Additional public comments

The following comments were sent to staff in addition to the surveys. The comments were submitted separately from the individual surveys. Some were sent anonymously through the mail and are not signed and could not be sourced.

I completely agree with Bob Decker's opinion editorial in the February 28 Missoulian. The Climate Change Survey is simply not ready for public input. One would have to be much better informed on the options to vote intelligently. But most important, the survey totally ignores what is the most important issue regarding climate change. That is, that the very real concern on climate change, at least as far as humans are responsible, is fundamentally caused by overpopulation. Our planet is overcrowded with the present population of six billion people and in no way can cope with a projected population of nine billion later this century. This should and must be a matter of immediate and urgent concern and action at the individual, local, state, federal and worldwide levels. Ignore overpopulation and forget a future, livable, sustainable world. Bob Ballou

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I just took the survey on climate change, and I have a general comment to make. No costs were included for any of the measures. Cost-benefit will be a major factor in deciding which measures to implement, so the lack of cost information makes it difficult to decide which measures are most important/feasible. As I believe we need to take immediate and serious actions, I support any and all measures towards that end - but to really decide which are the most important to take action on, cost-benefit is needed. Kathleen Ralph

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I have completed the survey on Montana Climate Change Action Plan from the Environmental Quality Council. I found no email address for that department, but found yours under the "contact us" list. Have you done any calculations how much all this is going to cost in increased taxes? I have listed many reasons below as to why this is all unnecessary. More and more credible scientists are speaking out about the falacy of the theory of global warming. I fail to see how this nation can endure such taxes and regulations on free enterprise that this plan requires.
According to reports from the U.S. National Oceanic and Atmospheric Administration (NOAA) that reveal that almost all the allegedly "lost" ice has come back. A NOAA report shows that ice levels which had shrunk from 5 million square miles in January 2007 to just 1.5 million square miles in October, are almost back to their original levels.
A Feb. 18 report in the London Daily Express showed that there is nearly a third more ice in Antarctica than usual, challenging the global warming crusaders and buttressing arguments of skeptics who deny that the world is undergoing global warming.
As winter roars in across the Northern Hemisphere, Mother Nature seems to have joined the ranks of the skeptics. As the Daily Express notes, scientists are saying the northern Hemisphere has endured its coldest winter in decades, adding that snow cover across the area is at its greatest since 1966. The newspaper cites the one exception — Western Europe , which had, until the weekend when temperatures plunged to as low as -10 C in some places, been basking in unseasonably warm weather.
Around the world, vast areas have been buried under some of the heaviest snowfalls in decades. Central and southern China , the United States , and Canada were hit hard by snowstorms. In China , snowfall was so heavy that over 100,000 houses collapsed under the weight of snow.
Jerusalem, Damascus , Amman , and northern Saudi Arabia report the heaviest falls in years and below-zero temperatures. In Afghanistan , snow and freezing weather killed 120 people. Even Baghdad had a snowstorm, the first in the memory of most residents.
AFP news reports icy temperatures have just swept through south China , stranding 180,000 people and leading to widespread power cuts just as the area was recovering from the worst weather in 50 years, the government said Monday. The latest cold snap has taken a severe toll in usually temperate Yunnan province, which has been struck by heavy snowfalls since Thursday, a government official from the provincial disaster relief office told AFP.
Twelve people have died there, state Xinhua news agency reported, and four remained missing as of Saturday.
An ongoing record-long spell of cold weather in Vietnam 's northern region, which started on Jan. 14, has killed nearly 60,000 cattle, mainly bull and buffalo calves, local press reported Monday. By Feb. 17, the spell had killed a total of 59,962 cattle in the region, including 7,349 in the Ha Giang province, 6,400 in Lao Cai, and 5,571 in Bac

Can province, said Hoang Kim Giao, director of the Animal Husbandry Department under the Vietnamese Ministry of Agriculture and Rural Development, according to the Pioneer newspaper.
In Britain the temperatures plunged to -10 C in central England , according to the Express, which reports that experts say that February could end up as one of the coldest in Britain in the past 10 years with the freezing night-time conditions expected to stay around a frigid -8 C until at least the middle of the week. And the BBC reports that a bus company's efforts to cut global warming emissions have led to services being disrupted by cold weather.
Meanwhile Athens News reports that a raging snow storm that blanketed most of Greece over the weekend and continued into the early morning hours on Monday, plunging the country into sub-zero temperatures. The agency reported that public transport buses were at a standstill on Monday in the wider Athens area, while ships remained in ports, public services remained closed, and schools and courthouses in the more severely-stricken prefectures were also closed.
Scores of villages, mainly on the island of Crete , and in the prefectures of Evia, Argolida, Arcadia , Lakonia, Viotia, and the Cyclades islands were snowed in.
More than 100 villages were snowed-in on the island of Crete and temperatures in Athens dropped to -6 C before dawn, while the coldest temperatures were recorded in Kozani, Grevena, Kastoria and Florina, where they plunged to -12 C.
If global warming gets any worse we'll all freeze to death. Shirley Rasmussen

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This survey, this solicitation, on a politically charged subject of nonexperts and many emotionally charged ideologues, on both sides, makes the usage of such responses, as you might receive, open for justifiable criticism that a political, nonscientific, solution will be the answer if enough MONEY is available. Leading a "climate change" parade provides a convenient excuse for government to grow its power and the bureaucracy with a stated purpose to analyze, propose, legislate and regulate the citizens at greater expense for their own good; additional taxes, fees and other euphemistic charges, not to mention fines and penalties, accruing to the state growing out of legislation, will be attached to the global warming debate so as to separate people from their money for political and unsound scientific purpose.

By asking the uneducated citizen for OPINIONS ("... what Montanans think ...") on "climate change" you, hopefully, create a beautiful global warming parade, marching for the greater good, that is, in fact, nothing more than a **clever** ruse to mask the subsequent thievery, separating the people from their hard-earned incomes. Dean Anderson

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I think we need to let the climate change do what ever it is going to do. To think that man's piddly works changes the climate is about as accurate as saying we came from apes. There certainly is not a consensus on this issue and I notice that it isn't discussed when the temperature is below normal.

This state needs to set aside Al Gore's mission as bogus and set aside any suggestions of support of his mission by the Governor or anyone else because it will just be costly to the citizens and for nothing.

I believe that my positions represents a majority of Montanan's and if the state decides that man caused "global warming" has any veracity then the people should be consulted in a voting situation. Dallas D. Erickson

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February 28, 2008

The Honorable David Wanzenried
Chair - Environmental Quality Council
903 Sky Drive
Missoula, MT 59804-3121

Re: MDU Resources Group, Inc., Response to Questions in EQC Survey on Climate Change

Dear Senator Wanzenried:

Thank you for the opportunity to provide comments to the Environmental Quality Council on the recommendations

listed in Montana's Climate Change Action Plan Final Report (Plan) completed by the Governor's Climate Change Advisory Committee. We applaud the EQC for its effort to obtain suggestions and input from citizens, businesses and industries of Montana on the important and complex issue of addressing climate change.

MDU Resources Group, Inc. (MDU) is a multi-dimensional enterprise comprised of regulated and non-regulated businesses. We provide value-added natural resource products and related services that are essential to energy and transportation infrastructure. Our enterprises in the state of Montana include:

1. Montana-Dakota Utilities Co.
2. Williston Basin Interstate Pipeline Co.
3. Fidelity Exploration and Production Co.
4. Bitter Creek Pipelines LLC
5. Knife River Corporation
6. MDU Construction Services Group

We wish to offer comment and discussion on several recommendations from the Plan that are listed in the survey:

ES-11 Methane and CO_2 Reduction in Oil and Gas Production

Since the intent of this recommendation is to minimize emissions of methane, the very product we produce and transport, MDU strongly supports the state's interest in minimizing or eliminating such emissions. Williston Basin Interstate Pipeline Company already participates in the EPA's STAR program, which is the heart of this recommendation. Through the program, companies that produce, transmit and distribute natural gas seek ways to reduce emissions of methane. Although Bitter Creek Pipelines and Fidelity Exploration & Production Company are not formal participants in the STAR program, they use best practices which in many respects follow the program.

RCII-1 Demand-Side Management (DSM)

MDU agrees it is important to promote and encourage demand-side management. In fact, the identification and acquisition of cost-effective DSM has been an on-going part of Montana-Dakota Utilities Co.'s (Montana-Dakota) Integrated Least Cost Planning since Montana's law was enacted in 1993. Montana-Dakota's planning process includes the provision of a 15 percent cost advantage to DSM. That 15 percent cost advantage was incorporated in the cost cap for renewables which applies to Montana-Dakota under Montana's 2005 Montana Renewable Power Production and Rural Economic Development Act. Under an aggressive DSM program, policies that "decouple" fixed cost recovery from the amount of energy sold will be important to assure proper cost recovery. That dialogue has already begun with the Public Service Commission.

ES-1 Expand Renewables Requirement to 25/25

MDU supports the goal of deploying renewable energy technology in its integrated system where it is cost efficient. Montana-Dakota has constructed the 19.5 MW Diamond Willow Wind Farm near Baker to respond to Montana's Renewable Portfolio Standard. It is important to recognize that Montana-Dakota's service territory is located outside of the Western Interconnect, in which most other Montana utilities are located. This creates limitations on the opportunity to meet demand by sharing generation resources with other Montana utilities. Also, Montana-Dakota's load in Montana represents roughly a quarter of its system requirements. Monthly peak demand on the Montana portion of the system varied last year from 74 MW to 114 MW. With Diamond Willow on line, Montana-Dakota will already have 175 MW of nameplate capacity on line within the state, and can adequately serve the needs of its customers with existing generation. A requirement to build additional renewable generation in excess of customer needs will not be in the economic best interest of these customers.

ES-8/9 Cap & Trade/Carbon Tax

MDU agrees with the Climate Change Advisory Committee that to be successful in reducing greenhouse gas emissions, a cap and trade program or carbon tax likely will have to be implemented at the federal level. Although a regional cap and trade program might be a possibility, as indicated in the report it would likely lead to inter-regional leakage and adverse regional economic impacts.

ES-5 Incentives for Carbon Capture & Sequestration/Reuse - Advanced Fossil Fuels Generation

MDU supports CCSR research, and developing standards and protocols for eminent domain for needed CO_2 pipelines, associated landowner protections and addressing long-term liability issues. Unfortunately, CCSR technology is not expected to be commercially deployable until at least the 2020 timeframe. Consequently, the timing of its availability, and the cost impact on customers and the regional economy, will be important considerations.

ES-10 Generation Performance Standard/GHG Offsets

MDU has the same concerns over a "facilities-based" standard as those it described in response to ES-5. Additionally in the case of a "load-based" standard for load-serving entities like utilities, Montana-Dakota is concerned about the lack of availability of hydro or nuclear resources similar to those available in California and Washington. Montana-Dakota agrees that offsets could be a viable mechanism, but is concerned about the actual availability of such offsets and their cost. It is also unclear how the limitation on financial commitments by "load serving entities" would apply to a utility such as Montana-Dakota that owns its own generation.

ES-4 Incentives and Barrier Removal for CHP/DG

MDU agrees that the development and use of clear interconnection rules is desirable. We agree with the cautionary note of the advisory committee that any net metering requirements must be carefully crafted to avoid creating ratepayer subsidies of combined heat and power facilities or distributed generation. In the development of mandatory long-term contracts at avoided cost rates, MDU urges the state to apply the lessons learned from its previous experience with PURPA-qualifying facilities on the former Montana Power system. It is important to set reasonable avoided cost rates to avoid imposing an undue cost burden on captive ratepayers.

TLU-5 Growth and Development Bundle

MDU agrees it makes sense to seek ways through transportation and land use changes to reduce vehicle trips and miles traveled. Options include state and/or local land use practices and policies that promote permitting of aggregate sources closer to markets being served to reduce truck haul distances. This has potential to produce significant reduction of GHG emissions and provide cost savings to consumers. Options could also encourage recycling of construction materials (asphalt, concrete, etc.) that result in GHG reductions through reduced fuel usage in mining/processing. The state of Montana could lead by example through DOT bid documents.

TLU-7/8 Heavy Duty Vehicle Emissions Standards/Retrofit Incentives and Idle Reduction

MDU supports efforts to reduce greenhouse gas and particulate matter emissions from heavy-duty vehicles. It's important to understand that retrofits for PM and NOx reduction may result in reduced fuel efficiency and more GHG emissions. EPA and California mandates for cleaner engines have focused on reduction in PM and NOx, not greenhouse gases. MDU supports the deployment of retrofits and new engine technology as replacements demand and economics dictate. Policymakers need to be cognizant that Montana operators can only adapt their fleet as manufacturers supply new technology, and that increased costs ultimately flow to the consumer. MDU strongly supports idle reduction programs and is voluntarily doing this through its Shut Down and Save program to reduce GHG emissions from unnecessary idling (truck idling = 14.7 lbs CO_2e per hour).

In conclusion, MDU appreciates the importance of addressing climate change, but we believe it is essential that regulations and mitigation measures recognize the limitations of existing technology and minimize adverse impacts to the regional economy. We look forward to working with the EQC and the State of Montana to achieve appropriate targets.

Sincerely,

s/ Terry D. Hildestad

Terry D. Hildestad

cc: EQC staff

To the EQC :

In regards to climate change and the solutions for such---I would recommend digging out the winter garb and facing the (cyclamatic) changes. This is from a product of the "dirty thirties" who has memories of feeding cattle with a team and sleigh using a "hickory-handled" hay loader, better known as a pitch fork...

Many of us who still manage water close to the snow banks as it trickles out, are looking forward to a good "old fashioned" winter. The headwaters of the upper Big Hole is on the way to mitigate recent drought years evident by a NRCS snotel site at Darkhorse Lake. Recent readings show 89" of snow with a 23% moisture reading.

Stay warm; more is coming.

Bill Tash, SD-36

I have attached a copy of the MBIA/MAR letter on the Climate Change Advisory Committee's recommendations. We will be presenting oral testimony to the Environmental Quality Council on March 11th as a follow up to this letter.

Please take a few moments and fill out the online survey regarding the climate change recommendations. No growth groups have been working with environmental organizations to fill out over 1,000 surveys. We NEED TO RESPOND!! **http://leg.mt.gov/css/climate_survey.asp**

At a bare minimum, please fill in the survey with a "1" or Do Not Support for recommendations of RCII – 4, RCII – 5, TU-5 – all of these proposals will SUBSTANTIALLY INCREASE the COST of building a Home.

In all honesty, this survey is little more than a joke, as over 700 pages of explanatory information has been written to help legislators understand the proposals. No normal citizen is going to take the time to go through the massive amount of information to learn the implications of the recommendations. Additionally, the survey supplements cite "no cost" for the vast majority of items that effect our industry – a blatant misrepresentation of reality.... All of this will be pointed out to legislators, but WE STILL NEED RESPONSES!

Thank you

(Attachment)

February 27, 2008

Senator Dave Wanzenried

Chairman

Montana Environmental Quality Council

P.O Box 201704

Helena, MT 59620-1704

Senator Wanzenried:

The Montana Building Industry Association (MBIA) is a nonprofit trade association representing over 2100 small Montana businesses. On an annual basis, MBIA members build between 75 – 85% of all new homes in Montana. The Montana Association of REALTORS®_(MAR) has nearly 4,700 members and is the business advocate for Montana real estate professionals, representing practitioners active in all phases of real estate brokerage, management, development and appraisal.

MBIA is wholly committed to improving the energy efficiency and environmental friendliness of homes built across Montana. We are in the final stages of developing our "Montana Green Building Guidelines" that will allow new homes throughout Montana to be certified at different levels of environmental friendliness.

Our Green Build Guidelines has been in development for over 7 years and has been crafted in partnership with over 40 different public and private groups, including the Environmental Protection Agency, The Department of Energy, Energy Star, and the National Association of Home Builders. Recently the American National Standard Institute (ANSI) has certified our program. Additionally we are recognized by the International Codes Council, the body that develops and reviews building codes used throughout the world.

MBIA's Green Building guidelines are a voluntary standard in which builders can choose to be trained. The guidelines, which cover 6 different aspects of green building, will successfully bring a level of green to a large swath of Montana residents currently priced out of the more expensive green build programs.

It is important to note that our Green Building program is entirely voluntary, which promotes environmental conservation while ensuring that workforce housing does not get lost in the efforts to conserve. Though our program is voluntary, it is by no means ineffective. Our standards are affiliated with the National Home Builders Association (NAHB) Green Building Program and each home will be certified utilizing approved verification methods and protocol adopted by the NAHB Research Center. We expect to enroll between 200 – 300 Montana construction companies in our Green Build program by the end of 2008. Two hundred companies is roughly equivalent to 30% of all residential construction companies doing business in the state of Montana. We estimate that over 10% of new homes built in Montana during 2007 incorporated green building components; however these homes are receiving no recognition. Based on national trends and strong interest from homebuilders in Montana, we believe that 25% of new homes will be "green built" by 2020. Many Montanans are already living in houses that are partially green. We don't need mandates to expand that base; we need incentives, education, and promotion of green benefits. It has come to the attention of MBIA and MAR that the Governor's Montana Climate Change Advisory Committee has made several recommendations that relate to the construction of new homes. As previously mentioned, continued gains in the energy efficiency of new homes is a top priority for our associations, though we are just as concerned with the ever increasing cost of workforce housing. And while we understand the desire to reduce carbon emission from within our state, we have significant concerns regarding the cost effectiveness of several of the proposed recommendations. While the climate change recommendations are forward looking, it is important not to sacrifice the immediate future of Montana's working families by pricing them out of the housing market. We believe the best way to reduce Montana's carbon footprint is through consumer education, builder incentives, and easy to use voluntary guidelines. To be clear, green building is a top priority for our associations. However, protecting affordable workforce housing is a higher priority. Therefore, we are opposed to any new mandates that increase the cost of building a new home, cost that will be passed on to new homebuyers. Accordingly, MBIA and MAR would like to articulate significant concerns with 3 of the recommendations areas developed by the Climate Change Advisory Council:

. RCII – 4 Building Energy Codes

. RCII – 5 .Beyond Code. Building Design Incentives and Mandatory Programs

. TLU – 5 Growth and Development Bundle

RCII–4 Building Energy Codes:

Undertaking a comprehensive review of existing building codes in Montana to determine where increased energy efficiency can be achieved.

Currently, Montana is in the process of adopting the 2006 International Residential Code and the International Energy Conservation Code, which has been analyzed and deliberated for 5 years and will not be complete for several months. Furthermore, the process has already begun on the specifics of the 2009 edition of both codes. The process for analyzing and reviewing Montana's building codes is a continuous and thorough process which includes analysis and input from experts located well beyond the borders of Montana. After the code is debated and developed by international experts it begins the Montana adoption process, which includes reevaluation and critique by local builders, building code officials, and state regulators. We are opposed to this "policy design" because Montana's building codes are reviewed through a stringent and methodical process that ensures quality and functionality.

Increasing the review requirements of Montana's building codes ensures nothing but a longer timeline between adoptions of new standards.

. Increasing standards such that the minimum performance of new and substantially renovated buildings, both commercial and residential, is at least 15% higher by 2010 than that required by today's building codes (International Energy Conservation Codes [IECC] 2003, though IECC 2006 codes are under consideration), and 30% higher by 2020.

Currently, the International Codes Council weighs the energy cost savings of any particular component of the code with the cost in implementation. Additionally, rating the energy efficiency of building codes is not a simple numerical process. We are dedicated to preserving affordable housing, and immediate substantial increases that require significant increases in energy efficiency without regard for cost will result less affordable workforce housing. We are opposed to this "policy design."

Encouraging and working toward achieving the goal of .carbon-neutral. status for new buildings. Reductions in GHG emissions related to building energy use can be achieved through a combination of increased energy efficiency, switching to low- and no-carbon fuels (including solar energy) for previously fossil-fueled end-uses, purchases of .green power. from off-site providers, and/or installing on-site power generation fueled by renewable energy sources.

We are supportive of consumer education and market based incentives as methods for promoting green building. However, we are dedicated to preserving the affordability of workforce housing, and we oppose mandated implementation of "carbon neutral" programs that make homes less affordable for Montana's working families.

. Periodically and regularly (no less frequently than every 3 years) reviewing building codes, including energy efficiency requirements of building codes, to ensure that they stay up-to date. Include a review of standards related to air infiltration, building .tightness,. and related ventilation requirements.

This policy design is currently being implemented in Montana.

Offering, and requiring as appropriate, education to equip building code officials, builders, designers, and others to effectively implement building energy code improvements. This might include, for example, developing a corps of licensed independent contractors who could inspect buildings for compliance with the new energy codes, especially in rural areas that currently may have minimal code inspection.

We support continuing education for builders and developers; and a magnitude of training is currently available for building inspectors.

Statewide Building Permit Program: Institute a statewide building permit program to ensure consistency with regard to code application and enforcement among buildings built in both urban and rural areas.

We are staunchly opposed to a statewide building permit. A centralized permit system would result in a loss of local control for over 50 different local governments. Additionally, it would mean cost increases and construction delays. A 1997 Montana Legislative Audit Report looked into the feasibility of developing and implementing a statewide building permit/inspection system and found significant cause to stay with our current system.

The current Montana system ensures a state standard, but is flexible enough to allow for local control and supervision of the building process. A statewide building permit program would interfere with a local government's ability to provide local control, regulate and enforce zoning and planning ordinances, watch local growth patterns, and identify property for property tax purposes. The 1997 Legislative Audit on the feasibility of a statewide building permit found that Montana's current system works better than a statewide permit system. The Audit states: "Montana's current system of combined state and local-level regulation makes sense. It can provide an effective and efficient means of enforcing the state building code..." "Given the large amount of work and the large physical area to be inspected, it is unrealistic for the Department of Commerce or local governments to administer the state building code program alone. A system which relied entirely on local-level enforcement would not be very efficient especially in the more rural counties which have a low number of inspection sites. On the other hand, placing all regulatory authority with the state would have its drawbacks. Local governments would have no oversight of construction occurring in their communities. In addition, local programs can be more efficient in areas with concentrated construction. The current system of combined state and local-level regulation makes sense. It can provide an effective and efficient means of enforcing the state building code. Conclusion: Montana's current system of state and local government building code enforcement programs is a reasonable approach..."

. Additional Code Enforcement: Consider providing additional code enforcement to improve understanding of and

compliance with more rigorous energy efficiency codes.

The current building permit structure is fee based, meaning that the cost of a building permit is commensurate with the costs local governments incur while successfully administering building codes. The mechanism for creating "additional code enforcement" already exists should local governments believe that more enforcement is needed.

. Utility Assistance: Consider using utility resources to help implement building energy codes— for example, having utilities review building designs and monitor energy performance. Utilities might play a role in enforcement through the application of interconnection rules, tariffs, and connection charges that encourage the construction of buildings that use energy efficiently and at an appropriate level.

We are steadfastly opposed to placing the enforcement of building codes, or the approval of building designs, into the hands of any utility. The notion that a utility

company is better equipped than a builder/customer to dictate design is astoundingly absurd. RCII–5 .Beyond Code. Building Design Incentives and Mandatory Programs:

. Reduce per-unit-floor-area consumption of grid electricity and natural gas by 20% by 2020 in existing buildings and by 50% in new buildings by 2020. Up to 10% of the targeted reduction for new homes can come from use of off-site electricity generation from renewable energy.

These requirements should be phased in over time and will have the following targets:

. Improve 25% of existing residential units in Montana by the year 2020.

. Improve 25% of existing commercial floor space in Montana by the year 2020.

We are supportive of providing incentives for building above code specifications. However, we are opposed to any "above code" mandates, including L.E.E.D, and energy efficiency mandates, which will significantly add to the cost of construction and diminish the availability of affordable workforce housing. MBIA's Green Build Guidelines are a market based solution that promotes significant energy conservation. Based upon national trends, and interest among Montana builders, we anticipate that 15 – 20 % percent of new homes will be build to "above code" energy efficiency standards by 2020. Montana currently lacks meaningful incentives for "green building." The adoption of significant incentives, such as tax credits and fee reductions, will go a long way towards encouraging an increased level of "green building" in Montana.

TU–5 Growth and Development Bundle

We are supportive of the local government planning and zoning process. We are also protective of affordable, workforce housing and property rights. Section TU-5, covering a broad range of land use issues, contains several significant policy changes for the State of Montana, all of which will significantly increase the cost of new home construction.

The most significant public policy change highlighted in TU-5 is the use of impact fees to "provide significant cost savings to local governments that could be redirected toward the

city-county multimodal transportation funding." It has always been the position of MBIA and MAR that impact fees should be charged by local governments to cover the cost of new capital facilities directly related to new development. Impact fees are not a politically handy method of revenue generation that allows existing tax dollars to be redirected. Several Montana communities have adopted impact fees ranging from $5,000 – $14,000, causing a significant setback in the stock of affordable workforce housing. New creative liberties with application of impact fees will cause an even larger shortage of affordable homes. The tone and direction of TU-5 appears to signify a turn towards penalizing or denying traditional growth patterns in favor of so called "smart growth" formulas. This sentiment, while currently popular, promotes an extremely adversarial relationship with folks that wish to live in a more rural environment. A one size fits all land use policy will not work in Montana. Once again, we are supportive of the goals outlined by the Climate Change Advisory Committee, however we believe the best approach to achieving these goals is to work through public education, provide builder incentives, and easy-to-use voluntary guidelines. We encourage your support in promoting our Green Build Guidelines, as this program will make significant headway in creating a greener Montana.

Sincerely,

Jeff Junkert Dan Wagner President President Montana Building Industry Association Montana Association of

REALTORS®

ACTION ALERT

In an attempt to address global warming concerns. Governor Schweitzer created the "Governor's Climate Change Advisory Committee". This group produced 54 recommendations. The Environmental Quality Council, during it's January meeting, decided to place them on their website for public comment.

The survey is very long. However, it is **very important that we submit comment.** You are asked to rate each recommendation on a scale of 1-5. I would recommend that you **do not check the #3 box** as that could easily be interpreted as a "I guess I don't care if you do or do not put this in law."

The report has something for everyone ... utilities, agriculture, railroads, housing, appliances, snowmobiles, cars ... you name it. We know that those in favor of these recommendations are responding in large numbers. EQC has indicated that they will weight "comments" more heavily than just numerical votes. In any of the sections that you feel qualified, please offer comment as well as your vote.

Please keep in mind our friends when you are filling out the survey. We need good jobs, housing and affordable energy in this state as well as the ability to ride our sleds and 4-wheelers.

Each question provides you with a link to the report. It isn't done so that you go to the correct page, so it does take some reading. Please remember to offer comment as well as a numerical vote whenever you feel you can.

The link to the survey and the report is http://leg.mt.gov/css/climate_survey.asp. They will accept comment thru February 29, 2008.

We would also like to request that you follow up on this issue either by talking to your legislative candidates and/or writing letters to the editor. A computer survey that allows you to vote as many times as you wish, from anywhere in the world is not how you create good public policy. Although we do not want to ignore the survey, the results should not be the basis for writing law in Montana. Good public policy is created using open public testimony, a thorough understanding of the science and economics involved and open debate - not a public opinion poll.

Please feel free to share this with your friends, family and co-workers.

Thank you for your help.

Hello

I would have participated in your survey if there was anyway other than computer. I think Montana needs to do something about global warming. Dennis Croxton

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Please include this letter with my survey comments to the EQC:

Dear Senator Lugar, we have before us an opportunity to rebuild this great nation. In the interests of national security and economic growth, we need to move ahead with cellulosic ethanol. As Bruce Dale (Michigan State University) points out, we must very carefully plan the biofuels industry. Recently I was reading an article about millions of old tires that were sunk to the bottom of the ocean in hopes of recreating reefs. Now after two decades, scientists have discovered that these artificial reefs have not stimulated coral growth or other aquatic life and loose tires are leaching toxic chemicals and moving around the ocean floor. If we are not careful, a mismanaged biofuels policy could have very similar results with an enlarged Dead Zone in the Gulf of Mexico and depleted soils and wetlands.

Your biofuels and agricultural aide, Aaron Whitesel, has mentioned that you wish to see cellulosic fuels move into unsubsidized production. We could not agree more. Like you, we envision an industry that supports farmers, the railroads, and the US steel industry. I understand your support for corn farmers and I know Indiana is a big corn producer. I also understand that your fuel initiatives and those laid forth by Senator Obama will need cellulosic feedstocks in order to achieve these goals. While the first initial facilities will mostly use waste streams like corn and

wheat stover, we must look beyond monocrops and focus on ecological diversity. Genetically modified switchgrass and miscanthus might be promising in terms of yields but the most recent studies coming from David Tillman (University of Minnesota) are showing that more energy is present in mixed-species grasslands than single, monocropped GMO grasses. The implications of such research are far-reaching in terms of both habitat for wildlife and long-term soil maintenance. Grasslands depend on multiple species of plants all working in unison to return carbon and other miconutrients to the soil horizons. Over a century of chemicals, plowing and extensive groundwater use can be reversed if we use the grasslands as they have been growing for 25 million years. No pesticides, herbicides or fertilizers will be necessary in order to maintain an average production of 6 tons of dry weight per acre. Using 300 million acres of grasslands, we can produce 480 gallons per acre from 6 tons and create 144 billion gallons of fuel per year.

Another reason we need to pursue a natural grassland approach is terrorism. The Middle East is full of people with technical degrees in soil and botanical sciences and we can ill afford to allow them to develop rusts, smuts, diseases and ecological pests that can attack weaknesses in our biofuels industry. Once we get this industry running in the billions of gallons, we cannot have

religious and political fundamentalists using their technical backgrounds to attack our energy crops. Hence, we need to protect our grasslands in a non-genetically modified, ecologically diverse manner. If we do not, the Great Plains and other grasslands will be a breeding ground for uninvited bugs, diseases and pushy and aggressive strains of plants that will affect everyone from farmers and ranchers to American consumers who depend on quality foods and reliable energy for their everyday needs. That means Congress will need to bring the Bureau of Land Management, United States Forest Service and the United States Department of Agriculture up to date on these concerns and I think a cellulosic committee made up of all three departments is a wise idea.

The Great Plains is not the only place where cellulosic ethanol will be produced. We will have biorefineries producing ethanol from aspen/poplar/popple, willow and likely several other trees such basswood, red osier dogwood, birch and cottonwood. The northeastern United States stands to gain a considerable amount of economic growth as aspen is a superior feedstock and there are abundant quantities available. Again, no modification of the natural environment is necessary and the Northeast can maintain a continual production level while providing jobs and income for the now-stagnant lumber and milling industry there. That means that grasslands can replace all the fuel we now use and the other feedstocks such as woodchips, peanut hulls, fruit peels and lawn clippings (using an integrated municipal pick-up system) could produce an additional 100 billion gallon surplus per year for sale to countries in the Middle East, South Pacific and in Asia. Further, in times of drought or unforseen weather on the Great Plains, we could rely on these other areas of production to ensure all yearly fuel consumption is met. Once the surplus becomes available, I think we should maintain approximately 50 Strategic Ethanol Reserves (SER's) of 2 billion gallons per reserve. This would guarantee that in the event of a larger climactic event like a volcanic eruption similar to the Mount Tambora eruption in 1815, we would have fuel to last over a year until global temperatures came back up and it would help stabilize global prices in the event other biomass regions such as the Ukraine, Russian steppe and Canada failed to produce their yearly production levels.

There are other concerns regarding this developing industry that must also be addressed. Those concerns include transportation, storage and infrastructure for ethanol. Grasses and woodchips can be stored outside in bales and piles. However, we must consider downstream processing in terms of value-added co-products such as bioplastics, textiles, sugars, food and pharmaceutical compounds. Thus we need to make sure that much of this biomass is protected from mold, pests, and moisture so that the chemicals in the biomass do not become degraded. I am suggesting we use empty rail cars as storage units. Hence, we can capitalize on the existing rail lines and move the rail cars to the biorefineries as needed. Once the bales, chips, or hulls are unloaded, the rail cars leaving the biorefineries will carry

the actual ethanol. Further, the locomotives can be retrofitted to co-fire high BTU lignin that is left over from the biorefineries and this will help lower fuel costs for the trains. The biorefineries will operate on electrical and heat generation from the combustion of lignin while ethanol and other co-products are made. Any excess electricity can be fed back into the grid or used to power other localized facilities and this will ensure no subsidies are needed to run this industry.

I am aware of the problems with pipelines, holding tanks, fueling stations. These issues are being worked out and there is no question the amount of money generated by this industry will more than pay for these adjustments in a very short time. Further, with new hybrid automobiles being made to run on 85-100% ethanol, the lower MPG concerns will drop as these new cars and trucks get 30+ miles per gallon. Thus, if fuel use drops below 140 billion gallons currently used, we can sell the excess ethanol and use this to pay back the federal loans needed to change the infrastructure. Further, since the Middle East has few biomass reserves, we can sell them our excess ethanol and move into a federal trade surplus rather than a deficit. This will keep the balance power in the hands of NATO countries and make sure the "sphere of influence" is maintained in the EU and North America.

Senator Lugar, thank you for taking the time to consider our input. I have previously contacted the offices of Nancy Pelosi, Olympia Snowe, Byron Dorgan, Maria Cantwell, Russ Feingold, Tom Harkin and Barack Obama. These Congressional members are eager to move in the right direction. Please feel free to contact me at any time.

Sincerely, William James Dittl

GATO Group founder and BOD member

http://gatogroup.org/GG_home.swf

To whom it may concern:
I strongly support Gov. Schweitzer's Climate Change Action Plan. I don't have a working computer to answer online, but I hope you will count me in favor of this plan to prevent the worst effects of global warming.
Thank you for opening this issue up to public response. Sincerely, E. Lee Travis

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Feb. 28,2008

Environmental Quality Council
Po box 201704
Helena, Mt. 59620-1704

Dear Council,

Please support the advisory committee's recommendation for reducing global warming pollution in Montana. They are excellent and minimal!

We are extremely concerned about our care of God's earth for our children.

Thank you.

Karen C .Shores
15 Carkeek Lane
Cameron, Mt. 59720

Eric and Ann Shores
Box 138
McAllister, Mt. 59740

Environmental Quality Council
Legislative Environmental Policy Office
P.O. Box 201704
Helena MT 59620-1704

February 29, 2007

MT Environmental Quality Council:

I commend the state of Montana for taking significant steps in recent months to address the issue of global warming. The November, 2007 release of the "Montana Climate Change Action Plan," and the January, 2008 official joining of the Western Climate Initiative, both demonstrate the state's commitment to taking on the challenges of global warming. But rhetoric, signatures and recommendations only go so far. I am writing to urge and implore the state to do more, and it only seems logical that the Environmental Quality Council be responsible for ensuring such action take place. As wildfires scourge the forests, temperatures reach record highs, and mountaintop glaciers continue to melt, we're watching Montana begin to feel the initial effects of climate change—effects that are harming the natural features that make Montana unique and great, as well as serve as provide the state's economic foundation.

The overwhelming international scientific consensus tells us that we must reduce our greenhouse gas emissions 80% by 2050 in order to avoid catastrophic environmental damages caused by climate change. The Montana Climate Change Action Committee (CCAC) agrees that MT needs to "further reduce emissions to 80% below 1990 levels by 2050"—it's a great long-term goal. However, CCAC's 54 greenhouse gas emission reduction recommendations are only aimed "to reduce gross GHG emissions to 1990 levels by 2022." That is simply not enough. The same group of scientists telling us to reduce 80% by 2050 is also telling us that we must begin reduction now—not two, five, or ten years down the road; we do not have that much time to wait. We need leadership and momentum, and immediate steps are the perfect way to begin. The recommendations that will not be as easy to implement, must at least be in their infant state. In order to reach the GHG emission reduction goals laid out in the Climate Change Action Plan, each of the 54 recommendations must be considered and most actually instituted. Again, we do not have the luxury to wait.

The Montana EQC, with support from the Governor, must draft and enact legislation that will ensure all of the recommendations that might require state involvement get passed and do so quickly. Furthermore, EQC should work with the state legislature to create a system that does not hinder progress on initiatives aimed at curbing greenhouse gas emissions. For example, the "Light-Duty Vehicle Clean Car Standards" (recommendation TLU-1) calls for Montana to adopt emission standards similar to those of California which call for "reductions of GHG emissions of about 30% from new vehicles, phased in from 2009 to 2016." The Climate Change Action Plan projects such an initiative would have no financial implications for the state, and it would save over 4.5 million metric tons of Carbon Dioxide in 13 years. Another example is recommendation ES-2, calling for incentives to invest in wind power. Because the price of wind, at this point in time, is higher than that of fossil fuels, we must find incentives for individuals,

industries, utilities, etc., to invest in wind power and other renewable energy sources. The state should provide financial incentives-subsidies, tax breaks-and should provide a structure in which it is easy to build renewable plants and impossible to build fossil fueled plants. We simply cannot let such an initiatives get lost in the bureaucratic shuffle, and it is the responsibility of the EQC to ensure this does not happen.

It is also crucial that a global warming public education program begin immediately. Not only would many of the recommendations proposed by CCAC benefit from public support and involvement, but more importantly with an effective program more Montana citizens will get involved in the fight against global warming. Citizen involvement is key to the state reducing its greenhouse gas emission significantly—citizens need to understand why they should support state action and they need to take personal steps to participate in the reduction effort.

Finally, Montana must become a national leader in the fight against global warming. Montana, with encouragement and pressure from EQC, must push for the Western Climate Initiative (WCI) "load-based carbon trading system" to begin. It must also challenge the WCI to increase its regional greenhouse gas reduction goal of a mere 15% below 2005 levels by 2020. This is not enough and Montana—and the EQC, aimed at protecting our environment—should expect more from the WCI.

There is no reason that Montana should not be seen as a leader in the nation in the fight against climate change. We do not have to stand in the shadows of California or the Northeast. Montana has a lot to protect and it only seems right and natural for it to take a stand, immediately.

Sincerely,

Jessie Davie

Jessie Davie
University of Montana

The Honorable Senator David Wanzenreid and Representative Carol Lambert
Co-Chairs, Environmental Quality Council
Legislative Environmental Policy Office
P.O. Box 201704
Helena, MT 59620-1704

Dear Senator Wanzenreid and Representative Lambert:

I am writing this letter as a Montana citizen, voter, and University of Montana graduate student concerned about the impacts of climate change in Montana, the nation, and the world. Noting the scientific consensus in the recent National Academy of Sciences and Intergovernmental Panel on Climate Change (IPCC) reports, there is little doubt that anthropogenic global warming is one of the most serious problems facing the world today. Although truly curbing the effects of climate change will require a global solution, state and local governments can and must make a difference. The landmark California Global Warming Solutions Act of 2006 is a fine example of bipartisan leadership in state government making a difference on this issue and a good model for other states to follow. Other efforts, such as the Western Climate Initiative (WCI), are setting the bar for regional GHG reduction targets and policies. I believe it is time for the State of Montana to step up to the responsibility of reducing its own GHG emissions and contribute to the overall solution.

It is encouraging to know that Governor Schweitzer has implored the Environmental Quality Council to think about these issues, as the Montana Climate Change Action Plan (MT-CCAP) is evidence. However, climate change is a pressing issue and its urgency requires that we act now and follow through with the recommendations of the Climate Change Advisory Committee in order to ensure that our prized quality of life in Montana is maintained. What will life be like for our children if we sit back and do nothing? While I fully support all 54 recommendations in the MT-CCAP and agree with the committee that all need to be implemented, and soon, in order to significantly reduce our GHG emissions. In this letter I would like to offer specific comments on only a few of the recommendations.

The first recommendation(s) I want to comment on are **RCII-12** - State Lead by Example and **CC-7.1-7.3** - The State Government's Own GHG Emissions (Lead by Example). I believe implementation is absolutely imperative, not only for educating politicians and encouraging bipartisan leadership to craft GHG-reducing legislation but also for garnering public support. If the state does not 'lead by example' how can we expect **RCII-6** - Consumer Education Programs and **CC-4** - State Climate Public Education and Outreach to work. I fear the public will cry 'foul' if the state government is not "participating in what it is preaching." For any of the CCAC's recommendations to work we need to build a climate movement in Montana. Although most people in Montana believe climate change is real I do not think that many take it serious enough. We need more people from all demographics in the state to mobilize, to build that movement! No doubt an all-out education and outreach blitz will be required to achieve this and with no

time to spare. If legislation to significantly reduce GHG emissions in the residential, commercial, energy, and agricultural sectors needs to be enacted in the next few years, we need to build the climate movement now! I believe RCII-6 and CC-4 can help do this but not without RCII-12 and CC-7.1-7.3.

I would now like to offer a few general comments about the energy supply sector recommendations in the MT-CCAP. I see no reason why we need to export electricity that is generated by the combustion of fossil fuels. With states like California and Washington committing to utilize more and more electricity from renewable sources, we should develop our plentiful wind resources to generate electricity for export while keeping the electricity we produce via fossil fuels for in-state use. However, I fully support significant mitigation measures (**ES-12, ES-13**) to reduce GHG emissions at existing fossil fuel facilities and at any new facilities, especially coal-to-liquids (CTL) plants. We can still burn fossil fuels while reducing our GHG emissions, keep our electricity export market, help other states achieve GHG reductions, and ease a global problem.

Recommendations ES-2 - Renewable Energy Incentives and Barrier Removal, ES-3 - Research and Development (R&D), Including R&D for Energy Storage and Advanced Fossil Fuel Technologies, and ES-4 - Incentives and Barrier Removal (Including Interconnection Rules and Net Metering Arrangements) for Combined Heat and Power (CHP) and Clean Distributed Generation (DG) could help stimulate the development of wind resources. Under ES-3, efforts to link wind power and compressed-air storage may be palpable and will help increase penetration of renewable energy into ES-1 - Environmental Portfolio Standard (Renewables and Energy Efficiency). I also strongly support Montana's involvement in the Western Climate Initiative (CC-7.4). This commits us to more broadly applicable (geographically) GHG reductions and may provide a market avenue to export wind-generated electricity (e.g. mechanism for achieving WCI regional reduction goals).

Finally, I want to re-emphasize my concern over the urgency of the current situation of climate change. Clearly, we can not go on producing and consuming energy the way we do now...no one can. To ensure a livable world for not just ourselves but more importantly our children and generations to come we need to realize significant changes within the next few years. Surely, this can be done but it will require a serious and on-going commitment by the state government. I respectfully urge the Environmental Quality Council to poignantly embrace the recommendations set forth by the MT-CCAP and actively pursue support from the legislature and the governor. Though it may not be feasible to implement all of them now, we must take some action. The citizens of Montana are depending on it!

Sincerely,

Mathew T. Seidensticker
Missoula, Montana

February 23, 2008

The Honorable Senator David Wanzenreid and Representative Carol Lanbert
Co-Chairs, Environmental Quality Council
Legislative Environmental Policy Office
Rm. 171, State Capitol
P.O. Box 201704
Helena, MT 59620-1704

Dear Senator Wanzenreid and Representative Lambert:

I am writing you concerning the Environmental Quality Council's deliberation of the Montana Climate Change Action Plan. I appreciate your time and consideration.

Recently, the EQC solicited comments from the public on the 54 recommendations published in the MCCAP. I submitted the survey, along with brief comments on many of the recommendations. I thought I might take this opportunity to discuss several of the recommendations with you in greater detail.

In a recent essay, author Bill McKibben posed the question, "is it ok, just for a moment, not be all jolly about the environmental crisis now face?" I believe the question valid and his frankness refreshing, for the reality of our current predicament is both dire and imminent. The public health and environmental implications of global climate change are compounded by a looming energy crisis. McKibben goes on to state that regardless of global warming's end result, and the nuances that those debating its outcome are currently focused on, we must act now. He does not mince words, "we need to change, quickly and comprehensively." That change will not be found in a singular resource or solution. Rather, it will come from a combination of new, renewable, low-emission energy sources and sweeping conservation practices engaged in by both governments and citizens.

The urgency of the situation cannot be overstated. Just two weeks ago, 612 scientists from across the nation wrote the United States Congress to convey that very sentiment. "We write to you to convey our sense of urgency. Global warming is already causing serious damage and disruptions to wildlife and ecosystems, and reliable projections call for significant additional damage and disruptions." The statement should find a rapt and undivided audience in Montana. Big Sky Country's greatest resource lies in its pristine landscapes, wildlife and waterways. These natural treasures not only represent the history and heritage of our state but constitute the future of our economy, the lifeblood of our communities. Climate change has already begun to impact Montana's ecosystems. If the trend continues unimpeded, the long-term effects will severely compromise the beauty of this great state.

We *must* act. We *must* act now. We *must* act comprehensively and aggressively. Solutions must come from all levels, all sectors, and all citizens. The Montana Legislature is poised to play a unique and integral role in combating global climate change and its associated negative impacts. Montana has the opportunity to embrace its historic role as individualist and leader, to advance progressive solutions that other states will eagerly follow. Below are but a few of the areas where I believe Montana can lead the charge against the climate crisis.

A carbon tax was included among the 54 recommendations, yet no specific goal was identified. The Plan recommends following national efforts and possibly joining the national efforts in the future. I ask that the Montana Legislature consider the possibility of issuing a state carbon tax. Such a tax is not only possible, but has become a reality in a nearby locale. On February 19th, the British Columbia provincial government introduced the first carbon tax on the North American continent. Balanced by income tax cuts, the new tax will provide real incentives for governments, businesses, and citizens to reduce carbon output. The tax will be phased in over time, eventually resulting in substantial reductions of GHG emissions within five years. While the tax structure is not a perfect model, nor nearly as aggressive as the global standard, it does represent the first attempt to implement the tool in North America. Moreover, it proves that it is possible on a provincial or state scale. The budget, in which the carbon tax was included, contained an entire section outlining steps citizens could take to "go green" and become more energy efficient, thereby taking advantage of the tax incentives and saving money. I hope the Montana Legislature will follow the lead of our northern neighbor, and in doing so lead the nation in this progressive approach to GHG reductions.

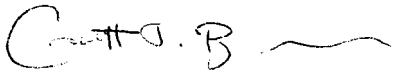
The recommendations concerning building codes and growth and development provide an opportunity for the state to work with counties and cities to implement more efficient building design and land use planning. Revising the building codes to provide incentives for energy efficiency and use of sustainable materials encourages builders to engage in energy efficient construction. Support for this change comes from communities across the state, but the change must occur in the Legislature. To compliment the revised building codes, I strongly suggest the Legislature adopt the Plan's growth and development bundle of recommendations. This multi-faceted recommendation encourages efficient transportation systems, technical assistance for planning, and incentives for smart growth. Inefficient growth not only contributes to increased GHG output but carries with it negative impacts to our landscape and water resources. A proactive approach to growth and development will protect our environment, while creating healthy, livable communities. Adopting these recommendations allows the State of Montana to simultaneously address a significant source of GHG emissions and streamline growth in a sustainable manner. These changes will empower communities who are already attempting to address climate change through growth and development policies, bringing the effort to fight climate change to the local level.

Renewable energy sources and efficiency standards represent another arena in which Montana is poised to lead. Contrary to Governor Schweitzer's emphasis on "clean coal," this archaic fossil fuel is not the answer to our problem; it's the cause of our current predicament. Advancing the discussion and directing investment toward renewable energy sources and energy efficient buildings and industry represents the only viable long term solution. The Western Governors' Association Clean and Diversified Energy Initiative outlines ambitious goals including: 30,000 megawatts of new clean and diverse energy generation by 2015; a 20 percent increase in energy efficiency by 2020; and adequate transmission capacity for the region over the next 25 years. Montana's geography, renewable resources and limited infrastructure increase the feasibility of contributing to the Western Governors' goals at the state level. I encourage you to adopt the Plan's

recommendations addressing energy portfolio standards, renewable energy incentives, and the state leading by example.

I realize that the Legislature has many, many recommendations to consider. While I would encourage the adoption of the Plan whole cloth, I hope that you will give special consideration to those I have outlined in this letter: a carbon tax, renewable energy, energy efficiency, and smart growth. Aggressive policies and legislation in these four areas alone would provide substantial reductions in GHG emissions, create healthier communities, encourage more sustainable lifestyles and protect our greatest resource, Montana. We have a moral obligation to protect that which provides for us. The science is clear and undisputed – if we do not act, act now, act comprehensively and aggressively, we will sacrifice the great state of Montana, irrevocably altering it for our generation and those yet to come.

Most sincerely yours,



Garrett James Budds
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March 3, 2008

Sen. Dave Wanzenried, Chair
Rep. Carol Lambert, Vice Chair
Environmental Quality Council
Legislative Environmental Policy Office
P.O. Box 201704
Helena MT 59620-1704

Dear Chairman Wanzenried, Vice Chair Lambert, and Members of the Council:

Great Northern Properties (GNP) appreciates this opportunity to comment briefly on the recommendations in the Montana Climate Change Action Plan (MCCAP). GNP owns 20 billion tons of coal reserves in Montana and North Dakota and consequently has a keen interest in Montana energy resource development and associated environmental issues.

GNP has responded to only a limited number of the recommendations using the electronic survey offered by EQC. GNP is not sufficiently knowledgeable to cast a "vote" on many of the recommendations. Although we appreciate EQC's efforts to solicit public opinion on the MCCAP recommendations, we believe the results of the survey will have little, if any, value to EQC. Proponents of additional environmental regulations will be mobilized to respond to the survey while the broad cross section of Montana businesses and citizens that will pay the cost of many of the recommendations will likely be underrepresented in the population responding to the survey. In short, the results of the survey are likely to represent the views of a motivated group of advocates rather than the views of the "average" Montanan.

The Executive Summary of the MCCAP contains this statement:

> "Cumulatively, there is a slight economic benefit from implementing all of the CCAC's recommendations." (EX-6)

DEQ Director Opper and others who have been presenting the report to public audiences, including EQC, have tended to focus on this statement, perhaps leaving the impression that adoption of the MCCAP recommendations en mass would be a "free lunch". We urge you not to accept this proposition at face value.

First, it should be noted that the economic analysis of the recommendations is of questionable usefulness for making major public policy decisions due to the limited time and absence of Montana-specific information available to the consultants that prepared this analysis.

Second, the report also contains this statement:

> "Some [of the recommendations] will cost money to implement, and many will save money by reducing energy needs and costs." (EX-3)

We urge you to look at each recommendation independently and consider its specific costs and benefits. It may be that some of the recommendations, especially those focused on energy efficiency, will result in lower green house gas emissions and lower costs for consumers. These recommendations should be given serious consideration.

However, many of the recommendations would impose significant new costs on Montana's economy. In the Energy Supply segment, the report indicates that the MCCAP recommendations, other than the energy efficiency recommendation, would result in net costs of $350 to $950 million (2007-2020 NPV) to Montana's businesses and citizens.

And this total does not include the unquantified costs of some of the most costly recommendations such as a cap and trade system for regulating green house gas (GHG) emissions. While the costs of such regulations are difficult to estimate, the attached report, based on credible national studies, shows a potential reduction in Montana's economic output of $400 million to $1.3 billion per year and the loss of 6,200 to 16,600 jobs by 2015.

Therefore, we urge EQC to move cautiously with respect to the Energy Supply recommendations due to the significant costs involved.

GNP expects that federal legislation to regulate GHG emissions will be passed in the near future and we are developing our business plans accordingly. In the meantime, we believe it would be ill-advised for Montana to adopt GHG emissions regulations in advance of federal legislation. Any regional or Montana-specific regulations would have an infinitesimal impact on global climate change. "Early adoption" of regulations would impose significant costs on Montana businesses and consumers and would send an anti-business message to energy developers driving new projects and related investment to neighboring energy-producing states such as Wyoming and North Dakota.

Sincerely,

Chuck Kerr

cc: Joe Kolman, EQC
Sonja Nowakowski, EQC
Todd Everts, EQC Attorney

Economic Impacts of Potential Montana Climate Change Initiatives: Evidence from MIT and Penn State Analyses

December 2007

Introduction

Montana and other western states are actively pursuing a variety of policy initiatives to address global climate change. This paper examines results from two recent studies by MIT and Penn State on the potential costs of carbon dioxide cap-and-trade and other climate policies. It concludes that a state or regional cap-and-trade policy imposed in Montana potentially could reduce annual state economic output by hundreds of millions of dollars, with more than ten thousand job losses.

Montana is a major coal producing and consuming state, with more than one-quarter of the nation's estimated recoverable coal reserves. Montana ranked 47th in GDP by state in 2006, and 46th in per capita personal income. In 2005, Montana produced 40.3 million tons of coal, 3.6% of total U.S. coal production. In 2007, coal will supply roughly two-thirds of Montana's electric generation. Montana's electric rates are currently below the U.S. average due the availability of relatively low-cost coal and hydroelectric generation. In August 2007, Montana's residential customers paid 9.1 cents per kWh, compared to the national average rate of 11 cents/kWh.

Executive Summary

A state or regional greenhouse gas control program could harm the competitiveness of Montana's industrial base by raising energy costs above those of competing states, and penalizing new clean energy development. Economic research indicates that Montana's economy would suffer as a consequence of higher prices for energy and other consumer goods, and reduced employment and economic growth. Most of these impacts would result from the reduced utilization of coal for electric generation.

This paper uses two recent studies of the economic impacts of greenhouse gas controls – one prepared by MIT[1] and one by Penn State

[1] S. Paltsev *et al.*, "Assessment of U.S. Cap-and-Trade Proposals," (MIT Joint Program on the Science and Policy of Global Change, Report No. 146, April 2007). Available on the web at: web.mit.edu/globalchange/www/MITJPSPGC_Rpt146.pdf

University[2] – to estimate the economic impacts on the Montana economy of potential greenhouse gas control policies.

These two studies used different approaches to estimate the costs of climate change initiatives. Penn State used an input-output model to measure the direct and indirect impacts on individual state economies of reducing coal use – a principal means to achieve near-term reductions of carbon dioxide emissions. Penn State took into account the positive offsetting employment and output benefits of investments in alternative energy supplies such as renewables and natural gas.

The April 2007 MIT analysis employed a general equilibrium model of the U.S. economy to estimate the costs of achieving economy-wide greenhouse gas reductions based on several climate bills before the U.S. Congress. The emission reduction targets MIT analyzed include proposals similar to those under consideration by various western states.

Penn State found that states such as Montana that rely on coal for a substantial portion of electric generation, and that also produce major quantities of coal, obtain significant benefits from the availability of low-cost and reliable electricity. In 2015, coal mining and coal-based electric generation are projected to account for $4.5 billion of Montana's economic output, while creating $1.4 billion in personal income and adding 44,000 direct and indirect jobs.

Penn State's findings for the net economic impacts of reducing the use of coal for electric generation in Montana by -33% and -66% in 2015 are summarized below. A 33% displacement of coal generation could be expected with an aggressive emission reduction target taking effect after 2015, due to the likelihood that generators would reduce CO2 emissions early in order to "bank" reductions for use in later years. The Penn State estimates shown here are based on the average of alternative low and high-energy price projections.

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[2] Adam Z. Rose, Ph.D. and Dan Wei, "The Economic Impacts of Coal Utilization and Displacement in the Continental United States, 2015" (The Pennsylvania State University, July 2006.)

Potential Impacts of Electric Utility Carbon Dioxide Limitations on Montana Output, Household Income and Jobs, 2015

	-33% Coal Displacement	-66% Coal Displacement
State output ($2005 Bil.)	-$0.4	-$1.3
H'hold income ($2005 Bil.)	-$0.2	-$0.5
Jobs	-6,200	-16,600

Source: Penn State University (see fn. 2).

MIT's macroeconomic study for the U.S. economy examined the impacts of alternative climate change bills before Congress, assuming a nationwide emissions trading program. MIT's findings for Montana are summarized below, based on a conservative arithmetic average allocation of Montana's GDP as a fraction of U.S. GDP in 2005 (0.24%) and Montana's share of national coal-based electric generation through July 2007 (0.85%).

Potential Impacts on Montana GDP of Greenhouse Gas Emission Limitations Analyzed by MIT (Billions of 2005 $)

MIT Case	2015	2025	2050
1 ("Bingaman")	-$0.2	-$0.7	-$0.7
2 ("Lieberman-McCain")	-$0.5	-$0.9	-$1.2
3 ("Sanders-Boxer")	-$0.6	-$0.5	-$2.2

Source: Derived from MIT (see fn. 1).

MIT's GDP estimates cover a range of increasingly stringent greenhouse gas control proposals. The "Bingaman" case imposes a growth cap on greenhouse emissions, but does not include Bingaman's proposed emission allowance safety valve price cap. The "Lieberman-McCain" and "Sanders-Boxer" proposals each require U.S. emissions to return to 1990 levels by 2020, and then to achieve 60% and 80% reductions below 1990 levels by 2050, respectively.

The MIT and Penn State findings for the potential loss of Montana GDP are generally consistent. The lower-bound Penn State estimate of a $0.4 billion GDP loss corresponds well with MIT's $0.5 billion impact in Case 2 in 2015. Penn State's 66% displacement finding of a $1.3 billion GDP loss is consistent with MIT's Case 2 findings in later years.

The MIT and Penn State findings underscore the importance to Montana of engaging the climate change issue through national legislation, rather than state or regional policies. Montana competes both domestically and internationally, and its electric sector is a key source of low-cost energy production in the Rockies. Montana's political leaders should insist upon a level playing field for all states, in the framework of national legislation that includes significant incentives for the participation of major developing nations.

The impact of higher electric generation costs on Montana's ability to compete in interstate electric markets is a major uncertainty requiring careful evaluation by Montana policymakers. Imposing major new regulatory costs on Montana generators, such as through emission allowance auction requirements, may reduce Montana's generation and exports, likely leading to additional new rate burdens for Montana consumers. The impacts of state or regional carbon allowance auction requirements on the development of new clean power generation assets also need to be evaluated, because carbon capture and storage technologies are not likely to be commercially available in the short planning timeframe proposed by current state and regional climate initiatives. These constraints may cause a major shift away from coal toward higher-cost natural gas generation, with adverse electric rate implications for all consumers.

Penn State Research

A July 2006 study by Professor Adam Rose and Dan Wei of Penn State University, "The Economic Impacts of Coal Utilization and Displacement in the Continental United States," estimates the state-specific costs of displacing coal-based electric generation through climate change or similar state legislation. The Penn State study estimates specific economic and job impacts for Montana if state climate policies required utilities to reduce their utilization of coal in favor of renewable energy or natural gas generation.

Coal-generated electricity is among the lowest-cost power produced in Montana. In 2005, Montana produced 40.3 million tons of coal, or 3.6% of U.S. coal production. Electric utilities in Montana relied on coal to supply two-thirds of their total generation in August 2007.[3] Industrial electric rates, a critical attraction to energy-intensive manufacturing and processing industries in Montana, averaged 6.1 cents per kilowatt-hour in August 2007, or 11% below the national average rate of 6.8 cents/kwh.

Penn State found that states such as Montana that rely on coal for a substantial portion of electric generation, and that also produce major quantities of coal, obtain significant benefits from the availability of low-cost and reliable electricity. In 2015, coal generation is projected to increase Montana's economic output by $4.5 billion, while creating $1.4 billion in personal income and adding 44,000 direct and indirect jobs.

Penn State simulated cases where alternative energy supplies (including natural gas, nuclear, and a 10 percent mix of renewables) displace coal-based electricity generation at levels of 66 percent and 33 percent. The two displacement scenarios were calculated using low, high, and average projections for the costs of alternative energy supplies. These levels of coal displacement could be anticipated if Montana adopted carbon dioxide restrictions, such as a cap-and-trade program, on Montana electric utilities. The findings take into account the positive offsetting benefits of alternative investments in natural gas and renewable energy sources, such as wind and biomass.

The following table estimates the economic and job impacts of reducing Montana's coal-based electric generation by 33% and 66% by the year 2015. These estimates are based on the average of Penn State's results for its low and high energy price scenarios.

[3] Energy Information Administration, State Energy Profile – Montana (November 2007).

Potential Impacts of Electric Utility Carbon Dioxide Limitations on Montana Output, Household Income and Jobs, 2015

	-33% Coal Displacement	-66% Coal Displacement
State output ($2005 Bil.)	-$0.4	-$1.3
H'hold income ($2005 Bil.)	-$0.2	-$0.5
Jobs	-6,200	-16,600

Source: Penn State University (see fn. 2).

The magnitude of these estimates reflects the importance of coal-based generation to Montana's economy. Some $1.3 billion of annual state economic output could be lost as a consequence of shifting two-thirds of coal-based generation to higher-cost forms of electric generation. Household income loss estimates for the two displacement scenarios range from $0.2 billion to $0.5 billion, with potential direct and indirect employment losses ranging from 6,200 to 16,600 jobs.

The key alternative energy price variable underlying Penn State's calculations is the price of natural gas used in lieu of coal. Penn State used low and high estimates for the price of natural gas. In the 33% displacement scenario, Penn State assumed that the delivered price of natural gas in 2015 would range from $5 per mcf (low case) to $9 per mcf (high case). In the 66% displacement case, natural gas prices were projected to range from $6 to $10 per mcf. The current wellhead price of natural gas is nearly $8 per mcf. Penn State's estimates, using an average of the low and high energy price cases, are likely conservative.

MIT's 2007 Cap-and-Trade Analysis

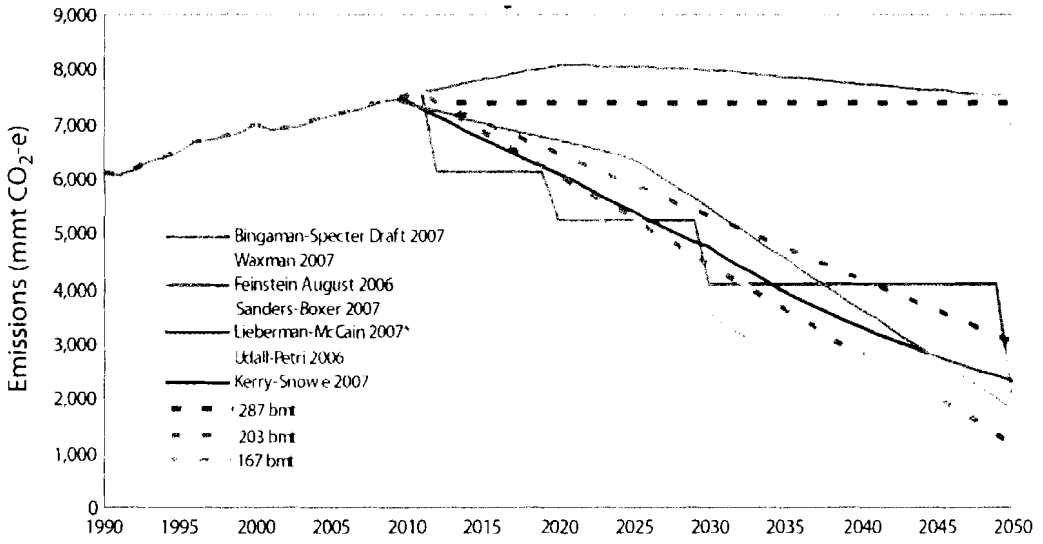
An April 2007 report from the MIT Joint Program on the Science and Policy of Global Change analyzes the economic impacts of all major greenhouse gas cap-and-trade bills before the U.S. Congress. The MIT study groups these bills into three cases, based on the cumulative number of carbon dioxide-equivalent (CO2e) emission allowances issued from 2010 to 2050. An emission allowance confers the right to emit one ton of CO2. The

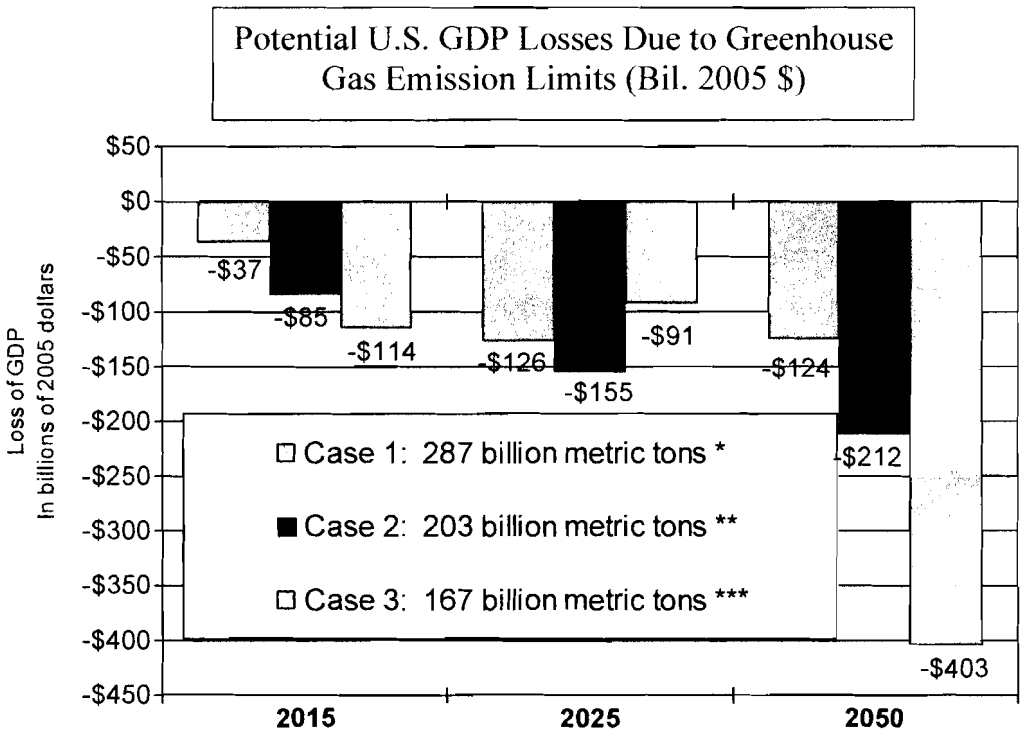
cumulative emissions allowed by MIT's three cases are 167, 203 and 287 billion metric tons.

The MIT report offers the first systematic evaluation of the potential effects of alternative cap-and-trade programs on the U.S. economy. Using a general equilibrium model, it finds that bills such as those introduced by Senators Sanders and Boxer (equivalent to Case 3, 167 billion tons of CO2) and Lieberman-McCain (equivalent to Case 2, 203 billion tons of CO2) would inflict substantial harm on U.S. GDP and would cause sharp energy price increases across the economy. For example, MIT found that the Boxer bill and similar measures would increase the price of gasoline at the pump by $2 per gallon by 2050.

The national carbon dioxide emission paths of MIT's three cases are shown in dashed lines on the chart below, along with several proposed Congressional climate change bills. The second chart displays the estimated GDP reductions associated with each of the three MIT cases.

MIT CO2 Emission Paths, 2005-2050





*Similar to Bingaman January 2007 proposal (w/o safety valve price cap).
** Similar to Lieberman-McCain bill and to Gov. Blagojevich's proposal.
*** Similar to Sanders-Boxer bill.

In 2005, Montana's Gross Domestic Product was $30 billion, or 0.24% of our national GDP of $12.4 trillion.[4] The state's share of U.S. coal-based electric generation – the sector most affected by carbon cap-and-trade proposals – was 0.85% through July 2007. Assuming an arithmetic average of these values for allocating MIT's national results, the following potential impacts on the Montana economy can be inferred:

Potential Impacts on Montana GDP of Greenhouse Gas Emission Limitations Analyzed by MIT (Billions of 2005 $)

MIT Case	2015	2025	2050
1 ("Bingaman")	-$0.2	-$0.7	-$0.7
2 ("Lieberman-McCain")	-$0.5	-$0.9	-$1.2
3 ("Sanders-Boxer")	-$0.6	-$0.5	-$2.2

Source: Derived from MIT (see fn. 1).

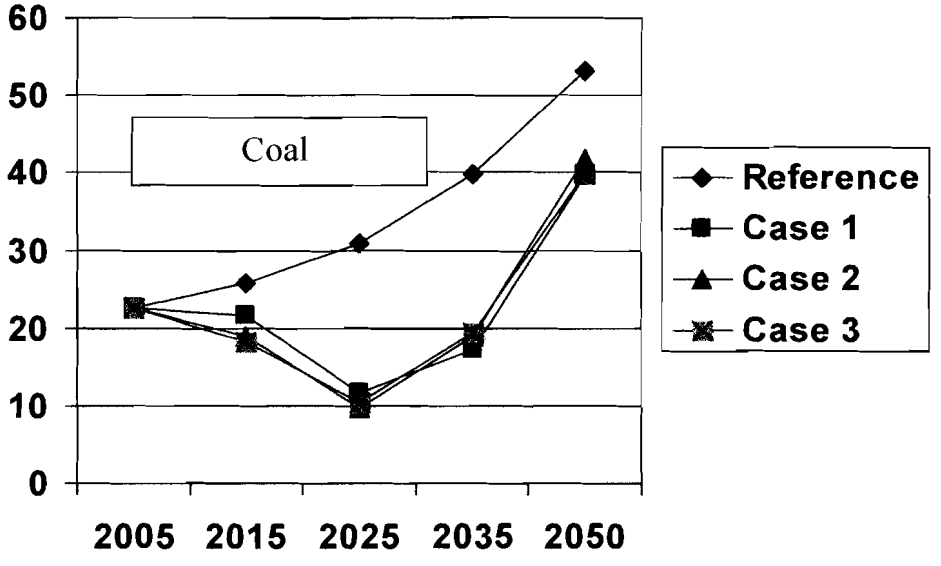
[4] U.S. Department of Commerce, Bureau of Economic Analysis, Gross Domestic Product by State 2005 (May 2007).

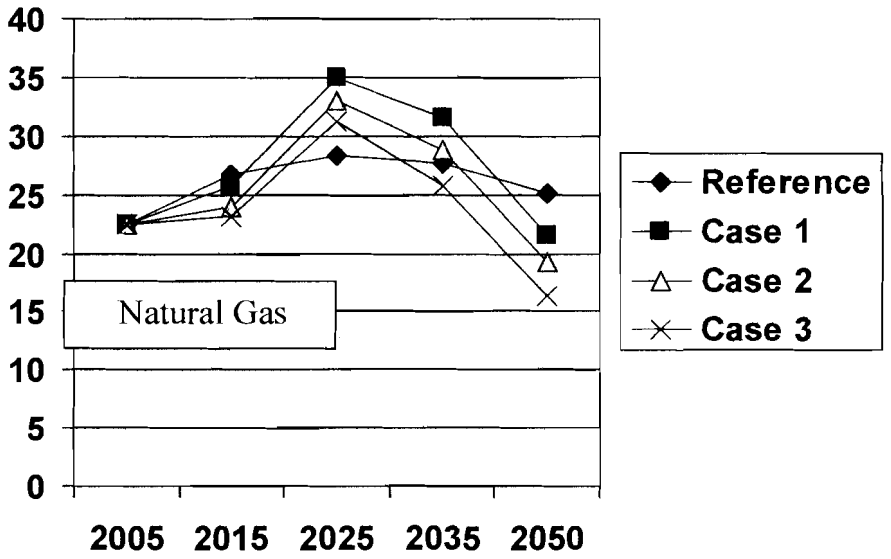
MIT's Case 2 GDP impact estimates, incorporating a national emissions trading program, are generally consistent with Penn State's findings for the 33% coal displacement scenario in 2015, and with the 66% coal displacement scenario in the later projection periods.

In MIT's analysis, significant coal displacements occur in the 2020-2030 timeframe, before carbon capture and sequestration (CCS) technologies are assumed to be deployed on a wide scale. In all three of the carbon cap-and-trade cases, as shown by the charts below, coal utilization declines by more than 50% from 2005 to 2025, and then recovers by 2050 due to the availability of CCS technologies. Initially, natural gas provides most of the alternative energy to replace coal. Later, as both oil and gas supplies dwindle and prices rise dramatically, biomass liquids replace large quantities of natural gas and petroleum.

MIT's energy utilization findings show that the timing of initial emission reductions is the critical factor for maintaining coal use until CCS technologies are available. Short-term targets, such as reducing to 1990 levels by 2020, adversely impact coal use because there are no effective control technologies capable of major emission reductions other than fuel substitution. Energy efficiency and conservation programs, while capable of reducing electric demand, are not sufficiently reliable to support compliance with legally binding emission caps.

U.S. Coal and Natural Gas Utilization, MIT Reference Case and Alternative CO2 Caps, 2005-2050
(In Exajoules/Quadrillion BTUs)





Source: MIT, Appendix C.

Discussion

The Penn State and MIT studies underscore the importance to Montana of engaging the climate change issue through national legislation, rather than stand-alone state or regional policies. Montana's goods compete both domestically and internationally, and its electric sector is a key source of low-cost energy production in the Rockies. Montana's political leaders should insist upon a level playing field for all states, in the framework of national legislation that includes significant incentives for the participation of major developing nations. Participation by India, China and other major developing nations would reduce world energy prices due to reduced oil demand. It also would open up additional low-cost markets for emissions offsets, reducing the costs of U.S. compliance.

The impact of higher electric generation costs on Montana's ability to compete in interstate electric markets is a major uncertainty requiring careful evaluation by Montana policymakers. Imposing major new regulatory costs on Montana generators, such as through emission allowance auction requirements, may reduce Montana's generation and exports, likely leading to additional new rate burdens for Montana consumers.

The impacts of state or regional carbon allowance auction requirements on the development of new clean power generation assets also need to be evaluated, because carbon capture and storage technologies are not likely to be commercially available in the short planning timeframe imposed by current state and regional climate initiatives. These constraints may cause a major shift away from coal toward higher-cost natural gas generation, with adverse electric rate implications for all consumers.

To: Montana Environmental Quality Council
From: Richard Barrett, Professor Emeritus of Economics, University of Montana
Re: Report of the Climate Change Advisory Committee
Date: February 28, 2008

I wish to submit the following comments in lieu of responding to the on-line survey on the CCAC report being conducted by the EQC. The format of the survey does not lend itself to recording the kind of overview of the report that I believe is needed. I hope that the Council will accept comments made in this form.

I. Necessity for Federal action.

One of the realities that Montana must confront in designing a climate change policy is the fact that if it acts alone, it can accomplish nothing: the state's share in global emissions of GHGs is so small that by reducing its emissions it can have no appreciable impact on the growth of GHG concentrations or the pace of climate change. On the other hand, if other states or nations act to limit emissions, Montana can "free ride" on the resulting improvement in climate conditions without actually having to limit its own emissions at all.

What is true of Montana in this case is also true of almost all other states and nations in the world, and this gives rise to a dynamic leading to collective inaction[1], even though collective action is obviously desperately required. This type of dynamic is observed in other policy making situations in which non-cooperative decision-making leads to bad collective outcomes. Arms races and competitive business recruitment that results in tax and regulatory "races to the bottom" are examples.

Avoiding collective inaction in these cases requires that states give up unilateral policy making and participate in some form of collective decision making. This may range from purely voluntary arrangements in which states limit emissions, trusting that others will be far-sighted enough to do the same, to arrangements in which they are compelled to act by Federal policy or under the terms of some kind of inter-state agreement. An important question for Montana then becomes which of these arrangements is most appropriate.

Given the pace at which the states appear to be prepared to reduce emissions voluntarily, and given the constraints in forming effective and binding interstate agreements to do so, *only a comprehensive Federal policy to strictly limit emissions will allow Montanans to reduce their impacts on the global climate and*

[1] The short-term strategy that best promotes each and every policy making entity's narrow self interest is always inaction, regardless of what other entities do. The refusal of the United States to participate in the Kyoto Accords may be viewed as the pursuit of this type of strategic decision making.

be assured that their actions will be part of a meaningful collective effort, and not simply pointless self-sacrifice.[2]

Two of the CCAC recommendations (RCII 9 and ES 8-9) urge Montana policy makers to promote the enactment of a Federal emissions policy in the form of either a carbon tax or a cap and trade system. But the CCAC appears to regard such a policy as ancillary to the state policies articulated in the remaining recommendations. This inverts what the proper relationship between state and Federal policy should be. RCII9 and ES 8-9 should, rather, be treated as a fundamental component of state action.

The CCAC's description of the similarities and differences between a carbon tax and a cap and trade system is accurate and even-handed, but omits an important point. Both policies work by putting a price on emissions – either a tax or an allowance price. This price represents a cost to carbon emitters (or what is almost the same thing, fossil fuel energy users) and to avoid these costs, emitters have an incentive to cut emissions using existing technologies and to search out and invest in better emissions reduction technologies to use in the future. Under both systems, reductions in emissions will be achieved by those entities (industrial plants, vehicle users, power plants, etc.) that can do so a lowest cost. The critical difference between the systems, however, is that under a carbon tax, the cost of emissions is known, but how far entities will go to reduce their emissions to avoid incurring that cost is not. A carbon tax is therefore said to enjoy *certainly of cost* and *uncertainty of effect.* Under cap and trade, emissions *must* be cut to the capped level; the price of allowances perforce rises to an (unknown) level which is sufficiently high to induce entities to achieve the required emissions reductions. Cap and trade therefore enjoys *certainty of effect* and *uncertainty of cost*.

To be certain in its effect, then, Federal policy should take the form of a cap and trade system, and such a system is what Montana policy makers should advocate.

As it now stands, this appears to be the direction that Federal policy will take in any case, for a variety of political as well as economic reasons. Some time this spring the Senate will vote on a cap and trade bill, introduced by Senators Warner and Lieberman and reported out by the Environment and Public Works Committee with the support of Senator Baucus, who is a member of the committee. Given the current alignment of the Congress and the position of the

[2] The fact that climate change can be arrested only through international action also means that a comprehensive Federal policy must be in place. The United States will be unable to negotiate emissions limitations with other nations (notably China and India) without having a mechanism for limiting its own emissions in place, and comprehensive negotiations cannot proceed with the United State's involvement.

President, this bill is not likely to become law. But it does appear indicative of the type of legislation that will eventually become law.[3]

(2) Montana policy under a Federal cap and trade program.

If a national cap and trade system (following the lines of Warner-Lieberman) is put in place, Montana families and businesses will face rising costs of emissions (or, equivalently, energy use) which they will either need to absorb or figure out inventive ways of avoiding (by conservation, efficiency, fuel switching, etc,). To help them make these adjustments, the state will have to enact a number of complementary policies.

Specifically, the state should enact policies to (1) reduce the potentially regressive impacts of the Federal system (2) provide the public infrastructure needed to respond to the demands of the system, e.g. public transportation planning and services, (3) support research on and development of technical innovations in conservation, renewable energy, etc., (4) establish standards and legal frameworks needed to assure that claimed emissions reductions are legitimate, e.g. sequestration standards for coal fired power plants, (5) maintain and enforce non-GHG-emissions-related environmental standards that may be threatened by the response to the cap and trade system, e.g. spillovers from ethanol production, (6) provide education and assistance to consumers, businesses and governmental units and (7) provide revolving loan funds to finance efficiency, conservation and fuel switching investments.

Many, if not most, of the CCAC recommended measures fall into one or another of these categories. On the other hand, several of the CCAC recommendations call for the creation of tax incentives, the imposition of standards, and changes in regulatory practices in order to induce or require specific emissions reduction strategies to be employed (building codes, mileage standards, sequestration requirements, RPS's, etc.). The logic of cap and trade, however, suggests that such measures are not really needed nor appropriate. People (businesses, families, government agencies, etc.) are told that they must cut their emissions, but not how to do so. It is assumed that they can figure out the way of living with the caps that best suits them. If you want to cut tailpipe emissions by 50%, do it. But you don't need to tell people on top of that they have to buy vehicles with 100% better mileage; if they want to keep their SUVs and drive them half as much, so be it (of course there may be other reasons, such as enhanced highway safety, for wanting to reduce vehicle size). In practice, many of the CCAC mandates or subsidies would prove to be redundant under a stringent Federal cap: when people are forced to reduce their emissions[4], they will

[3] Senators Obama and Clinton support Warner-Lieberman, and Sen. McClain previously introduced (with Sen. Lieberman) a cap and trade bill only somewhat less stringent than the current proposal.

[4] Formally, nobody is "forced" to reduce emissions; the price of emissions, rather, *inevitably* rises enough that people can't afford not to reduce emissions by the required amount.

probably buy more efficient cars and tires, build more efficient homes, generate electricity with wind, etc. without having to be told or be paid to do so.[5]

Most of the CCAC recommendations would work to help Montanans adapt to the stringent requirements of a Federal cap and trade policy. As such a policy comes on line and its shape emerges more clearly, the state policies recommended by the CCAC might need refinement, and those CCAC policies which promote or mandate specific emissions reduction strategies may prove to be redundant and in certain situations, counterproductive.

(3) Montana policy in the absence of Federal action.

If Montana is forced to formulate a climate policy in the absence of Federal action, it will reduce emissions with hope that (a) other states (and perhaps nations) will do the same and/or (b) state policies will force the Federal government to finally act.[6] Such a reduction – specifically, the return, by 2020, of emissions to their 1990 level - is the goal of the CCAC recommendations.

It is almost impossible to know, however, if the CCAC recommendations can actually have their desired effect. The problem is that even though the Technical Working Groups made a heroic effort to identify the costs incurred and savings realized by reducing emissions under each (or at least most) of the recommendations, it is apparent that there are barriers to undertaking many of the recommended measures, the significance of which is unknown.

Consider that in 18 of the 40 cases in which the costs and savings associated with a measure were assessed, savings exceeded cost. Economic logic suggests that no policy should be needed to induce, cajole or impel people to undertake these measures; they will do so on their own because they can make money doing so. That they don't is evidence that lack of market knowledge, transactions costs, inertia, tax or regulatory provisions, and/or inadequate access to capital are preventing them from acting. Many of the CCAC recommendations are designed to overcome such barriers[7], by educating, providing incentives and technical assistance, revolving loan funds, and so forth. But the magnitude of the incentives, the nature of educational effort, the content of technical assistance and the terms of loans that would overcome these barriers are not known, and not specified in the report. It is therefore impossible to know whether the emissions reductions projected by the CCAC can actually be achieved, or if they

[5] In this connection it should be noted that Warner-Lieberman requires a slightly larger reduction in emissions, nation wide, by 2020 than the CCAC recommendations are intended to produce in Montana.
[6] Neither the Federal government nor regulated industries have a very high tolerance for disparate state climate change policies, and states have been moderately successful, at best, in achieving any uniformity in this area.
[7] As pointed out above, in the context of a cap and trade system, these measures help people adapt to the demands placed on them when they are required to pay for emissions.

can, what the extent, design and cost of the policies to achieve them will turn out to be.

Even if all of the CCAC recommendations could be carried out, the overall reduction in emissions would not be efficiently achieved. The reason for this is that some of the recommended measures are clearly inefficient. Under TLU-7, for example, (Heavy-Duty Vehicle Emissions Standards and Retrofit Incentives), emissions are reduced at a cost of $\$79/tCO_2e$. It is hard to imagine, given the net costs of most of the recommendations (many of which are negative, i.e. they produce positive net returns) that there is not a lower cost, more efficient way of reducing emissions by .16 million metric tons over the 2007-22020 period, which is the reduction that TLU-7 is intended to achieve. Under a cap and trade policy, the measures described in TLU-7 would not be undertaken; some more cost-effective strategy would be triggered as the price of allowances rose, but long before it reached $79 a ton.

Given the foregoing, to achieve certainty in reducing emissions by the targeted amounts, and to achieve this reduction in the least costly way possible, Montana, in the absence of Federal action, should put in place a state cap and trade system that gradually reduces emissions to 1990 levels by the year 2020.

The majority of the CCAC recommendations should be followed, but as in the case of a Federal cap and trade policy, some policies may need to be adapted to the demands created by the cap and trade system, and those CCAC policies which promote or mandate specific emissions reduction strategies may prove to be redundant and in certain situations, counterproductive.

It may be argued that Montana, as a single state operating openly in the larger national and global economy, cannot afford the impairment to its competitive position which would result from the costs imposed on it by a cap and trade policy. But the logic of the cap and trade policy proposed here suggests that its costs would be *lower* than those involved in carrying out the CCAC recommendations. It is true, of course, that under most of the CCAC recommendations no one is forced to bear any costs, and the recommendations may therefore appear less onerous. But it should be clearly understood that if Montanans fail to bear the costs that the CCAC recommendation entail, they will also fail to meet the target for emissions reductions that the CCAC has embraced.