Class IV Minor	1

5. Receive a **report** on potential legislation being pursued by the **Economic Affairs Interim Committee** concerning **S.J. 13**, a study of methods and recommendations to add value to Montana agricultural products through redevelopment of a food processing industry.

- The Economic Affairs Interim Committee was presented with four potential options for addressing value-added agriculture during their May meeting.
- Options include a.) increase the number of food innovation centers. b.) encourage in-state collaboration for value-added agricultural production. c.) increase funding for meat

inspectors. d.) increase vocational technical college budgets to respond to local value-added agriculture production needs.

- The EAIC did not act on the proposals, and they have not been scheduled for further consideration. The EAIC next meets July 17-18.

6. **LC6004**. Legislation to provide tax incentives or tax credits to use Montana raw materials for production of food in Montana.

- The draft provides a tri-phase tax abatement for food production facilities, based on the percentage of Montana grown raw materials used in their production.
- Greater use of Montana grown materials results in a larger tax abatement, up to 50% for a ten year period.
- Some of the technical structure of the abatement is similar to the "Clean and Green" proposal, HB 3, passed in the May 2007 Special Session.

Additional notes: The **Department of Agriculture provided comments** on the overall idea of legislation, and those comments are attached.

7. Send a **letter** to the Commissioner of Higher Education encouraging Montana universities to track, as economically as is feasible, the amount of locally grown food produced and consumed in Montana. Send a **letter** to the Commissioner of Higher Education asking Montana's universities to provide a report and recommendations on biomass, specifically the feasibility of the collection, processing, transportation, storage, and distribution of forestry and agricultural residues, as well as market development or expansion for these materials.

- Issues of biomass and tracking of locally produced and consumed food combined into one letter.
- Letter approved by Chair and Vice-chair and mailed May 20, 2008.
- Requests Montana University System for help in developing a formal tracking system of locally grown foods.
- Requests a report and recommendations from MUS in the next biennium on the feasibility of the collection, processing, transportation, storage, and distribution of forestry and agricultural residues, as well as ideas on expanding the market for biomass materials.

8. **LC6005**. Legislation requiring the Department of Transportation to provide a report to the **Revenue and Transportation Interim Committee** on measures that the Department is taking to conserve energy in the transportation sector and conservation measures specific to city street design each interim.

9. **LC6006.** Legislation to update and remove any restrictive statutes related to mass transit.

- The discussion draft increases the percentage of motor vehicle revenue directed to the senior citizen and persons with disabilities transportation services account included in 15-1-122, MCA.

- The percentage increase would generate an estimated $630,000 to $660,000 for TransADE, Transportation Assistance for Disabled and Elderly, an amount similar to what was collected prior to the 2005 change in the allocation of motor vehicle registration revenues.

Additional notes:
In 2001, the Montana Legislature approved S.B. 448. The bill created a senior citizen and persons with disabilities transportation services account in the state special revenue fund, 7-14-112, MCA.

The Department of Transportation uses the account to award grants to counties, incorporated cities and towns, transportation districts, and nonprofit organizations for transportation services using guidelines established in the state management plan for the purposes described in 49 U.S.C. 5310 and 5311. (Providing services for persons 60 years of age or older, persons with disabilities and for public transportation in rural areas.)

A 25 cent vehicle license and registration fee was deposited into the account to sustain the program. In FY 2004 the fee generated $629,442.

In 2005, the Montana Legislature approved S.B. 285, which revised how motor vehicle fees are collected and distributed. It eliminated the 25 cent fee and instead allocated .59% of the motor vehicle revenue deposited in the state general fund in fiscal year 2006 and 0.31% of the motor vehicle revenue deposited in the state general fund in each succeeding fiscal year to the account. In FY 2006 (at .59%) the fee generated $665,891

Under the current statute, the program receives .30% of the motor vehicle revenue. Following the revision, the allocation to the account has substantially decreased. In FY2007, the allocation provided $298,018 and to-date for FY 2008, it has generated $307,812.

In 2007, the Legislature approved S.B. 160, which allowed money in the account to be used for purposes in 49 U.S.C 5311. The change was prompted by a 240% increase in Federal Section 5311 funding beginning in 2006, which required a nonfederal match. However, because revenues in the senior citizen and persons with disabilities transportation services grant has declined, the department has been limited in its ability to maximize use of the 5311 funding.

Staff spoke with several transit providers in the state, inquiring about potentially restrictive statutes related to mass transit. Several noted that in 2005, the Legislature approved H.B. 273, which exempted rural transportation providers from Public Service Commission authority. That legislation addressed the most immediate issue. However, transit providers all discussed various concerns with funding. The change in the account mentioned above, more commonly referred to as TransADE, was mentioned by most providers. The Montana Transit Association (MTA) also mentioned:

- Excluding transit providers from the recovery of indirect costs, required by H.B. 21 of the 2002 Special Session. Indirect costs are applied to all federal funds provided to MDT grantees. An example of the impact, according to MTA, is as follows: Current match on operating is 46%; administrative is 30%; Capital is 14%; the indirect cost rate will increase from 12.25% to 14.06%, reducing the amount available for program

expenditures. MTA raises concerns about money going toward administrative costs (i.e. indirect or overhead costs) rather than capital and program expansions. MDT staff raises the issue that federal guidelines require federal funds be treated equally by MDT, unless prohibited by the federal government. Indirect costs are recovered from all highway, transit, aeronautics, and highway traffic safety funding, consistent with federal and state guidelines.

- Requiring a review of Urban Transit Districts every 5 years or in conjunction with the decennial census review/adjustment of urban area boundaries. MDT notes that it is currently involved in the review.

As a final note, the Legislative Finance Committee is working on LC 65, which eliminates the permanent general fund transfers included in 15-1-122, MCA. That includes the transfers of motor vehicle fee revenue. "In eliminating the permanent general fund transfers, the committee's intent was not to short the programs, but to replace the lost revenue from the general fund with general fund appropriations in H.B. 2," according to an overview of the proposal.

10. **LC6007**. Legislation providing additional funding for weatherization programs. Funding would come from a percentage of the increased oil and gas revenues realized in Montana.

- The estimate for the general fund allocation of the oil and gas production tax for 2009 is $101.3 million, an increase of more than $8 million from the actual amount collected in 2006.
- The bill creates a weatherization account by allocating 5% of the oil and natural gas production taxes. Based on the 2009 projected revenue, this would generate about $5 million.
- The Department of Health and Human Services is required to spend the money for home weatherization programs.

Additional Notes: Another option may be to look at the coal bed methane protection account, which also receives oil and natural gas production taxes. The account now stands at about $6 million. Since June 2005, the principal has been available for emergencies. None has been expended. After June 2011, funds maybe be expended for: a.) a loss of agricultural production or a loss in the value of land. b.) a reduction in the quantity or quality of water available from a surface water or groundwater source that affects the beneficial use of water. c.) the contamination of surface water or groundwater that prevents its beneficial use. At that time, the limit per landowner is $50,000. (76-15-905, MCA)
One option may be to consider a one-time transfer of funds from the CBM account and/or redirecting some of the revenue flow to the weatherization account. For example, a transfer of $3 million to the weatherization account and a reduction of 1 percentage point, would keep $3 million in the CBM account plus an allocation of about $230,000 annually through 2011, when the flow terminates.
Under this option, the amount of tax revenue to the weatherization account would need to be increased after 2011 to keep up the funding level.

11. **LC6008**. Legislation to expand tax credits (similar to those proposed in **S.B. 210** in 2007) to create incentives for low-income property owners, landlords and/or renters to weatherize.

- The draft is identical to Senate Bill 210, as it was amended by the Senate Taxation Committee and approved by the Senate during the 2007 Legislative session. S. B. 210 was later tabled by House Taxation.
- The draft amends 15-32-109, MCA, which provides a credit for energy conservation investments in a building.
- It increases the limit on the credit from $500 to $800 and includes lighting in the investments that are eligible for the credit.
- The draft also makes the credit refundable for single taxpayers with adjusted gross incomes of $12,590 or less and married taxpayers with adjusted gross income of $14,590 or less, adjusted annually for inflation
- It also allows pass-through entities to claim the credit for investments in a residential rental building

Additional notes: The fiscal note for S.B. 210 indicated the increased credits would reduce general fund revenue by $2.9 million in FY 2008, increasing to $3.5 million in FY 2010. (S.B. 210 would have terminated in Jan. 2010. The discussion draft does not include a termination date.) As background, use of the credit has increased. On 2005 returns, 14,060 claimed the credit for a total of $5.7 million. On 2006 returns, that increased to 19,041 taxpayers for $8.1 million. The **fiscal note** for S.B. 210 is attached.
The income levels in the discussion draft are the income levels for the Earned Income Tax Credit that can be claimed on federal tax returns. At 100% of the 2008 federal poverty levels, those income levels would be $10,400 for one person and $14,000 for a couple. At 150% of the federal poverty level, the amount used for LIEAP, the corresponding income levels are $15,600 and $17,500.
The draft also does not address providing low income folks with the resources to pay the up front costs of installation. Based on the S.B. 210 fiscal note, on 2005 returns, taxpayers who met the income requirements to have the credit refunded claimed credits that were $226,365 more than their tax liability. Under the draft, that amount would be refunded to taxpayers.

12. **LC6009**. Study bill requiring the EQC during the 2009-2010 interim to study biomass and provide specific direction on issues including, but not limited to, expanding the Alternative Energy Revolving Loan Program, better utilizing the Renewable Resource Grant Program, promoting pilot projects, source reduction, emissions research and characterization, and a spectrum of tax incentives.

Additional notes: The Department of Natural Resources and Conservation has provided the EQC with three specific suggestions related to advancing biomass. Those suggestions include: a.) revisions to the Alternative Energy Investment tax credit. b.) an income tax credit for removing and processing biomass for energy use. c.) modifications to Montana's Renewable Portfolio Standards. The **full memo** from the DNRC is attached.

13. **LC6010**. Resolution in support of the National Association of Counties stand in support of Congress enacting legislation granting a Governor authority to declare a crisis when the severity of fire danger from fuels on identified federal lands within that state pose a significant threat to public health and safety. Upon a declaration, responsible federal agencies would fast-track a mitigation plan to reduce forest fuels. The plan would be excluded under the NEPA appeal process, and any claimant filing a court action against the plant would be required to post a damage bond.

14. **LC6011**. Legislation to require all new state buildings to exceed current building codes or standards, potentially through an expansion of the State Building Energy Efficiency program.

- The draft requires new state buildings to meet the LEED silver standard.
- Tracking of efficiencies attained is included.

Additional notes: The Department of Environmental Quality researched LEED standards in other states and provided **background information**. Instead of LEED standards, there is the possibility of requiring new buildings to use 20% to 30% less energy than allowed by the adopted International Building code. The Department of Administration is responsible for all building construction and the issue of advanced building requirements would likely need to be discussed with A&E.

Montana Manufacturing Extension Center comments

Provided by Director Steve Holland, 406.994.3812

Background

The Montana Manufacturing Extension Center (MMEC) is an outreach center in the College of Engineering at Montana State University whose mission is to help manufacturers succeed. The Center carries out this mission by providing information, training, decision support, and implementation assistance to Montana's manufacturers. MMEC assists manufacturers in adopting new, more advanced manufacturing technology, techniques, and business practices.

One of the core services MMEC offers is LEAN Manufacturing which seeks to reduce waste of all kinds. Examples of waste include: time, materials, energy, scrap, and by-products. Less waste also means less air and water contaminates, and less solid waste going to landfills.

While manufacturing represents only 4% of Montana's total employment, it is an important industry segment accounting for more than 20% of Montana's economic base. According to the Bureau of Business and Economic Research at UM, there are over 3,500 manufacturing establishments (including approximately 1,700 self employed) in Montana directly employing close to 24,400 workers, and paying over $1.2 billion in annual wages. Manufacturing wages average over 26% more than the average Montana wage. Montana's manufacturers produce more than $8 billion in output annually.

Started in 1996, MMEC is a member of the US Department of Commerce National Institute of Standards and Technology Manufacturing Extension Partnership (NIST MEP). Since that time, MMEC services have resulted in nearly $110 million of increased sales and over 500 new jobs according to a stringent, independent survey conducted quarterly by the National Institute of Standards and Technology.

Measure	**1/1/96 – 3/31/08 MMEC inception to date**
Clients Served	582
Counties Served	46
Projects Conducted	1226
Jobs Created	507
Jobs Retained	671
Increased Sales	$109,251,200
Retained Sales	$65,632,150
Client Investment in Property, Plant/Equipment, Workforce, Information Systems, etc.	$51,966,093
Client Satisfaction	4.63 out of 5

In an effort to efficiently deliver services to Montana's manufacturers, MMEC partners with other Montana organizations and agencies including: Montana Department of Commerce; Montana Department of Agriculture; Montana Department of Labor and Industry; and Montana Department of Environmental Quality. For more information on the Montana Manufacturing Center visit http://www.mtmanufacturingcenter.com/

Comments on draft bill

The draft takes a different direction than the bill the Schweitzer Administration been working with us on. Because of that, we would not be able to support the current version of your draft bill. Our specific concerns are listed below:

- MMEC provides non-biased engineering consulting services to achieve our mission to "Help Manufacturers Succeed". We have never performed any sort of regulatory function because doing so would erode client trust. We are concerned that requiring us to work on a specific regulatory function with a regulatory agency would move us in that direction and put our ability to achieve our mission at risk.
- We do not have an adequate measurement system in place that would allow us to demonstrate results specific to your bill. Our existing measurement system is mandated by Congress and is the result of an independent survey of our clients. It measures increased and retained sales; increased and retained jobs; capital investment; and cost savings clients experienced as a result of our services.
- While we appreciate the suggestion of funding behind the requirement, $100,000 would not provide a full time engineer plus the travel and administrative expenses necessary to achieve and document the results.

Options for addressing value-added agriculture under SJR 13

May 1, 2008

Issue	Cost	Purpose
Increase number of food innovation centers	Depends on approach	1) Build on Montana's agricultural strength by providing incentives for community regional development corporations to devote a portion of funding to value-added agriculture, for example by lowering matching funds needed in proportion to CRDC funding of value-added agricultural production or programs or changing the matching fund requirements for refrigerator trucks or mobile equipment owned by value-added agriculture cooperatives. 2) Enhance use of Growth Through Agriculture programs by requiring certain ratio of funding to be spent on food innovation centers.
Encourage in-state collaboration for value-added agricultural production	Depends on approach, could include tax credits	1) Add to purposes of Big Sky Economic Development Program (90-1-202) to include the development of value-added agricultural production and expand economic development organization (90-1-201) to mean a cooperative intended to develop value-added agriculture. The priorities for funding under 90-1-204 could also be changed to recognize not just industrial but value-added agricultural production. 2) Tax credits for in-state companies that collaborate to add value
Increase funding for meat inspector	$120,000 - or the cost of an additional meat inspector/operating expenses	1) Local production and use requires local inspection.
Increase vocational technical college budgets to respond to local value-added agricultural production needs	To be estimated	1) Value-added agricultural producers expressed concern about lack of a trained work force in various elements of production. Some of these programs be short-term at one college but could rotate at vo-tech colleges around the state. The state may need to help with equipment purchases for training.
Other?		

SENATE JOINT RESOLUTION NO. 13

INTRODUCED BY SMITH, STEINBEISSER, BALES, L. JONES, STAHL, REINHART

A JOINT RESOLUTION OF THE SENATE AND THE HOUSE OF REPRESENTATIVES OF THE STATE OF MONTANA REQUESTING AN INTERIM STUDY TO EVALUATE METHODS AND RECOMMEND WAYS TO ADD VALUE TO MONTANA AGRICULTURAL PRODUCTS THROUGH REDEVELOPMENT OF A FOOD PROCESSING INDUSTRY; AND REQUIRING THAT THE FINAL RESULTS OF THE STUDY BE REPORTED TO THE 61ST LEGISLATURE.

WHEREAS, most of the $3 billion that Montanans spend on food each year goes to out-of-state companies; and

WHEREAS, the lack of a food processing infrastructure is a primary barrier inhibiting the ability of farmers and ranchers to serve in-state markets; and

WHEREAS, Montana's neighboring states add as much as eight to nine times more value to their agricultural products than Montana; and

WHEREAS, the food processing industry was Montana's number one employer through the 1940s, but today the Montana food processing industry is negligible; and

WHEREAS, Montana farmers, ranchers, small business entrepreneurs, and community economies would benefit from redevelopment of a food processing industry; and

WHEREAS, Montana's climate and soils can support production of a much greater diversity of agricultural and food products than are currently produced; and

WHEREAS, value-added enterprises owned by Montanans retain more of the value that is added to agricultural products in Montana communities; and

WHEREAS, producing food for local markets can reconnect Montana's rural and urban economies; and

WHEREAS, dependence on bulk raw commodity export markets diminishes the viability of Montana's rural economies and family farms and ranches; and

WHEREAS, food production on a family or community scale can enhance stewardship of Montana's natural and human resources; and

WHEREAS, value-added food production can contribute to the economic development goals of many communities.

NOW, THEREFORE, BE IT RESOLVED BY THE SENATE AND THE HOUSE OF REPRESENTATIVES OF THE STATE OF MONTANA:

That the Legislative Council be requested to designate an appropriate interim study committee or statutory committee, pursuant to section 5-5-217, MCA, or direct sufficient staff resources to:

(1) identify and compile statistics on model programs and policies that have been effective in supporting the development of value-added food enterprises and a strong entrepreneurial culture within the food and agriculture sectors;

(2) when possible, include a summary of the economic, social, and environmental impacts of each of these model programs and policies;

(3) identify the barriers to value-added food production in Montana;

(4) using the findings, recommend public and private programs and policies appropriate to Montana that:

(a) support value-added food production that keeps money circulating in Montana's communities;

(b) sustain the state's natural resources; and

(c) encourage fair treatment of participants at each step in the food value chain, from field to table; and

(5) determine methods used by other states with geography similar to Montana to add more value to raw agricultural products.

BE IT FURTHER RESOLVED, that the study consider input from:

(1) producers of livestock and crops;

(2) value-added meat processors;

(3) value-added nonmeat food processors;

(4) public and private economic developers;

(5) nonprofit, community-based food system advocates;

(6) Montana State University-Bozeman agriculture extension agents;

(7) Montana State University-Bozeman extension nutritionists;

(8) University of Montana-Missoula food system researchers;

(9) Agriculture Development Division staff at the Department of Agriculture;

(10) Business Resources Division staff at the Department of Commerce;

(11) food distributors and wholesalers;

(12) state legislators;

(13) the Governor's Office of Economic Development; ~~and~~

(14) the food and consumer safety section staff of the Department of Public Health and Human Services;

AND

(15) THE DEPARTMENT OF LIVESTOCK.

BE IT FURTHER RESOLVED, that if the study is assigned to staff, any findings or conclusions be presented to and reviewed by an appropriate committee designated by the Legislative Council.

BE IT FURTHER RESOLVED, that all aspects of the study, including presentation and review requirements, be concluded prior to September 15, 2008.

BE IT FURTHER RESOLVED, that the final results of the study, including any findings, conclusions, comments, or recommendations of the committee, be reported to the 61st Legislature.

- END -

Comments from Department of Agriculture
Provided by Perri Walborn, Bureau Chief Agriculture Marketing and Business Development
406.444.2402

AFW-11 Promote Local Food and Fiber

1. Legislation to eliminate sunset on funding (through Coal Severance) for Growth through Agriculture program and Montana Cooperative Development Centers.
2. Receive a report on potential legislation being pursued by the Economic Affairs Interim Committee concerning S.J. 13, a study of methods and recommendations to add value to Montana agricultural products through redevelopment of a food processing industry.
3. Legislation to provide tax incentives or tax credits to use Montana raw materials for production of food in Montana.
4. Send a letter to the Commissioner of Higher Education encouraging Montana universities to track, as economically as is feasible, the amount of locally grown food produced and consumed in Montana.

Comments on Recommendation #3:
Such legislation should evaluate whether creating credits that are earned only if Montana agricultural products are processed within state boundaries is the single best option. Incentives for the food processing industry should not be too restrictive and/or interfere with the process of making sound business decisions. One should be reminded that even if Montana agricultural products are not processed, jobs and markets are created in a food processing enterprise. When markets are created, farmers can choose to respond to market signals. A food processing industry cannot be established without a dependable and affordable supply – and farm production will not change without an established market. The food processing must come first and any incentives that are implemented should be complimentary to such activities.

ENVIRONMENTAL QUALITY COUNCIL

PO BOX 201704
HELENA, MONTANA 59620-1704
(406) 444-3742

5/20/2008

Commissioner of Higher Education Sheila Stearns
Montana University System
PO Box 203201
Helena, MT 59620-3201

Dear Commissioner Stearns,

On behalf of the Legislative Environmental Quality Council (EQC), I am writing to encourage your office and the Montana University System to assist the Legislature in its effort to promote the conservation of our state's resources. As part of the EQC's Climate Change Study, the Council has identified two areas in which MUS programs and research could be especially useful: tracking the production and consumption of locally grown foods and advancing biomass technologies.

The EQC supports increased use of locally grown foods as an economic benefit to the state and an opportunity to reduce costs and emissions associated with the manufacturing and transportation of our food supply. The EQC is asking MUS for help developing a formal tracking system of locally grown foods. By doing so, the EQC hopes to better understand where and how local foods are most used, identify efficiencies within that system, and identify where improvements are needed to encourage greater use of such products.

The EQC also supports increased use of biomass technologies as an alternative energy source and encourages MUS to continue its existing research and programs in this area. The EQC requests a report from MUS in the next biennium regarding these activities and any recommendations about the feasibility of the collection, processing, transportation, storage, and distribution of forestry and agricultural residues. The EQC would also appreciate recommendations on the development and expansion of markets for biomass materials, as a way to reduce our use of fossil fuels.

Commissioner Stearns, the EQC appreciates the time and attention you and the MUS staff give these matters. We look forward to working with you in the coming months. Please let me know if I, or the EQC staff, can be of assistance.

Sincerely,

David Wanzenried, Chairman

SENATE BILL NO. 210

INTRODUCED BY LASLOVICH, BRUEGGEMAN, ESSMANN, GEBHARDT, HARRINGTON, KAUFMANN LEWIS, LIND, SMITH, STEINBEISSER, NOONAN

A BILL FOR AN ACT ENTITLED: "AN ACT ~~INCREASING THE TAX DEDUCTION AVAILABLE TO TAXPAYERS FOR ENERGY-CONSERVATION INVESTMENTS;~~ INCREASING THE INDIVIDUAL INCOME TAX CREDIT FOR ENERGY-CONSERVING EXPENDITURES; PROVIDING A TAX CREDIT FOR ~~SMALL-BUSINESS CORPORATIONS~~ LIMITED LIABILITY PARTNERSHIPS, S. CORPORATIONS, OR OTHER DISREGARDED ENTITIES AND FOR TAXPAYERS WITH ~~A FAMILY INCOME OF LESS THAN OR EQUAL TO 150 PERCENT OF THE FEDERAL POVERTY LEVEL~~ CERTAIN INCOME LEVELS; PROVIDING A ~~3-YEAR CARRYFORWARD~~ REFUND FOR UNUSED ENERGY-CONSERVING EXPENDITURE TAX CREDITS; AMENDING ~~SECTIONS 15-32-103 AND~~ SECTION 15-32-109, MCA; AND PROVIDING AN IMMEDIATE EFFECTIVE DATE ~~AND~~, A RETROACTIVE APPLICABILITY DATE, AND A TERMINATION DATE."

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF MONTANA:

~~**Section 1.** Section 15-32-103, MCA, is amended to read:~~

~~**"15-32-103. Deduction for energy-conserving investments.** (1) In addition to all other deductions from gross corporate income allowed in computing net income under chapter 31, part 1, a taxpayer may deduct a portion of his the taxpayer's expenditure for a capital investment in a building for an energy conservation purpose, in accordance with the following schedule:~~

~~If the installation or investment is made in a residential building:~~	~~If the installation or investment is made in a building not used as a residence:~~
~~100% of first $1,000 expended~~	~~100% of first $2,000 expended~~
~~75% of next $1,000 expended~~	~~75% of next $2,000 expended~~
~~50% of next $1,000 expended~~	~~50% of next $2,000 expended~~
~~20% of next $1,000 expended~~	~~20% of next $2,000 expended~~
~~10% of next $1,000 expended~~	~~10% of next $2,000 expended~~

~~(2) This tax treatment is subject to approval of the department, as provided in 15-32-106, and may not be claimed for so much the portion of the expenditure and capital investment as that is financed by a state,~~

~~federal, or private grant for energy conservation."~~

Section 1. Section 15-32-109, MCA, is amended to read:

"15-32-109. Credit for energy-conserving expenditures. (1) Subject to the restrictions of ~~subsection (2)~~ subsections (4) and (5), a resident individual taxpayer may take a credit against the taxpayer's tax liability under chapter 30 for ~~25%~~ ~~75%~~ 25% of the taxpayer's expenditure for a capital investment in the physical attributes of a building or the installation of a water, lighting, ~~space~~ heating, or cooling system ~~or of major appliances~~ in the building~~, so~~ as long as ~~either type of investment is~~ the investments are for an energy conservation purpose, in an amount not to exceed ~~$500~~ ~~$5,000~~ $800.

(2) (A) Subject to the restrictions of subsections (4) and (5), a resident individual taxpayer with a family income of less than or equal to ~~150% of the federal poverty level~~ THE AMOUNT ESTABLISHED IN SUBSECTION (2)(B) may take a credit against the taxpayer's tax liability under chapter 30 for ~~100%~~ 25% of the taxpayer's expenditure for a capital investment in the physical attributes of a building or the installation of a water, lighting, ~~space~~ heating, or cooling system ~~or of major appliances~~ in the building as long as the investments are for an energy conservation purpose, in an amount not to exceed ~~$5,000~~ $800.

(B) TO BE ELIGIBLE FOR THE CREDIT ALLOWED BY THIS SUBSECTION (2), A SINGLE TAXPAYER MAY NOT HAVE A MONTANA ADJUSTED GROSS INCOME IN EXCESS OF $11,280 AND MARRIED COUPLES FILING JOINTLY OR SEPARATELY ON THE SAME FORM MAY NOT HAVE A MONTANA ADJUSTED GROSS INCOME IN EXCESS OF $14,590. THE DEPARTMENT, BY NOVEMBER 1, OF EACH YEAR, SHALL MULTIPLY THE INCOME AMOUNTS IN THIS SUBSECTION (2)(B) BY THE INFLATION FACTOR FOR THAT YEAR AND ROUND THE PRODUCT TO THE NEAREST $10. THE RESULTING ADJUSTED INCOME IS EFFECTIVE FOR THAT TAX YEAR AND MUST BE USED IN DETERMINING THE ELIGIBILITY FOR THE CREDIT ALLOWED BY THIS SUBSECTION (2).

(3) Subject to the restrictions of subsections (4) and (5), a ~~small business corporation, as defined in 15-30-1101,~~ LIMITED LIABILITY PARTNERSHIP, S. CORPORATION, OR OTHER DISREGARDED ENTITY may take a credit against the taxpayer's tax liability under chapter 30 for ~~75%~~ 25% of the taxpayer's expenditure for a capital investment in the physical attributes of a RESIDENTIAL RENTAL building or the installation of a water, lighting, refrigeration, ~~space~~ heating, or cooling system ~~or of major appliances~~ in the building as long as the investments are for an energy conservation purpose, in an amount not to exceed ~~$10,000~~ $800.

(4) A taxpayer's expenditure may ~~not~~ be claimed for credit under ~~more than one status~~ SUBSECTION (1), (2), OR (3) BUT MAY BE CLAIMED UNDER ONLY ONE OF THOSE SUBSECTIONS.

~~(2)~~(5) The ~~credit~~ credits under ~~subsection~~ subsections (1):

~~(a) may not exceed the taxpayer's tax liability; and~~

~~(b) is~~ through (3) are subject to the provisions of 15-32-104.

(6) THE CREDITS UNDER SUBSECTIONS (1) AND (3) MAY NOT EXCEED THE TAXPAYER'S TAX LIABILITY. If the amount of the tax credit UNDER SUBSECTION (2) exceeds the taxpayer's income tax liability for the tax year, the amount ~~that exceeds the tax liability may be carried forward for taxes imposed in the next 3 succeeding tax years.~~ OF THE EXCESS MUST BE REFUNDED TO THE TAXPAYER. THE CREDIT MAY BE CLAIMED EVEN IF THE CLAIMANT HAS NO TAXABLE INCOME.

(7) IF THE TAXPAYER IS AN S. CORPORATION, THE SHAREHOLDERS MAY CLAIM A PRO RATA SHARE OF THE TAX CREDIT. IF THE TAXPAYER IS A PARTNERSHIP OR DISREGARDED ENTITY, THE CREDIT MAY BE CLAIMED BY THE PARTNERS OR MEMBERS IN THE SAME PROPORTION USED TO REPORT THE PARTNERSHIP'S OR ENTITY'S INCOME OR LOSS FOR MONTANA INCOME TAX PURPOSES."

NEW SECTION. **Section 2. Effective date.** [This act] is effective on passage and approval.

NEW SECTION. **Section 3. Retroactive applicability.** [This act] applies retroactively, within the meaning of 1-2-109, to tax years beginning after December 31, 2006.

NEW SECTION. **SECTION 4. TERMINATION.** [THIS ACT] TERMINATES JANUARY 1, 2010.

- END -

GOVERNOR'S OFFICE OF BUDGET AND PROGRAM PLANNING

Fiscal Note 2009 Biennium

Bill #	SB0210	Title:	Revise energy conservation and weatherization laws
Primary Sponsor:	Laslovich, Jesse	Status:	As Amended in Senate Committee

☐ Significant Local Gov Impact ☑ Needs to be included in HB 2 ☐ Technical Concerns

☐ Included in the Executive Budget ☐ Significant Long-Term Impacts ☐ Dedicated Revenue Form Attached

FISCAL SUMMARY

	FY 2008 Difference	FY 2009 Difference	FY 2010 Difference	FY 2011 Difference
Expenditures:				
General Fund	$39,062	$33,610	$34,450	$0
Revenue:				
General Fund	($2,860,736)	($3,181,996)	($3,503,378)	$0
Net Impact-General Fund Balance	($2,899,798)	($3,215,606)	($3,537,828)	$0

Description of fiscal impact:

This bill amends 15-32-109, MCA, which provides a credit for energy conservation investments in a building. These amendments would be effective beginning with tax year 2007 and terminating at the end of 2010. For tax years 2007 through 2010, this bill

- increases the limit on the credit from $500 to $800,
- includes lighting in the investments that are eligible for the credit,
- makes the credit refundable for single taxpayers with adjusted gross income of $11,280 or less and married taxpayers with adjusted gross income of $14,590 or less, adjusted annually for inflation, and
- allows pass-through entities to claim the credit for investments in a residential rental building.

The increased credits will reduce general fund revenue by $2.9 million in FY 2008 increasing to $3.5 million in FY 2010. The legislation terminates January 1, 2010.

FISCAL ANALYSIS

Assumptions:

1. Under current law, taxpayers are allowed a credit of 25% of eligible expenditures, with the credit limited to $500. (A married couple counts as two taxpayers whether they file separate returns or a joint return.)

Thus, taxpayers with eligible expenditures of $2,000 or less are unaffected by the current cap, while taxpayers with eligible expenditures of more than $2,000 are limited to a credit of $500.

2. On 2005 returns, 4,692 taxpayers claimed $500 credits. Total credits claimed by capped taxpayers were $2,346,000.
3. Based on the distribution of credits less than $500, it is assumed that each $50 increase in the cap would reduce the number of capped taxpayers 10%. It is also assumed that the average credit claimed by taxpayers who would be removed from the cap by increasing it by $50 is $25 more than the original cap. For example, increasing the cap from $500 to $550 would reduce the number of capped taxpayers from 4,692 to 4,223, and the average credit claimed by the 469 taxpayers who are capped at $500 but not at $550 would be $525.
4. With a cap of $800, 1,607 taxpayers would claim credits equal to the cap. They would claim a total of $1,285,662 in credits. There would be 3,085 taxpayers who would be capped at $500 but not at $800. They would claim a total of $2,104,615 in credits (an average of $682). Total credits claimed by taxpayers who are capped under current law would be $3,390,277, an increase of $1,044,277.
5. On 2005 returns, taxpayers who met the income requirements to have the credit refunded under this bill claimed credits that were $226,365 more than their tax liability. Under this bill, that amount would have been refunded to taxpayers.
6. There are 113,810 rental units in Montana (American Community Survey). At least half of these units are owned by individuals, who can claim the credit for investments under current law. Even with a tax credit covering part of the costs, a landlord has an incentive to invest in energy efficiency only if the landlord can recover the costs through lower energy bills or higher rents. Landlords pay for all utilities in less than 20% of units and pay for some utilities in a higher, but unknown percent of units. For this fiscal note, it is assumed that 25% of rental units are owned by pass-through entities that pay for enough of the unit's heat and other utilities to have an incentive to invest in energy conservation.
7. In 2005, credits were claimed by 5.3% of homeowners. Assuming that pass-through entity landlords will have the same participation rate on units where the landlord pays some of the utilities, they would have claimed credits on 1,508 units in 2005 (113,810 x 25% x 5.3%). Assuming that the maximum credit would be claimed for each, credits would have been $1,206,400 (1,508 x $800).
8. If this bill had been in effect in 2005, credits would have been $2,477,042 higher ($1,044,277 + $226,365 + $1,206,400).
9. Use of the energy conservation credit has grown rapidly in recent years and is expected to continue to grow. This credit is not forecast separately in HJR 2, but it accounts for a large part of a group of credits that are forecast to grow by 15.49% from 2005 to 2007, 11.23% in 2008, and 10.10% in 2009 and 2010. Assuming that the increases due to this bill will grow at the same rates, this bill would increase credits by $2,860,736 in 2007 ($2,477,042 x 115.49%), by $3,181,996 in 2008 ($2,860,736 x 111.23%), and by $3,503,378 in 2009 ($3,181,996 x 110.10%).
10. Credits will be claimed on income tax returns filed in the spring following each tax year. The increases in credits for 2007 through 2009 will result in the same reductions in revenue for FY 2008 through FY 2010.
11. Department of Revenue auditors adjust approximately 25% of the claims for this credit that they examine. With the growth in use of this credit since it was last amended and the growth expected because of this bill, the department is not able to audit enough of the returns to ensure high taxpayer compliance with the law. To ensure adequate auditing with the increased credits, the department would need an additional half-time tax examiner with annual salary of $18,086 and annual benefits of $9,578. Total personal services costs would be $27,664 per year, increasing by 2.5% in FY 2010. Equipment costs to set up a new employee would be $5,900 in FY 2008. Operating costs would be $5,498 in FY 2008 and $5,946 per year in FY 2009, increasing by 2.5% in FY 2010. Total additional costs would be $39,062 in FY 2008, $33,610 in FY 2009, and $34,450 in FY 2010.

	FY 2008 Difference	FY 2009 Difference	FY 2010 Difference	FY 2011 Difference
Fiscal Impact:				
FTE	0.50	0.50	0.50	0.00
Expenditures:				
Personal Services	$27,664	$27,664	$28,356	$0
Operating Expenses	$5,498	$5,946	$6,095	$0
Equipment	$5,900	$0	$0	$0
TOTAL Expenditures	$39,062	$33,610	$34,450	$0
Funding of Expenditures:				
General Fund (01)	$39,062	$33,610	$34,450	$0
TOTAL Funding of Exp.	$39,062	$33,610	$34,450	$0
Revenues:				
General Fund (01)	($2,860,736)	($3,181,996)	($3,503,378)	$0
TOTAL Revenues	($2,860,736)	($3,181,996)	($3,503,378)	$0
Net Impact to Fund Balance (Revenue minus Funding of Expenditures):				
General Fund (01)	($2,899,798)	($3,215,606)	($3,537,828)	$0

Long-Range Impacts:

1. This bill sunsets on January 1, 2010 and will have no impacts after FY 2010.

Sponsor's Initials	*Date*	*Budget Director's Initials*	*Date*

Suggested Biomass Energy Incentives in Montana

Provided by Angela Farr, DNRC Fuels for Schools Coordinator
406.542.4239

1. Alternative Energy Investment Tax Credit revisions: Montana's Alternative Energy Systems 35% investment tax credit applies only to the tax liability (i.e., income) created by the investment in the renewable energy system. For example, if a mill installs a system for electrical generation from biomass, and sells a portion of that energy, only the income from selling the energy would be subject to the 35% tax credit on the investment in the renewable energy generation system. In most cases, this is not much of an incentive, because biomass energy investments do not generate high profits or cash flow. Many mills in the state are interested in developing capacity for electrical generation from biomass, primarily for their own energy needs, and cannot take full advantage of the current investment tax credit because there would be little or no taxable income generated by the investment.

In contrast, Oregon offers a 50% investment tax credit for renewable energy installations, which is given over 5 years on a 10% per year basis. Importantly, it can be applied to all income by a taxpayer on a consolidated return, not just the income generated by the investment. In addition, entities installing systems that are not able to take advantage of the credit (due to nonprofit status or lack of tax liability) can sell that credit at a discount to other taxpayers. In some cases, the capacity for monetizing this tax credit has been used as equity for borrowing the capital for the original investment. This makes the credit a very powerful tool. Montana's 35% would not necessarily need to be modified to 50%, but allowing the credit to apply to all income, or to be sold at a discount, would make the credit much more powerful.

2. Income tax credit for removing and processing biomass for energy: Oregon's last legislature (HB2210) enacted a $10 per green ton state income tax credit for the removal and use for energy of material directly from the woods. The credit is granted to the entity that removes and processes the material into a form usable for energy. Similar to the renewable energy investment tax credit, this credit can be sold if the recipient is not able to use it.

At the Federal level, a $20 per ton transportation subsidy for biomass fuel was authorized in the 2005 Energy Policy Act, but has never been funded.

Montana could enact a similar tax credit for removing and processing biomass to be used for heat or energy. Providing such a credit to the entities who remove the biomass, rather than to end users, would be more effective at getting more material used rather than burned in place, wasting its heat and energy.

3. Renewable Portfolio Standard modifications: Montana's Renewable Portfolio Standard is relatively weak due to the cost cap provisions in MCA 69-3-2007. For public utilities that have restructured pursuant to Title 69 ch. 8, (i.e., Northwestern Energy), the

renewable electricity must be cost-competitive with other electricity suppliers in order to make the purchase of renewables obligatory. Montana's rural electric cooperatives are not covered by the renewable portfolio standard. Strengthening the RPS for electrical generation by altering the cost caps is recommended (recognizing that some cost caps are probably needed). Investigating the impact of applying the RPS to rural electric cooperatives is also recommended. Several other states that include rural electric coops in their RPSs would be good sources for this information (examples include Arizona, Colorado, and New Mexico).

At least one state has mandated that a percentage of the heat used in that state be derived from renewable fuels, in addition to the RPS for electricity. Heat is the most valuable and efficiently derived form of energy from biomass, and an RPS for heat would be beneficial to expanding biomass utilization to replace fossil fuels and reduce greenhouse gas emissions.

Information provided by DEQ
State LEED Experience

WASHINGTON

I spoke with Stuart Simpson, Sustainable Building Advisor, Washington Department of General Administration about their LEED experience.

State law now requires public buildings that receive funding from the state to be designed and certified to at least the LEED Silver standard. The law became effective in 2005 and applies to buildings larger than 5,000 square feet. Renovation projects with construction costs greater than 50 percent of the assessed value of the building or facility also require LEED Silver certification.

The Department of General Administration (GA) has worked with 60 construction projects since the LEED Silver certification requirement law was passed in 2005. The first new construction projects impacted by the law will be completed in late 2007 and 2008. Under Washington law the GA is able to grant exceptions to the LEED requirements in some special cases where LEED certification is not practical or justified. Four exceptions were granted to agencies with unique building needs that did not justify meeting LEED standards. These projects included a greenhouse, car ferry maintenance facility and several maintenance shops.

Washington has found that increased costs for construction and design fees for LEED certification has ranged from 1/2% to 3 1/2% of project costs.

In Washington State there is also requirement to perform life cycle cost analyses on new or major remodels of all publicly owned or leased facilities that are 25,000 square feet or more. This requirement is based in law: Revised Code of Washington (RCW) 39.35
and the Washington Administrative Code (WAC) 180-27-075.

OREGON

Oregon state government does not have a LEED certification requirement at the current time. However, Oregon does offer business tax credits for sustainable buildings that meet LEED certification for new or existing buildings.

To be eligible for the credits Oregon requires a building must achieve at least a minimum of a silver rating. Oregon also requires LEED projects to achieve additional energy performance improvements above the minimum or required LEED energy criteria. Projects must attain at least two points under the Energy and Atmosphere Credit section for exceeding energy code requirements and an another point for additional commissioning efforts. These additional requirements for energy performance result in new buildings being designed to exceed ASHRAE Standard 90.1-2004 by 14 percent. In the case of an existing building renovation the energy performance of the facility must be improved at least 7 percent to earn 2 additional energy points.

COLORADO

Senate Bill 07-051 requires state agencies or departments embarking upon a substantial renovation, design, or construction of a state-assisted facility of more than 5,000 square feet to pursue U.S. Green Building Council LEED Gold certification, as long as construction costs can be recouped from decreased operational costs within 15 years.

Senate Bill 07-051 requires the Colorado Department of Personnel and Administration to consult with the Colorado Commission on Higher Education to adopt a "high performance standard certification program" for state building projects.

The program must:
• include quantifiable and verifiable standards;
• reduce long-term operating costs (e.g., energy, water consumption);
• recoup increased initial costs within 15 years through lower operating costs;
• improve indoor environmental quality;
• encourage the use of local building products and materials; and
• comply with the federal standards for historic properties.
The bill applies to facilities that:
• are substantially renovated, designed, or constructed with state moneys;
• are at least 5,000 gross square feet;
• include heating, ventilation, or air conditioning systems; and
• have not entered a design phase prior to January 1, 2008.

The bill affects any renovation that exceeds 25 percent of the property's value. SB 07-051 exempts certain projects, including:
• historic buildings;
• projects that cannot reduce operating costs enough to recoup the initial costs within 15 years;
• projects that substantially increase the cost of the building; and
• projects with extenuating circumstances.

Further, the bill does not apply to higher education facilities constructed with student fees, buildings financed by the Colorado Housing and Finance Authority, or local government buildings financed with severance tax revenue. If certification will increase a project's initial building cost by more than 5 percent, the Capital Development Committee (CDC) must review the cost before approving the project. The department is required to report annually to the CDC regarding the high performance standard certification program.

MASSACHUSETTS
A Massachusetts executive order in 2007 requires state agencies undertaking new construction projects to build to LEED Silver level or above.

ARIZONA
Arizona Executive Order 2005-05 requires new state-funded buildings to meet at least the LEED Silver level standard as a minimum requirement.

NEW MEXICO
New Mexico Executive Order 2006-001 requires all new state agency buildings over 15,000 square feet and over 50kW peak electrical demand to achieve at least a LEED Silver level rating.

CALIFORNIA
On December 14, 2005, California's governor signed Executive Order S-20-04, creating a Green Building Action Plan to improve the energy performance of all state buildings and reduce grid-based energy usage in state buildings by 20% of 2003 levels by 2015. Under this order, all new and renovated buildings must be rated to at least the "Silver" level of LEED* standards. EO S-20-04 also requires agencies to seek out office space leases in buildings with the ENERGY STAR rating for spaces of 5,000 square feet or more, to identify the most appropriate ways of achieving energy efficiency in their buildings, and to purchase ENERGY STAR products when cost effective.

CONNECTICUT

Public Act No. 06-187, enacted in 2006, required the Connecticut Office of Policy and Management, in consultation with the commissioner of public works, the commissioner of environmental protection and the commissioner of public safety, to adopt building construction regulations for state facilities. The construction standards must be consistent with or exceed the U.S. Green Building Council's LEED Silver rating for new commercial construction and major renovation projects, or an equivalent standard. Certain state building projects were originally exempt from the standard, but HB 7432 of 2007 removed those exemptions. State building projects that now must comply with the standard include:

- Any new construction of a state facility with a projected cost $5 million or more, of which $2 million or more is state funding, and is approved and funded on or after January 1, 2008.
- Renovation of a state facility that is projected to cost $2 million or more, of which $2 million or more is state funding, approved and funded on or after January 1, 2008.
- New construction of a facility that is projected to cost $5 million or more, of which $2 million or more is state funding, and is authorized by the Connecticut General Assembly on or after January 1, 2009.
- Renovation of a public school facility that is projected to cost $2 million or more, of which $2 million or more is state funding, and is authorized by the General Assembly on or after January 1, 2009.

FLORIDA

Executive Order 07-126, signed in July 2007, furthered the cause of sustainability in Florida by making new requirements and goals to decrease greenhouse gas emissions across all state agencies and departments under the direction of the Governor, and to increase the energy efficiency of state buildings.

To achieve this goal, the Department of Management Services has been directed to adopt the US Green Building Council's Leadership in Energy and Environmental Design for New Construction (LEED*-NC) for all new buildings, and to strive for Platinum Level certification. Further, all state agencies and departments under the direction of the Governor may not enter into new leasing agreements for office space that does not meet Energy Star building standards.

MICHIGAN

Regarding state buildings, all capital-outlay projects over $1 million for buildings occupied by state agencies, departments, universities, and community colleges are required to be designed and constructed in accordance with the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) rating system. The new executive directive also requires the DMB to ensure that all new construction and renovations of state buildings, including state-leased buildings, strive to score at the LEED Platinum level on the Existing Building, New Construction, and Commercial Interiors scorecards when attainable. This is an expansion of the old policy which only required the lowest level of LEED certification; platinum is the highest level. The 2007 directive also added numerous other requirements relating to departmental energy use and carbon tracking, recycling, agency coordination, alternative fuels, and alternative vehicles.

NEVADA

Effective July 1st, 2007, each occupied public building whose construction will be sponsored or financed by the state must, when completed, meet the requirements to be certified at or meet the equivalent of the base level or higher in accordance with the LEED System, or an equivalent standard. The legislation also

requires that during each biennium, at least two occupied public buildings whose construction will be sponsored or financed by the State must be designated as demonstration projects that meet the requirements to be certified at or meet the equivalent of the LEED "Silver" level or higher.

Finally, before initiating the construction or renovation of any occupied public building which is larger than 20,000 square feet, Nevada state agencies must complete an analysis of the cost to construct, operate, and maintain the building over its expected lifetime. The analysis should identify energy conservation measures with payback of 10 years or less and renewable energy measures that could be incorporated into construction or renovation (such as passive and active solar, wind, and geothermal). The agency must then consider the results of this analysis in determining the design of the building. Renewable energy should be incorporated into plans when in the best interest of the state.

LEED Cost Issues
Additional construction costs and design fees for meeting LEED certification are not excessive. Integrating sustainable design into the project during the development and design phases can significantly reduce the additional costs for LEED certification. Overall costs for construction projects could increase significantly if sustainable design elements are consider late in the building design phase and projects have to go through a redesign to meet LEED standards. However, experience in the federal government and states has shown that additional costs can range from zero to seven percent for a wide variety of building types.

Cost Study Examples Attached

The Costs and Financial Benefits of Green Buildings -
A Report to California's Sustainable Building Task Force
October 2003

A nation wide review of 33 green buildings showed a construction premium for meeting LEED certification ranged from zero percent to 7.5 percent.

GSA LEED Cost Study
U.S General Services Administration.
October 2004

This study was done to estimate the cost to develop green federal facilities for the General Services Administration. The detailed study examined the extra costs to build two typical federal building types, a new mid-size federal courthouse and a mid-size federal office building renovation. The construction cost impacts for Silver certification ranged from a low of negative .03 percent to a high of 4.4 percent more for the new federal courthouse example. Silver certification for the office building renovation example ranged from 3.1 percent to 4.2 percent.