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Energy and Telecommunications Interim Committee

61st Montana Legislature

December 23, 2009

To: ETIC members
From: Sonja Nowakowski, ETIC staff
Re: Energy Policy public comment

Over the last several weeks, the ETIC accepted public comment on three of the nine energy policy issues outlined in Senate Bill 290. Those issues include:

- promoting energy efficiency incentives;
- promoting conservation; and
- increasing energy efficiency standards for new construction.

The ETIC asked the public to suggest specific changes in state law that are needed in these areas, as well as to provide their thoughts on potential findings and recommendations. These are the comments received as of Monday, December 21. I hope you will all take a few moments to read through them. They are also available on the ETIC Website. You will receive copies of any additional comments that are received at the January meeting.

If the committee develops a revised energy policy, it will focus on the nine issues the ETIC has sought public input on over the last several months. The committee will seek further public comment on a revised policy, if pursued, in the spring of 2010. A complete schedule is available under the "Energy Policy" link on the committee's Web site, which is www.leg.mt.gov/etic.

Sonja Nowakowski
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Montana Legislative Services Division
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Helena, MT 59620-1704
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Cl0425 9355slxe.

Nowakowski, Sonja

From: James Meadow [jfmeadow@gmail.com]
Sent: Friday, November 20, 2009 1:25 PM
To: Nowakowski, Sonja
Subject: SB 290 Comment

I am writing to encourage action on the final three issues being reviewed under Montana's energy policy. I STRONGLY SUPPORT increasing energy efficiency standards for new construction, promoting energy efficiency incentives, and promoting conservation. Our state stands to become a frontrunner in alternative energy production, and as such we should LEAD BY EXAMPLE as the rest of the nation debates energy efficiency and conservation. Lack of STRONG ENERGY EFFICIENCY STANDARDS is a complete waste of energy, and energy, as we know it, will never again be as cheap as it is now! Right now is the time to act on energy efficiency standards as well as education to promote conservation. Specifically, Montana should IMMEDIATELY improve energy efficiency incentives such as tax rebates for conservation and efficiency measures, subsidies for small scale alternative energy equipment (like solar-thermal water heaters and household solar panels), and most importantly CUT THE EFFORT REQUIRED TO RECOUP PERSONAL EXPENSE on energy-saving measures at the household level. I feel that the excessive red tape inherent in rebates and tax incentives is a strong deterrent to personal investment. In other words, the initial investment required by customers for household conservation measures should be reduced, and this will spur small-scale investments and reduce energy consumption.

Thank you for considering this comment
--
James Meadow
Land Resources and Environmental Sciences
Montana State University
(406) 370-7157
jfmeadow@gmail.com

Nowakowski, Sonja

From: Shirley, Gayle (LEG) on behalf of Legislative Information Office
Sent: Monday, November 23, 2009 9:05 AM
To: 'Robert L Hawks'
Cc: Nowakowski, Sonja
Subject: RE: Energy Policy

Hello Rep. Hawks, and thank you for your comments. I have forwarded them on to Sonja Nowakowski, the research analyst and staffer for the Energy and Telecommunications Interim Committee. She plans to share all comments with the committee in the next month or so.

Best wishes for a happy Thanksgiving!

Gayle Shirley
Legislative Information Officer

From: Robert L Hawks [mailto:r_hawks@imt.net]
Sent: Saturday, November 21, 2009 1:42 PM
To: Legislative Information Office
Subject: Energy Policy

ENERGY AND TELECOMMUNICATIONS INTERIM COMMITTEE

- increasing energy efficiency standards for new construction;

Health and safety issues are a strong justification for building codes in cities as well as rural areas. Expansion of building code provisions to include energy efficiency standards to a rational level is appropriate and needed.

- promoting energy efficiency incentives; and

At a minimum, a review of the myriad of energy efficiency incestives seems needed so that we might be more efficient and comprehensive in our approach to the issue.

- promoting conservation.

Conservation was an ethic of an earlier generation and perhaps the current economic climate may produce a partial return of those values. It is a highly productive solution, but would be more productive if our efforts were part of a national campaign.

Regards,
Bob Hawks

Nowakowski, Sonja

From: Sam Bixler [bix96@hotmail.com]
Sent: Monday, November 23, 2009 10:33 AM
To: Nowakowski, Sonja
Subject: Energy Efficiency Comment

Ms. Nowakowski,

While we all should be for a cleaner environment I would caution the legislators about imposing top-down regulations to promote energy efficiency. Businesses already face large hurdles before opening their doors, and by ading strict regulations, particularly on new construction, some businesses might find it cost prohibitive to go into business.

Instead, I hope you will look at more market oriented measures to achieve the same goals such as smart metering and allowing individual producers to recieve market prices for energy produced at an individuals house/business through wind, solar, etc. Prices are the ultimate incentive and by removing price distortions, the externalities of energy consumption can be eliminated.

Thank you for your time.

Sam Bixler

Nowakowski, Sonja

From: Eric @ Bluestone [eric@bluestonecinema.com]
Sent: Tuesday, November 24, 2009 12:24 AM
To: Nowakowski, Sonja
Subject: Energy Policy...

Sonja-

Thank you for soliciting public comment on this important issue.

I am the owner of Bluestone Technologies, a Montana leader in the design and installation of electronic energy conservation systems, AV systems, and smart grid compatible "smart home" systems. We have a showroom in Kalispell where we demonstrate a fully functional smart home system and explain to consumers the benefits of the smart grid and energy conservation.

We currently have over 30 homes in the Flathead Valley (most are vacation homes) that are using our technology to save $thousands on utility costs by putting the home into a "hibernate" mode when they are away and simply providing an in home display of real time energy usage. They have the added convenience of waking the house via an iPhone, Blackberry, or computer ahead of time so that they arrive to a warm and comfortable home.

Until recently these "smart homes" could only be installed in new construction and were too costly for the average home buyer, but now prices have come down significantly and they can be retrofitted in any home for less than $.50 per square foot.

We have demonstrated energy savings from 8-20% depending on the system installed and the consumers usage patterns. This obviously represents $16-40 saved per month for a utility customer who averages $200/month. Although this amount is minimal to the end user, the numbers become more profound when viewed in the context of an entire community over time. For example, if the average home uses 28 kwh per day and we save 10% community wide, that's a total reduction of 140,000 kwh per day for the Flathead Valley alone. Statewide the savings is equivalent to building a coal fired 600 megawatt power plant at a cost of $700,000,000.00. These numbers are hypothetical, but it demonstrates the significance of automated conservation.
Let me also point out that these smart systems minimize peak demand and help to level out base load.

There are many advantages to adopting smart grid/smart home technologies besides monetary. It encourages the investment and use of clean energies like wind and solar by providing a payback/credit for excess energy fed back into the grid.
Other benefits like the environment are obvious.

Electricity tends to always be the focus, but smart homes have a similar effect on natural gas and propane.
Most people agree that conservation is a good step forward, but the question is how do we make it happen in any meaningful way?

We face several hurdles:

1) The payoff for an individual home owner is many years which discourages the initial investment. As

demonstrated above, the payoff is much bigger community wide over a long period of time. Similar to building a power plant. But unlike a power plant, the smart grid becomes smarter and more efficient over time as newer smart grid compatible appliances become more prevalent. Like the internet, the smart grid will grow until it is part of our daily lives. But it will require an initial investment for the utility side infrastructure and an incentive for home owners to make their homes smart and energy efficient.

2) Utility companies must embrace the smart grid. Without the full deployment of utility side smart grid technology, true energy conservation
will be just a short fad like "Super Good Sense" and will have little effect on real energy usage community wide. Flathead Electric Coop is already working with other utilities to consider small scale smart grid deployments. A little encouragement will go a long way.

3) New homes must be required to have smart thermostats and smart switches ($85 each) on water heaters, hot tubs, and any installed appliances that require a 30 amp or greater service. (This would only add a few hundred dollars to the cost of a new home)

4) A properly executed low voltage installers license would be very beneficial for Montana.

Although there is much more I would like to add, I will save it for another time. It would be an honor to assist you in anyway I can while you are considering new energy policies for Montana.

Please don't hesitate to call on me.

Regards,

Eric J Edelen
Bluestone Technologies
www.bluestoneaudiovideo.com
406-885-7807

Nowakowski, Sonja

From: Clay Vincent [vincentc@co.hill.mt.us]
Sent: Friday, November 27, 2009 4:04 PM
To: Nowakowski, Sonja
Subject: energy efficiency

My office was passed this e-mail to see if I had any comment to make on these issues.
From a public and private standpoint, I really feel that there needs to be a lot of changes in the building codes. Energy efficiency for all new building needs and promoting conservation can be done by making people feel the difference in their pockets. Business is mostly based on profits and residential homes are built to meet peoples home living needs. Energy bills keep going up and even though we can insulate a hew home and put in a lot if neat energy saving devices, we still need the energy to operate all the lights and motors.
My wife and I installed 18 solar panels on the top of your garage about 2 years ago and are able to go just about 12 months without paying an electric bill. We received a net meter and on most sunny days this meter turns backwards because we use very little energy during the day because we are at work. At night the meter begins to turn the normal direction because we are using energy that we have stored through the solar panels all day. In eastern Montana we receive a lot of sunny days and I feel that all new houses should be required to install solar panel and have the cost added to their homeowner's loan. The cost is about $20,000 and there are a lot of rebates to reduce this initial cost. It adds value to the new home and everyday the sun is out, the homeowner is making or saving money from a free energy source. As a home owner I have seen a big difference in my attitude about leaving lights on or off. I feel it in my pocket now and it really makes a difference.
An extra $10-20 thousand on a $150- 300,000 loan is really nothing and just think how much energy is being saved each day from a free energy source. People will not do this easily by themselves, but if it was part of the building code, it would be accepted just like the electrical or plumbing regulations. The attitude of anyone who is using solar or wind for an energy source really changes once they can feel it in their pocket.
I really hope you will work this idea into any future energy policy, because oil and gas resources will not last forever and we must change at some point in time. Why not extend our oil and gas reserves for many more years just by using the sun light now. Our grandchildren of the future will really appreciate our wise decisions made today.

Clay Vincent, Sanitarian
Hill County Health and Planning
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Havre, MT 59501
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E-mail: vincentc@co.hill.mt.us

Nowakowski, Sonja

From: Ken Beiser [moonshadowbaba@yahoo.com]
Sent: Saturday, November 28, 2009 11:01 AM
To: Nowakowski, Sonja
Subject: state energy policy

Hello,
The first thing everyone should be thinking of is conservation. It is the easiest way to decrease energy use. We have built 2 very energy efficient homes in the last 20 years on our property. We face south so when we do get the little sun in the winter we derive energy from it. In the summer, our house feels like it is air conditioned because of the energy efficiency we have. It is not that difficult. We collect water from the roof in the summer for watering, etc. It is not that difficult. The problem is that most people do not care and are cheap and lazy. Unfortunately, that means there will have to be laws to force people to be smart. Someday, there will have to be laws around here about recycling also, like there are in other states. It will have to hit pocketbooks I guess. Unfortunately, also, is that my husband and I are way ahead of the incentives. The laws will have to have some common sense to them. There will be a lot of unhappy people who will not like to change or spend more money up front for the energy efficiency.
Thank you for listening, Janet Beiser, 376 Old Ranch Road, Whitefish, Montana

Nowakowski, Sonja

From: Zandy Sievers [zsievers@sustainablebuildingsystems.com]
Sent: Monday, November 30, 2009 1:12 PM
To: Nowakowski, Sonja
Subject: energy policy

Sonja,
As a home energy rater, green building verifier, and home energy auditor I probably have more stringent suggestions then some. Just to name a few suggestions - Blower Door testing should be required on all new construction to determine air quality and thermal bypass issues. All new construction should be required to use subsurface rain sensing irrigation or more beneficially native/xeriscape landscaping. Also Green Building certification goes largely unappreciated by state and federal government when it comes to tax incentives. California, New Mexico, and Colorado now offer incentives for Green Building certification we should follow suit in promoting more sensibly sited, energy efficient, durable, water and resource conservative, and healthy homes in our beautiful state.

Thanks,

Alexander Sievers (Zandy), RESNET Home Energy Rater, NorthWest Energy Star Homes Verifier, and NAHB Green Building Verifier Project Tech, Sustainable Building Systems, LLC 140 S. 4th St. W. Unit #2 Missoula, MT 59801
T/(406)531-3143
W/ www.sustainablebuildingsystems.com
E/zsievers@sustainablebuildingsystems.com

Nowakowski, Sonja

From: S MILLER [s2smiller5@imt.net]
Sent: Tuesday, December 01, 2009 9:55 AM
To: Nowakowski, Sonja
Cc: KRAYTON KERNS; KRAYTON KERNS; Beck, Paul
Subject: Energy Policy comments

Below are our comments on the last of three specific issues related to Montana's Energy Policy review for inclusion into you consideration with revisions of the State's Energy Policy:

1. Increasing energy efficiency standards for new construction

COMMENTS: We recommend maintaining the status quo as to not mandating efficiency standards, but providing recommended standards to be met --- **no new laws** requiring residents to meet energy efficiency standards. We DO NOT ADVOCATE additional State Government intervention in requiring consumers to meet energy efficiency standards. Market conditions will provide any incentive and guidance in new construction energy efficiency. When a business or residence is constructed and heating and/or electrical energy monthly bills are paid, the consumer will let their pocket book (expenses) drive the economic benefits of meeting energy efficiency needs. There is NO NEED FOR GOVERNMENT INTERVENTION to dictate standards. RECOMMENDATIONS can be provided based on regional locations for wall and ceiling insulation levels, but not demanded. Cities within Montana should be allowed the latitude of home rule and to govern as their constituents diem necessary, NOT THROUGH INTERVENTION BY HELENA.

The residents of Montana should be allowed the freedom and liberties to make their own decisions, regardless how foolish or costly. Owners of new construction for buildings and residential structures need to consider and provide to tenants/home owners the energy efficiency of the structure for consideration with information on the length of time for payback with higher efficiency standards versus lower efficiency standards. Providing this information will allow the consumer a complete understanding of the economic benefits to higher efficiency structures versus lower or minimal standards.

Home inspectors or business inspectors who are hired to determine the fitness of a structure for a purchaser can note the exceptional or substandard aspects of insulation and energy efficiency that the structure has to assist the purchaser additional information in their decision making process, and in determining the fair market value of the building/residence. Let the market drive consumers into the correct direction of energy efficiency, not government dictating required standards to be met. Inefficient structures will be difficult to sell and not sell at a premium price.

As previously discussed, providing RECOMMENDATIONS on energy efficiency standards for consumers to follow without mandated (NEW LAWS) on energy efficiency standards policed from Helena, is the preferred option for new construction.

2. Promoting energy efficiency incentives

COMMENTS: ANY GOVERNMENT INCENTIVE COMES AT A COST (EXPENSE) TO TAXPAYERS. This can be viewed as another example of redistribution of wealth from those with higher efficiency structures to those with lower efficient structures. ANY incentives should be driven by the market ON CONSUMERS, NOT BY GOVERNMENT INTERVENTION. If my neighbor wants to install a wind generator, ground heat pump, or extra insulation to their home, it should not be at my expense as a taxpayer by providing an incentive. It should be at their personal

expense given the benefit is to their direct energy bills, not my energy bills. I, as a taxpayer, should not be placed in a positions to pay higher taxes to support improved energy efficiency of others where I GET NO PERSONAL BENEFIT. Given I had a direct out of pocket expense for higher energy efficiency of my newly constructed house with no State energy efficiency incentives, why should I now be burdened with paying the additional cost for promoting energy efficiency to less efficient structures through taxpayer incentives at a cost to other Montana taxpayer residents?

Energy efficiencies should not need incentives from Helena to promote them. The advantages of increased energy efficiencies are intuitively obvious with lower monthly energy bills and that in-and-of-itself should be a large enough incentive to promote energy efficiencies without taxpayer supplied subsidies or incentives. If Wind generation was so great and a save all to the energy supply crisis, then it should be able to stand alone without incentives and subsidies; so too should energy efficient promotions without incentives. ALLOW THE MARKET CONDITIONS DRIVE CONSUMER SPENDING WITHOUT GOVERNMENT INTERVENTION FROM HELENA.

3. Promoting conservation

COMMENTS: Promoting conservation will not in-and-of-itself solve all the growing energy issues in Montana. We can't conserve our way out of load growth, population growth, and meeting a growing hunger for more energy, Statewide. The State is growing in population and load growth is a fact that needs to be met with real solutions, on imaginary hopes of conservation. Electrical energy generators need to be built to support capacity demands and energy demands. Wind energy provides energy with little to no capacity to the power system. WE CAN NOT CONSERVE OUR WAY OUT OF A NEED FOR ADDITIONAL ELECTRICAL OR OTHER STATE ENERGY NEEDS. Wind generators save only fuel costs, and coal, hydro (the purest form of solar energy), or nuclear energy generators need to be built to supply the capacity demand needs for when the wind fails to blow … unless the environmentalists want to conserve through NOT USING ANY ENERGY AND RETURN TO LIVING IN CAVES WITH STONE KNIVES AND STONE AXES.

Conservation with CFL lighting has a down sides with higher costs to consumers, additional mercury contamination in our dumps, and fails to consider the shorter bulb life, a result of cycling CFL bulbs on/off (that is less an issue with incandescent lights). Any promotion of conservation will come as an additional cost to taxpayers through bureaucracy and expenses to the State to support. Another cost that, as Montana taxpayers, we do not support.

We support smaller government and less intervention by Helena to the freedoms and liberties we all enjoy here in Montana. Promoting conservation sounds good, but is not practical or realistic.

Thanks for accepting our comments,

Sam & Selina Miller
Roberts, MT

Nowakowski, Sonja

From: Paul Martin [paulc_martin@yahoo.com]
Sent: Tuesday, December 08, 2009 11:47 AM
To: Nowakowski, Sonja
Subject: Energy Policy

12/7/2009

Dear Ms. Nowakowski,

First I would like to that you for the opportunity to weigh in on energy efficiency and conservation policy promotion. Tonight in Stanford, the temperature is expected to drop down to 25 degrees below zero. I am anxious about what could happen should we lose power. What if we lost it for a week? My wife and I are senior citizens living on a fixed budget. I depend on reliable electricity to support my breathing while I sleep. My home heating system relies upon electricity and will fail without it. This year's supply of our food is in the freezer and those stores could be lost. Our pipes could freeze. THE SCENARIO MAKES ME WONDER WHAT WE COULD HAVE DONE TO PREVENT SUCH A CATASTROPHIC OUTCOME? I think it is obvious that we need to change our energy production paradigms from fossil fuel to solar, wind, geothermal and hydro production.

Right now, private investment, power company dollars and government funds are being invested in large power projects costing millions, if not billions. Money may be spent on generating stations that face EPA restrictions and global warming protocols and never be allowed to be placed online at all. Clearly, this is mistaken policy. We can expect to spend way more and get way less for our investment dollar. (Figure the cost out in $Billions/MW!) Mining coal for example, lays waste to 16 tons of overburden for each ton of coal and costs us precious oil, gas and diesel resources to extract fossil fuels and to transport them to generating stations. Sequestration of carboniferous byproducts are both dollar and energy resource negative in that you will never get the value in energy production you lose to meet the requirements of an ever greening public demand. Add to that the fact that any fossil fuel plant may have a useful lifetime now of about 20 to 40 years after which the fuel will be mostly depleted and an ugly clean up site will remain. And that is just a few of the problems with fossil fuels. Don't even get me started on nuclear power as it represents maybe the most horrific of long term disastrous outcomes with tremendous waste of money and resources while extensive damage is done to the environment via extraction and waste disposal/management.

Of course we can minimize our own use of electricity and save power for others by so doing. And we do that every day. We can make our homes more efficient and, to the extent of affordability, we have done that already as well. I believe that part of our energy policy should be directed at solving our "emergency backup dilemma" in rural Montana. By so doing, we can feed overflow electricity back into the "grid." We can help the state meet the governor's goal of obtaining an ever increasing percentage of our power from renewable / green resources and last, but certainly not least, we can ease some of the anxiety faced by the more vulnerable of our state's population.

I picture a "pilot - project" installing solar panels on private rooftops, government building rooftops and central collection areas on open, publicly owned groundsites in rural Montana. My reasoning, in support of this project includes, but is not necessarily limited to the following: 1. Rural areas like the Judith Basin are the poorer per capita areas of the country; 2. Not only do we have wind, geothermal and hydro production opportunities but in the wide open spaces in the Big Sky we also have a lot of sunlight!; 3. We would put installers to work to support a photovoltaic production program; 4. We would grow the work base in each county; 5. We would meet the goal of government and private alternative energy share; 6. We may increase market demand for more solar technology (especially if this initiative were to "catch on"); 7. We would positively affect the jobs market in other "retro-fit" aspects of construction; 8. Private citizens and local governments could save on their energy costs; 9. Solar backup power in times of weather related power outage could save isolated communities like Stanford, and finally such a program may bring growth to dying communities attracting newcomers

impressed by their progressiveness. A positive and continuing return on the investment would be realized (in the form of renewable energy generation) immediately upon program completion. I estimate that each 2.5 kw solar array would cost about $9 to $10 thousand. And the costs for these arrays will drop based upon increased demand and production.

I believe, out here away from the center of "all that's happening" that we see many initiatives end up targeted towards the folks that really need them the least amount. Can you help us here by retargeting your energy policy? Can you send some state and federal funds out here instead of sequestering all the cash in Missoula, Great Falls, Helena, Billings metro areas? Can you think Solar? and eschew coal? Let me know what you think please.

Thank you very much for reading my letter. Paul Martin, Stanford, MT 59479

Nowakowski, Sonja

From: Dick Artz [Artzaugusta@3rivers.net]
Sent: Tuesday, December 08, 2009 7:14 PM
To: Nowakowski, Sonja
Subject: Interim energy

As a consumer-owner of my Sun River Elec. Cooperative, I am writing regarding your request for comment on conservation, energy efficiency & energy efficiency standards for new building construction. I am grateful for the Legislature's long history of preserving electric cooperatives' local control on government policies that affect my electric cooperative.
Although conservation & energy efficiency are very important, who pays for it is critical. Mandates that force my co-op to spend money on these programs-beyond its voluntary efforts-could easily raise my electric rates.
In my opinion, a cost-effective action is to address the problem of inadequate & poorly enforced energy efficiency standards for new construction.
Also, please keep in mind two other important considerations. First, not all buildings are heated by electricity, meaning the electricity provider is not the only energy provider. Second, the challenge of retrofitting existing homes & businesses that may have never conformed to energy-use construction standards of the day, let alone today's standards, is not one that should be shouldered by utility ratepayer. The question is whether it is an individual or a societal responsibility. If viewed as a societal responsibility, I believe government incentives, not mandates, are the least-regressive, most cost-effective solution. I also believe tax insentives don't help low income families,or elderly people.
Thank you for your kind consideration of my comments. I urge you to preserve local control by leaving energy-use actions affecting utilities in the hands of my electric cooperative.

Best Regards,
Richard Artz
P.O. Box 262
Augusta, Mt. 59410

Nowakowski, Sonja

From: Amy and Brian Frykman [frykmans@gmail.com]
Sent: Wednesday, December 09, 2009 8:35 AM
To: Nowakowski, Sonja
Subject: Suggestions for MT energy policy

Dear Ms. Sonja Nowakowski,

I understand the Energy and Telecommunications Interim Committee is reviewing state energy policy. I commend you for your efforts and thank you for the opportunity to briefly weigh in. It's -16 in Bozeman this morning, so energy is very much on my mind.

Here's the headline of my comments: **I would like to see the committee prioritize policies that help all Montanans use energy more efficiently**.

While I think it's tempting to always look for new and improved energy supplies, I think the real answer is right before us. We need to focus on doing more with less through energy efficiency. While individuals can make a difference on this front, the state has a real role to play in establishing efficiency standards for utilities and adopting building codes that ensure new buildings are constructed to be as energy efficient as possible. In addition, I would love to see the state offer more energy efficiency tax credits to encourage Montanans to do what's right and what's good for all of us.

These policy changes will pay dividends over time. I really encourage the committee to make energy efficiency the cornerstone of Montana's energy supply. All energy supplies have a cost, whether air and water pollution or damages to Montana's outstanding wildlife through habitat degradation. We will do ourselves and future generations a favor if we make energy efficiency our gold standard, thereby reducing future energy demand and the need for new energy supplies.

I thank you for the opportunity to comment and wish you luck as you conduct your review.

Sincerely,

Amy Frykman
121 Arcadia Lane
Bozeman, MT 59715
406.579.0944
frykmans@gmail.com

Nowakowski, Sonja

Subject: FW: Energy and Telecommunications Interim Committee

From: Gene & Linda Sentz [mailto:friends@3rivers.net]
Sent: Wednesday, December 09, 2009 9:22 AM
To: 'snowakowski@mt.gov'
Subject: Energy and Telecommunications Interim Committee

Dear Committee,

I work as a hospice nurse in north central Montana. Recently I saw a patient living in a trailer in the Vaughan community. Because of stimulus money, this trailer was finally becoming energy efficient and providing huge cost savings and a safer environment for this family.

I believe that Montana's state energy policy should focus on energy efficiency as the base for any decisions. Choosing energy efficiency for utilities, stronger building codes, and increased money spent on opportunities for Montana residents to choose efficiency should be included in your decisions.

I think we need an energy efficiency standard for utilities, and a real commitment from utilities to serve as an example and support to encourage reduction of energy use. As we look toward the future, stronger building codes that focus on energy conservation will not only save energy, but increase the value of any building and home. Providing education, living examples, and cost opportunities would encourage Montanans to choose efficiency, and Northwestern Energy has a model program as it visits rural communities to offer this service. Also, please consider increasing the state energy efficiency tax credit that would match the federal limit of $5,000.

Thanks for your work to make Montana a model for improving energy efficiency.

Respectfully,
Linda Sentz
PO Box 763
320 2nd St. S.W.
Choteau MT 59422

Nowakowski, Sonja

From: Jeff Smith [jsmith@wildernesswatch.org]
Sent: Wednesday, December 09, 2009 3:10 PM
To: Nowakowski, Sonja
Subject: The Importance of Energy Efficiency

I understand the energy and telecommunications interim committee of the Montana Legislature is asking for public comments on the state's energy policy.

1. Help for new home owners.
My wife and I are building a home in Missoula. We understand the necessity of paying more for better insulation, more energy efficient appliances, and a highly efficient furnace to heat our modest 1,800-square-foot home. We also considered solar and wind and geothermal energy but found them, for us, prohibitively expensive.

For new home construction, it would appear that the state could a.) adopt minimal standards of insulation and efficiency and b.) offer incentives to home-owners to install extremely high efficiency windows, doors, insulation, heating sources, and appliances.

We did the best we could with our budget, but, with relatively small tax incentives and stronger building codes emphasizing optimal insulation and energy efficient components, we could have done even better.

2. Energy efficiency standards for utilities Utilities using Montana's natural resources should have the world's most efficient power plants and should invest in increase the energy efficiency in Montana's homes and businesses.

3. USB and Efficiency Tax Credits for Renovations Montana utilities should provide the Universal Systems Benefits (USB) policy, where low-income owners and renters can weatherize their dwellings, and where free energy audits, coupons and rebates for efficiency improvements at home are readily available and marketed.
The legislature should ensure that all utilities provide effective programs for their customers. Additionally, residential consumers would benefit from an increase in the state energy efficiency tax credit. The current tax credit is for 25% of the investment and cannot exceed $500. The legislature should consider raising the limit on the Montana tax credit to match the federal limit of $5,000 (i.e.
a 25% tax credit not to exceed $1,250).

Jeff Smith
105 Channel Drive
Missoula, MT 59804

Nowakowski, Sonja

From: dekort@montanasky.com
Sent: Thursday, December 10, 2009 12:02 AM
To: Nowakowski, Sonja
Subject: Energy Policy

The Energy and Telecommunications Interim Committee (ETIC) of the Montana Legislature is asking the public to weigh in on energy issues it's examining as part of a review of state energy policy. I understand that the committee members want to hear about specific changes in state law that the public believes are needed in these areas, as well as any other recommendations regarding them.

I urge you to make energy efficiency the cornerstone of the state's energy policy, and encourage you to adopt the following:

1. Energy efficiency standard for utilities,

2. Building codes, and

3. Increased state energy efficiency tax credits.

Thanks, Linda de Kort, 1290 Lost Creek Drive, Kalispell, Montana 59901

Nowakowski, Sonja

From: Bonnie Eldredge [edge3115@bresnan.net]
Sent: Thursday, December 10, 2009 6:04 AM
To: Nowakowski, Sonja
Subject: Energy Policy

Hello!! It is encouraging that there is consideration of changes for the utility generation in Montana, which pays more for its service than any surrounding state. There have to be better ways.

1. Energy efficiency must be the first goal of any change. Updated technology exists which could drastically improve the costs of energy delivery. That efficiency must extend to all areas of energy usage from the supplier, to home and business use of that energy. It must be a first consideration.

2. Building codes must ensure the safety and improvement of new and existing structures. It is difficult to believe that up to this time there are not proper energy building codes in place.

3. Improved tax incentives from the state will pave the way for more safe and efficient use of energy in Montana. Currently, one local supplier does provide energy audits and recommendations which are helpful. These audits can be more generally available in the state and people will more readily accept recommendations with incentives.

I feel that the Public Service Commission has not been the best advocate for the people of Montana. The PSC exists to serve the needs of the governed.
I suggest a citizen audit team to determine what the best use of the PSC's authority in the past has been and what it could best provide Montana citizens in the future. At the moment the utilities have more influence on the PSC than the citizenry.

Thanks for accepting my comments. Bonnie Eldredge, 3115 Harrow Dr.
Billings, Mt. 59102

Nowakowski, Sonja

From: Judy Matson [judymatson@bresnan.net]
Sent: Thursday, December 10, 2009 7:04 AM
To: Nowakowski, Sonja
Cc: 'Carol Williams'; Tim Furey
Subject: Energy Policy

Dear Members of the Energy and Telecommunications Interim Committee:

Energy-efficient technologies exist today that could save the state between 25 and 30 percent on energy spending through 2030 and reduce the need for expensive new power plants. Energy Efficiency should be the cornerstone of Montana's energy policy. I urge you to adopt the following:

1. Energy efficiency standard for utilities

Montana should establish an energy efficiency standard for utilities. Such a standard would ensure that all major gas and electric power companies are tapping into Montana's reservoir of energy savings, from making power plants more efficient to helping households and businesses reduce energy use. I applaud energy saving measures offered by utilities and would like to see more being done!

2. Building codes

Montana can protect businesses and homeowners from paying for wasted energy and help them increase property values by setting and consistently applying strong building codes. An “affordable” home which is an energy-waster is a cruel hoax for homebuyers who can’t afford the utilities after they are saddled with mortgage payments. It’s bad for people and bad for our environment.

3. Increased state energy efficiency tax credits

Montana can provide better opportunities for its residents to choose efficiency through USB programs and energy efficiency tax credits. Some utilities already serve their customers through the Universal Systems Benefits (USB) policy, providing low-income home weatherization, free energy audits, as well as coupons and rebates for efficiency improvements at home, from light bulbs to insulation. The legislature should ensure that **all** utilities provide effective programs for their customers.

Additionally, residential consumers would benefit from an increase in the state energy efficiency tax credit. The current tax credit is for 25% of the investment and cannot exceed $500. The legislature should consider raising the limit on the Montana tax credit to match the federal limit of $5,000 (i.e. a 25% tax credit not to exceed $1,250).

Montanans pay more for electricity than any other state in the region. It is time to put energy efficiency technology to work to help Montanans reduce energy use and lower monthly bills.

Thank you,

Judy Matson
258-6335

PO Box 308
Milltown MT 59851

PUBLIC SERVICE COMMISSION
STATE OF MONTANA

1701 Prospect Avenue
PO Box 202601
Helena, MT 59620-2601
Voice: 406.444.6199
Fax #: 406.444.7618
http://www.psc.mt.gov
E-Mail: psc@mt.gov

To: Energy & Telecommunications Interim Committee

From: Public Service Commission

Date: December 9, 2009

Re: Comments on energy policy issues – Round 3

The Public Service Commission (PSC) submits the following comments on the three specific energy policy issues identified by the Energy & Telecommunications Interim Committee (ETIC) in its November 20, 2009 request for comments.

Issue 1: Increasing energy efficiency standards for new construction

The PSC supports strengthening the energy conservation provisions in Montana's building codes to achieve optimal energy efficiency in newly constructed buildings. Increased energy efficiency standards for new construction will have a direct positive effect on Montanans living and working in new buildings because their energy costs will be reduced. In addition, more energy efficient buildings will reduce the pace at which new generation and transmission capabilities will have to be secured. Advances in technology continue to make the implementation of energy conservation measures more cost effective as well, allowing people to save more money more quickly. At the June 2009 meeting of the Montana Building Codes Council where the Council was considering a proposal to update state building codes to incorporate the 2009 International Energy Conservation Code (IECC), the PSC commented in support of an alternative package of recommendations for revising building codes in a way that reflected the 2009 IECC but also included additional energy-conservation measures.

Recommendation: The PSC recommends that ETIC support, in its state energy policy and possibly in proposed legislation, increased energy efficiency standards for new construction that will result in long-term energy and economic benefits. The PSC adds that it is important that construction standards be uniformly and consistently enforced on a statewide basis.

Issues 2 & 3: Promoting energy efficiency incentives and conservation

Improving energy efficiency and conservation is a critical element of a sensible state energy policy. The benefits of energy efficiency and conservation are well known and include: reducing energy consumption, thereby reducing the need to acquire more expensive supply resources; reducing air pollution and carbon emissions; and promoting energy reliability and security. The issue report prepared for ETIC by Sonja Nowakowski provides committee members with a thorough background on these topics and a summary of current energy efficiency and conservation activities in Montana as well as existing statutory requirements. The PSC will not repeat that information here, and instead will focus its comments on regulatory issues related to energy efficiency, conservation and demand-side management (DSM).

Existing Montana law generally provides the PSC with the direction, flexibility and authority to implement and oversee the energy efficiency and DSM activities of regulated utilities in the public interest. Those activities include those described below.

Resource planning

State law and the PSC through its integrated resource planning and resource procurement rules have long recognized the importance of electric utilities' acquisition of demand-side resources as a way to meet their load requirements at the lowest long-term total cost. Regulated electric utilities consider demand- and supply-side resources on an equivalent basis when planning for resources to serve their loads. PSC administrative rules direct regulated electric utilities to actively pursue and acquire all cost-effective energy conservation as part of their plans for meeting future loads. The PSC's resource planning guidelines include DSM and energy efficiency in the definition of "electricity supply resource."

NorthWestern Energy (NWE) and Montana-Dakota Utilities Co. (MDU) submit their electricity resource plans for PSC comment every two years as required by state law and PSC rule. In addition, NWE submits for PSC comment biennial natural gas supply resource plans that must consider demand-side as well as supply-side resources.

Rates

Existing law provides the PSC with sufficient authority to consider and implement a range of ratemaking policies to facilitate utilities' DSM efforts. The PSC allows full recovery in rates of regulated utilities' prudently incurred costs for acquiring demand-side resources. The PSC has supported utilities' acquisition of cost-effective DSM by allowing them to recover program costs through their monthly trackers (subject to annual true-up) and to expense DSM investments. The PSC has adopted a general policy and specific measures to align utility financial incentives with promoting energy efficiency. To remove the financial disincentive associated with reduced sales that accompany DSM acquisition, the PSC has implemented lost transmission and distribution revenue recovery mechanisms for NWE and MDU. The PSC has not adopted decoupling per se, but when it does consider it, the PSC will do so in a proceeding that provides an opportunity for interested parties to provide information and suggest courses of action before the PSC makes its decision.

Utilities' DSM programs

The PSC oversees the electric and natural gas DSM programs operated by NWE, MDU and Energy West Montana, including their DSM activities funded by their legislatively mandated Universal System Benefits (USB) programs. (The public purpose programs funded by USB charges include cost-effective energy conservation, low-income customer weatherization, research and development programs and market transformation related to energy conservation and renewables.) The PSC's oversight occurs in individual utility rate proceedings, in their USB-related cases, and, for MDU and NWE, when considering their electricity resource plans.

Energy efficiency-related policy initiatives

The PSC believes it has the general authority under existing state law to address the merits of implementing new energy efficiency-related initiatives that would involve regulated utilities, such as smart grid deployment, demand response, decoupling, and energy efficiency resource standards. The PSC's contested case process, which allows for full participation by all parties, provides for a thorough vetting of the complex technical and legal issues related to these proposals and results in a reasoned PSC decision based on the evidence in the proceeding. The PSC is also able to conduct informal proceedings, such as workshops or informal comment opportunities, as an information gathering tool prior to opening a formal docket. These PSC processes lend themselves to more in-depth and comprehensive consideration of proposals for increasing energy efficiency than does the legislative process.

Recommendations: The current state energy policy goal statement at § 90-4-1001(1), MCA prominently includes promotion of energy efficiency and conservation. The PSC recommends that a revised state energy policy continue to prominently feature energy efficiency and conservation as key elements. The PSC believes it is good public policy to require utilities to aggressively acquire cost-effective energy efficiency and conservation and remove disincentives that may stand in the way of their doing so. It is also good public policy to ensure that new energy efficiency policy proposals receive full consideration by the state agency with the technical expertise and experience to thoroughly address all the issues related to the proposals before implementing them. In the case of energy efficiency proposals affecting regulated utilities, that agency is the PSC.

Existing state law provides the PSC with the necessary authority, flexibility and discretion to implement and oversee regulated utilities' energy efficiency and DSM activities. If new energy efficiency initiatives that involve regulated utilities are proposed in legislation, the PSC recommends the legislation be limited to broad policy direction, with general authority provided to the PSC to implement the policy in the public interest.

Finally, the PSC recommends that ETIC refrain from proposing legislation or revising the state energy policy in any way that would restrict or constrain the PSC's ability to reasonably and thoroughly oversee and address the energy efficiency and conservation activities of regulated utilities.

Thank you for the opportunity to comment.

Nowakowski, Sonja

From: scott krauszer [skrauszer@bresnan.net]
Sent: Thursday, December 10, 2009 9:51 AM
To: Nowakowski, Sonja
Subject: energy efficiency

Sonja:

I know alternative energy sources are not going to completely replace our reliance on coal or nuclear energy, but looking into and supporting alternative forms of energy could drastically reduce our costs and emmissions in Montana.

I ask you to strongly consider taking the steps to creating a Montana that is the forerunner in sources of energy consumption such as solar and wind power in your commitee meeting on January 14th. Keep up the good work.

Thanks,
Scott Krauszer

Nowakowski, Sonja

From: Nellieisrael@aol.com
Sent: Thursday, December 10, 2009 8:03 PM
To: Nowakowski, Sonja
Subject: Energy efficiency

Please support energy efficiency in Montana!
Nellie Israel
PO Box 76
Joliet, MT 59041
406.962.3530

Dear ETIC Committee,

Energy efficient policies need to be the cornerstone of Montana's energy future.

First, our utilities need to take the lead in this future by following energy efficient practices and by providing opportunities for households and businesses to reduce energy use.

Second, building codes need to reflect the current technologies and products available in energy efficiency so homes and businesses are built right from the start.

Finally, MT tax credit limits need to match the federal tax credit limits, and ALL utilities need to provide programs to promote and encourage energy efficiency.

Thanks for your time,
Sandra J. Abraham

Nowakowski, Sonja

From: Connie Keogh [conkeogh@yahoo.com]
Sent: Friday, December 11, 2009 6:40 AM
To: Nowakowski, Sonja
Subject: Energy Efficiency

Interim Energy Committee Members,

Thank you for this opportunity to write to you and request that as members of this very important committee that you will recognize the importance of incorporation of energy efficiency measures at our state level.

Energy efficiency measures save money for private individuals and taxpayers. Energy efficiency practices offer an opportunity to save the state between 25 and 30 percent on energy spending through 2030. Energy efficiency standards reduce the need for expensive power plants. The implementation of energy efficiency projects creates local jobs.

At your meeting in January, please consider the following:

Mandate an energy efficiency standard for utilities. This would ensure that gas and electric companies would create measurable energy saving goals.

Establish building codes that set the bar for energy efficiency of new home and other buildings. Every Montana homebuyer has the right to be guaranteed that their new home meets high efficiency standards. Schools and other public buildings that are built with energy efficiency standards save taxpayers money.

Create USB programs and energy efficiency tas credits, so that Montana can provide better opportunities for individuals to choose energy efficiency. Utility companies should provide effective programs for their customers. Create tax credits to match the federal level.

Thank you for this opportunity to submit my comments.

Sincerely,

Connie Keogh

P.O. Box 722

Absarokee MT 59001

Nowakowski, Sonja

From: Cheryl Carlson [ccarlson@itsTriangle.com]
Sent: Friday, December 11, 2009 10:21 AM
To: Nowakowski, Sonja
Cc: gary@mtco-ops.com

Dear Interim Energy Committee Members,

As a consumer-owner of my electric cooperative, I am writing regarding your request for comment on conservation, energy efficiency and energy efficiency standards for new building construction. I am grateful for the Legislature's long history of preserving electric cooperatives' local control on government policies that affect my electric cooperative.

Although conservation and energy efficiency are very important, who pays for it is critical. Mandates that force my co-op to spend money on these programs – beyond its voluntary efforts – could easily raise my electric rates.

In my opinion, a cost-effective action is to address the problem of inadequate and poorly enforced energy efficiency standards for new construction.

Also, please keep in mind two other important considerations. First, not all buildings are heated by electricity, meaning the electricity provider is not the only energy provider. Second, the challenge of retrofitting existing homes and businesses that may have never conformed to energy-use construction standards of the day, let alone today's standards, is not one that should be shouldered by utility ratepayers. The question is whether it is an individual or a societal responsibility. If viewed as a societal responsibility, I believe government incentives, not mandates, are the least-regressive, most cost-effective solution.

Thank you for your consideration of my comments. I urge you to preserve local control by leaving energy-use actions affecting utilities in the hands of my electric cooperative.

Sincerely,
Cheryl Carlson
P. O. Box 2103
Havre MT 59501

Nowakowski, Sonja

From: Diane Kalvoda [dianek@lyrec.com]
Sent: Friday, December 11, 2009 10:32 AM
To: Nowakowski, Sonja
Cc: 'Gary Wiens'
Subject: Conservation/energy efficiency standards

Dear Interim Energy Committee Members,

As a consumer-owner of my electric cooperative, I am writing regarding your request for comment on conservation, energy efficiency and energy efficiency standards for new building construction. I am grateful for the Legislature's long history of preserving electric cooperatives' local control on government policies that affect my electric cooperative.

Although conservation and energy efficiency are very important, who pays for it is critical. Mandates that force my co-op to spend money on these programs – beyond its voluntary efforts – could easily raise my electric rates.

In my opinion, a cost-effective action is to address the problem of inadequate and poorly enforced energy efficiency standards for new construction.

Also, please keep in mind two other important considerations. First, not all buildings are heated by electricity, meaning the electricity provider is not the only energy provider. Second, the challenge of retrofitting existing homes and businesses that may have never conformed to energy-use construction standards of the day, let alone today's standards, is not one that should be shouldered by utility ratepayers. The question is whether it is an individual or a societal responsibility. If viewed as a societal responsibility, I believe government incentives, not mandates, are the least-regressive, most cost-effective solution.

Thank you for your kind consideration of my comments. I urge you to preserve local control by leaving energy-use actions affecting utilities in the hands of my electric cooperative.

Best Regards,

Diane Kalvoda
Sidney, MT

Nowakowski, Sonja

From: Mike Kays [mckays50@midrivers.com]
Sent: Friday, December 11, 2009 11:16 AM
To: Nowakowski, Sonja
Cc: Gary Wiens
Subject: Comments on conservation, energy efficiency and energy efficiency standards for new building construction.

Dear Interim Energy Committee Members,

As a consumer-owner of my electric cooperative, I am writing regarding your request for comment on conservation, energy efficiency and energy efficiency standards for new building construction. I am grateful for the Legislature's long history of preserving electric cooperatives' local control on government policies that affect my electric cooperative.

Although conservation and energy efficiency are very important, who pays for it is critical. Mandates that force my co-op to spend money on these programs – beyond its voluntary efforts – could easily raise my electric rates.

In my opinion, a cost-effective action is to address the problem of inadequate and poorly enforced energy efficiency standards for new construction.

Also, please keep in mind two other important considerations. First, not all buildings are heated by electricity, meaning the electricity provider is not the only energy provider. Second, the challenge of retrofitting existing homes and businesses that may have never conformed to energy-use construction standards of the day, let alone today's standards, is not one that should be shouldered by utility ratepayers. The question is whether it is an individual or a societal responsibility. If viewed as a societal responsibility, I believe government incentives, not mandates, are the least-regressive, most cost-effective solution.

Thank you for your kind consideration of my comments. I urge you to preserve local control by leaving energy-use actions affecting utilities in the hands of my electric cooperative.

Best regards,

Mike C. Kays
Richey, MT

Nowakowski, Sonja

From: John Sokoloski [gwec@midrivers.com]
Sent: Friday, December 11, 2009 10:47 AM
To: Nowakowski, Sonja
Cc: Gary Wiens
Subject: Comments

Dear Interim Energy Committee Members,

As a consumer-owner of my electric cooperative, I am writing regarding your request for comment on conservation, energy efficiency and energy efficiency standards for new building construction. I am grateful for the Legislature's long history of preserving electric cooperatives' local control on government policies that affect my electric cooperative.

Although conservation and energy efficiency are very important, who pays for it is critical. Mandates that force my co-op to spend money on these programs – beyond its voluntary efforts – could easily raise my electric rates.

In my opinion, a cost-effective action is to address the problem of inadequate and poorly enforced energy efficiency standards for new construction.

Also, please keep in mind two other important considerations. First, not all buildings are heated by electricity, meaning the electricity provider is not the only energy provider. Second, the challenge of retrofitting existing homes and businesses that may have never conformed to energy-use construction standards of the day, let alone today's standards, is not one that should be shouldered by utility ratepayers. The question is whether it is an individual or a societal responsibility. If viewed as a societal responsibility, I believe government incentives, not mandates, are the least-regressive, most cost-effective solution.

Thank you for your kind consideration of my comments. I urge you to preserve local control by leaving energy-use actions affecting utilities in the hands of my electric cooperative.

Best Regards,

John Sokoloski, Wibaux MT

Nowakowski, Sonja

From: kevin.frost@farmersinsurance.com
Sent: Friday, December 11, 2009 10:51 AM
To: Nowakowski, Sonja
Subject: State energy policy

Dear Energy Committee Members,

As a consumer-owner of my electric cooperative, I am writing regarding your request for comment on conservation, energy efficiency and energy efficiency standards for new building construction. I am grateful for the Legislature's long history of preserving electric cooperatives' local control on government policies that affect my electric cooperative.

Although conservation and energy efficiency are very important, who pays for it is critical. Mandates that force my co-op to spend money on these programs – beyond its voluntary efforts – could easily raise my electric rates. In my opinion, a cost-effective action is to address the problem of inadequate and poorly enforced energy efficiency standards for new construction.

Also, please keep in mind two other important considerations. First, not all buildings are heated by electricity, meaning the electricity provider is not the only energy provider. Second, the challenge of retrofitting existing homes and businesses that may have never conformed to energy-use construction standards of the day, let alone today's standards, is not one that should be shouldered by utility ratepayers. The question is whether it is an individual or a societal responsibility. If viewed as a societal responsibility, I believe government incentives, not mandates, are the least-regressive, most cost-effective solution.

Thank you for your kind consideration of my comments. I urge you to preserve local control by leaving energy-use actions affecting utilities in the hands of my electric cooperative.

Best Regards,

Kevin Frost
Corvallis, MT

Nowakowski, Sonja

From: Marcella Holden [mholden@itsTriangle.com]
Sent: Friday, December 11, 2009 1:19 PM
To: Nowakowski, Sonja
Cc: gary@mtco-ops.com
Subject: Co-op concerns over energy issues

Dear Interim Energy Committee Members,

As a consumer-owner of my electric cooperative, I am writing regarding your request for comment on conservation, energy efficiency and energy efficiency standards for new building construction. I am grateful for the Legislature's long history of preserving electric cooperatives' local control on government policies that affect my electric cooperative.

Although conservation and energy efficiency are very important, who pays for it is critical. Mandates that force my co-op to spend money on these programs – beyond its voluntary efforts – could easily raise my electric rates.

In my opinion, a cost-effective action is to address the problem of inadequate and poorly enforced energy efficiency standards for new construction.

Also, please keep in mind two other important considerations. First, not all buildings are heated by electricity, meaning the electricity provider is not the only energy provider. Second, the challenge of retrofitting existing homes and businesses that may have never conformed to energy-use construction standards of the day, let alone today's standards, is not one that should be shouldered by utility ratepayers. The question is whether it is an individual or a societal responsibility. If viewed as a societal responsibility, I believe government incentives, not mandates, are the least-regressive, most cost-effective solution.

Thank you for your kind consideration of my comments. I urge you to preserve local control by leaving energy-use actions affecting utilities in the hands of my electric cooperative.

Best Regards,

Marcella Holden

Hill County Electric Coop.
Havre

Nowakowski, Sonja

From: Chet McWhorter [chetm@ravallielectric.com]
Sent: Friday, December 11, 2009 2:24 PM
To: Nowakowski, Sonja
Cc: gary@mtco-ops.com
Subject: Energy Policy

Dear Interim Energy Committee Members,

As a consumer-owner of my electric cooperative, I am writing regarding your request for comment on conservation, energy efficiency and energy efficiency standards for new building construction. I am grateful for the Legislature's long history of preserving electric cooperatives' local control on government policies that affect my electric cooperative.

Although conservation and energy efficiency are very important, who pays for it is critical. Mandates that force my co-op to spend money on these programs – beyond its voluntary efforts – could easily raise my electric rates.

In my opinion, a cost-effective action is to address the problem of inadequate and poorly enforced energy efficiency standards for new construction.

Also, please keep in mind two other important considerations. First, not all buildings are heated by electricity, meaning the electricity provider is not the only energy provider. Second, the challenge of retrofitting existing homes and businesses that may have never conformed to energy-use construction standards of the day, let alone today's standards, is not one that should be shouldered by utility ratepayers. The question is whether it is an individual or a societal responsibility. If viewed as a societal responsibility, I believe government incentives, not mandates, are the least-regressive, most cost-effective solution.

Thank you for your kind consideration of my comments. I urge you to preserve local control by leaving energy-use actions affecting utilities in the hands of my electric cooperative.

Best Regards,

Chet McWhorter, Hamilton, MT

Nowakowski, Sonja

From: Phyllis Anderson [pwandrsn@centurytel.net]
Sent: Friday, December 11, 2009 4:10 PM
To: Nowakowski, Sonja
Cc: gary@mtco-ops.com
Subject: Re: conservation, energy efficiency & energy efficiency standards for new construction

Dear Interim Energy Committee Members

I am a consumer-owner of my electric cooperative, Flathead Electric. You have requested comments on conservation, energy efficiency and energy efficiency standards for new building construction. The Legislature has a long history of preserving electric cooperatives' local control on government policies that affect my electric cooperative. I feel sure that you will continue this in the future.

I know that conservation and energy efficiency are very important. The problem is "Who pays for it?" When we built our home in 1995 we built a Super Good Sense Home with a Ground Source Heat Pump. We took this as our personal responsibility and have seen the result in lower energy bills. Mandates that force my co-op to spend money on conservation and energy efficiency – beyond what they are already doing voluntarily – could easily raise my electric rates. This would not be fair.

There needs to be a cost-effective action to address the problem of inadequate and poorly enforced energy efficiency standards for new construction.

Also, be sure to consider that not all buildings are heated by electricity – so the electricity provider is not the only energy provider. The second consideration is the challenge of bringing old construction up to today's standards for energy use is not something that should be borne by utility ratepayers. I guess it comes down to should the responsibility for this be individual or society. If it is Society then perhaps government incentives, and not mandates, may be the most cost-effective solution.

Thank you for considering my opinion. I urge you to preserve local control and leave energy-use actions affecting utilities in the hands of my electric cooperative.

Sincerely,

Phyllis Anderson
Bigfork, Montana

Nowakowski, Sonja

From: Ron Trippet [trippetsprinting@mtdig.net]
Sent: Friday, December 11, 2009 4:48 PM
To: Nowakowski, Sonja; trippetsprinting@mtdig.net
Cc: gary@mtco-ops.com
Subject: RE: Legislature interim energy committee

December 11, 2009
Dear Energy Committee Members,

As a consumer-owner of my flathead electric cooperative, I am writing regarding your request for comment on conservation, energy efficiency and energy efficiency standards for new building construction thru out our great state of Montana.

Although conservation and energy efficiency are very important, who pays for it is critical. Mandates that force my co-op here in Kalispell to spend money on these programs – beyond its voluntary efforts will easily raise my electric rates.

In my opinion, a cost-effective action is to address the problem of inadequate and poorly enforced energy efficiency standards for new construction.

Also, please keep in mind two other important considerations. First, not all buildings are heated by electricity, meaning the electricity provider is not the only energy provider. Second, the challenge of retrofitting existing homes and businesses that may have never conformed to energy-use construction standards of the day, let alone today's standards, is not one that should be shouldered by utility ratepayers like myself. The question is whether it is an individual or a societal responsibility. If viewed as a societal responsibility, I believe government incentives, not mandates, are the least-regressive, most cost-effective solution.

Thank you for your kind consideration of my comments. I urge you to preserve local control by leaving energy-use actions affecting utilities in the hands of my electric cooperative here in Kalispell.

Best Regards,
Ron Trippet,
Trippet's Printing,
a 3rd generation Printing Business since 1933
406-752-9000

Nowakowski, Sonja

From: Stu & Leslie Smith [lazyd3@mtintouch.net]

Sent: Friday, December 11, 2009 7:02 PM

To: Nowakowski, Sonja

Cc: gary@mtco-ops.com

Subject: Comment on conservation,etc. for new building construction

Dear Interim Energy Committee Members,

As a consumer-owner of my electric cooperative, I am writing regarding your request for comment on conservation, energy efficiency and energy efficiency standards for new building construction. I am grateful for the Legislature's long history of preserving electric cooperatives' local control on government policies that affect my electric cooperative.

Although conservation and energy efficiency are very important, who pays for it is critical. Mandates that force my co-op to spend money on these programs - beyond its voluntary efforts - could easily raise my electric rates.

In my opinion, a cost-effective action is to address the problem of inadequate and poorly enforced energy efficiency standards for new construction.

Also, please keep in mind two other important considerations. First, not all buildings are heated by electricity, meaning the electricity provider is not the only energy provider. Second, the challenge of retrofitting existing homes and businesses that may have never conformed to energy-use construction standards of the day, let alone today's standards, is not one that should be shouldered by utility ratepayers. The question is whether it is an individual or a societal responsibility. If viewed as a societal responsibility, I believe government incentives, not mandates, are the least-regressive, most cost-effective solution.

Thank you for your kind consideration of my comments. I urge you to preserve local control by leaving energy-use actions affecting utilities in the hands of my electric cooperative

Sincerely,
Stuart Smith
Rudyard, MT 59540

Nowakowski, Sonja

From: Patty [pattym@wb.midrivers.com]

Sent: Friday, December 11, 2009 7:47 PM

To: Nowakowski, Sonja

Cc: gary@mtco-ops.coom

Dear Interim Energy Committee Members,

As a consumer-owner of my electric cooperative, I am writing regarding your request for comment on conservation, energy efficiency and energy efficiency standards for new building construction. I am grateful for the Legislature's long history of preserving electric cooperatives' local control on government policies that affect my electric cooperative.

Although conservation and energy efficiency are very important, who pays for it is critical. Mandates that force my co-op to spend money on these programs – beyond its voluntary efforts – could easily raise my electric rates.

In my opinion, a cost-effective action is to address the problem of inadequate and poorly enforced energy efficiency standards for new construction.

Also, please keep in mind two other important considerations. First, not all buildings are heated by electricity, meaning the electricity provider is not the only energy provider. Second, the challenge of retrofitting existing homes and businesses that may have never conformed to energy-use construction standards of the day, let alone today's standards, is not one that should be shouldered by utility ratepayers. The question is whether it is an individual or a societal responsibility. If viewed as a societal responsibility, I believe government incentives, not mandates, are the least-regressive, most cost-effective solution.

Thank you for your kind consideration of my comments. I urge you to preserve local control by leaving energy-use actions affecting utilities in the hands of my electric cooperative.

Best Regards,

Dick & Patty Malcom Baker, MT

Nowakowski, Sonja

From: Gil Jordan [ontherun@aboutmontana.net]
Sent: Saturday, December 12, 2009 9:49 AM
To: Nowakowski, Sonja
Subject: Energy policy

Energy efficiency should be the cornerstone of the state's energy policy, and the Committee should adopt the following:

1. Energy efficiency standard for utilities,

2. Building codes that require energy efficiency, and

3. Increased state energy efficiency tax credits.

It makes economic, as well as environmental, sense.

Thank you,

Gil Jordan & Kim Pinter

Coram, MT

Nowakowski, Sonja

From: Jeri Dobrowski [skibaux@wb.midrivers.com]
Sent: Saturday, December 12, 2009 3:41 PM
To: Nowakowski, Sonja
Cc: gary@mtco-ops.com
Subject: Energy efficiency standards for new building construction

Dear Interim Energy Committee Members,
As a consumer-owner of my electric cooperative, I am writing regarding your request for comment on conservation, energy efficiency and energy efficiency standards for new building construction. I am grateful for the Legislature's long history of preserving electric cooperatives' local control on government policies that affect my electric cooperative.

Although conservation and energy efficiency are very important, who pays for it is critical. Mandates that force my co-op to spend money on these programs – beyond its voluntary efforts – could easily raise my electric rates.

In my opinion, a cost-effective action is to address the problem of inadequate and poorly enforced energy efficiency standards for new construction.

Also, please keep in mind two other important considerations. First, not all buildings are heated by electricity, meaning the **electricity provider is not the only energy provider**. Second, the challenge of retrofitting existing homes and businesses that may have never conformed to energy-use construction standards of the day, let alone today's standards, is not one that should be shouldered by utility ratepayers. The question is whether it is an individual or a societal responsibility. If viewed as a societal responsibility, I believe government incentives, not mandates, are the least-regressive, most cost-effective solution.

Thank you for your kind consideration of my comments. I urge you to preserve local control by leaving energy-use actions affecting utilities in the hands of my electric cooperative.

Best Regards,

Jeri L. Dobrowski
1471 Carlyle Road S
Wibaux, MT 59353

Nowakowski, Sonja

From: Norman A. Bishop [nabishop@q.com]
Sent: Saturday, December 12, 2009 4:42 PM
To: Nowakowski, Sonja
Subject: Comments for the January 14 meeting of the Energy & Telecomm. Interim Comm.

I'm doing my part - using low-wattage bulbs, driving a Prius, combining trips, sharing rides, weatherstripping the doors, keeping the thermostat down, and so on.

So is the City of Bozeman, under their Mayors Climate Protection Agreement, signed in November 2006. In 2007, the City Commission appointed a Climate Protection Task Force to address energy conservation in city operations. They established a baseline inventory of greenhouse gas emissions, and created benchmarks for reducing the city's impact on global warming. In 2008, the city released a Climate Action Plan, calling for a reduction of municipal greenhouse gas emissions to 15% below 2000 levels by 2020.

The State of Montana can refer to many precedents for action taken by other government entities across the U.S. Let's not be the last state to act.

Norman A. Bishop
4898 Itana Circle
Bozeman, MT 59715

Nowakowski, Sonja

From: Rob Dobrowski [robd@wb.midrivers.com]
Sent: Saturday, December 12, 2009 5:00 PM
To: Nowakowski, Sonja
Cc: gary@mtco-ops.com
Subject: Energy efficiency standards for new building construction

Dear Interim Energy Committee Members,
As a consumer-owner of my electric cooperative, I am writing regarding your request for comment on conservation, energy efficiency and energy efficiency standards for new building construction. I am grateful for the Legislature's long history of preserving electric cooperatives' local control on government policies that affect my electric cooperative.

Although conservation and energy efficiency are very important, who pays for it is critical. Mandates that force my co-op to spend money on these programs – beyond its voluntary efforts – could easily raise my electric rates.

In my opinion, a cost-effective action is to address the problem of inadequate and poorly enforced energy efficiency standards for new construction.

Also, please keep in mind two other important considerations. First, not all buildings are heated by electricity, meaning the **electricity provider is not the only energy provider**. Second, the challenge of retrofitting existing homes and businesses that may have never conformed to energy-use construction standards of the day, let alone today's standards, is not one that should be shouldered by utility ratepayers. The question is whether it is an individual or a societal responsibility. If viewed as a societal responsibility, I believe government incentives, not mandates, are the least-regressive, most cost-effective solution.

Thank you for your kind consideration of my comments. I urge you to preserve local control by leaving energy-use actions affecting utilities in the hands of my electric cooperative.

Best Regards,

Rob Dobrowski
1471 Carlyle Road S
Wibaux, MT 59353

Comments on Energy Issues

December 12, 2009

Sonja Nowakowski

P.O. Box 201704

Helena, Mt 59620-1704

Dear Sonja

Thank you for a chance to comment on the State Energy Policies.

I would like to introduce myself. My name is Chuck Erickson. I am a lifelong Missoula resident. I just retired from 38 years in the HVAC field. I specialized in Low Pressure Steam, Building Automation, high efficiency hydronics and air conditioning. I received a letter of recognition from the Plumbers and Pipefitters for teaching Plumbing and HVAC for more than 25 years to the apprentice program.

1. Energy efficiency standard for utilities:
   I believe that Montana's energy companies are doing a good job of helping businesses and residents to conserve energy through their rebate programs and free energy audits. I feel that if and when they do need to build new power plants or replace old ones they need to visit the newer technologies. They always turn to coal or natural gas, limited fuel sources. I think they need to start looking seriously at systems like Plasma Gasification and Geothermal plants. PG systems burn waste cleanly for fuel, garbage, sewage everything except nuclear waste. The byproducts generated can be used for a multitude of uses from building blocks to insulation. Geothermal is virtually untapped in this state. We have some of the best prospects in the Unites States for Geothermal generation. The western side of Montana has all kinds of hot springs that come clear to the surface, we have a huge potential outside of Yellowstone Park. These are sources of energy that are constant unlike wind and sunlight, and we can't deplete them. Would it be a terrible thing if there was a shortage of garbage? The cold day in Hades would come once we used up all the earth's core heat!
   These are clean, steady long term and inexpensive sources of electric energy.
2. Montana Building Codes:
   Montana needs to revisit the building codes and require higher efficiency insulation, windows etc. New installations need to meet high minimum requirements for water and fuel usage.
   I have always campaigned for stronger licensing requirements for installers in the HVAC trade. I feel there needs to be more certification requirements for installers and service technicians. Every year I find boilers with the safety devices bypassed, improperly vented equipment, improper leaking gas lines. Every year improper venting sickens and kills people in Montana. I find high efficiency equipment installed wrong by untrained,

unqualified people that cancel out any efficiency the owner ever hoped to gain. We at one time were going to get the shop dog licensed in Missoula as an HVAC contractor! All it requires is a little background check and a $fee. Harley (the shop Lab) hadn't committed any crimes other than a few soiled rugs in her youth so that wouldn't hold her back and the fee isn't that much! She'd be good to go!

3. Increased state energy efficiency tax credits.
   My experience in the trade has been that we need to increase the tax credits for both commercial and residential energy improvements. I can't count the times I've drawn up and priced out high efficiency systems and replacement systems only to see them passed over for the lesser costly low efficiency systems. I see this even when I have shown the projected lower power bills over the life of the systems. People just can't justify the high initial cost. If we could make it so that the initial cost of a HE system was closer to the cost of a conventional system everyone would want to buy in, they'd be crazy not to. When I retired two months ago I was working on putting together a commercial system in a 7 story office building. The existing system is an old steam boiler with multizone fan coil units on each floor. The 5th floor was a huge server space with 5 big AC units that run 24/7/365 days a year. It has an older inefficient R22 cooling system that dies once or twice a year. I was proposing changing it out to a ultrahigh efficiency hydronic boiler and a high seer chiller and replacing the old multizone units with individual water to air heat pumps on each zone all tied to a common main. This would make it so that the system could recapture waste heat from the upper floors, south exposure windows and one computer room floor and redistribute it to the lower floors and north side zones. We had figured that the computer equipment and lights and bodies in the building would pretty much heat it in the winter on most days. The snag we were running into was finding financing.
   I feel we need to raise the tax credits to reflect a percentage of the cost of a system. The cap needs to go away. The same applies the Federal system. Then the program needs a "Sunset" limit on it. Say 5 years and then reevaluate it.
   I feel the systems should meet a high minimum standard to qualify for tax credits. And it needs to be installed by certified people. This would generate lots of jobs and help the economy in my mind.

Thank you for a chance to express our views; I really appreciate your time and effort on addressing these issues.

Sincerely
Chuck Erickson
10225 Rustic Rd.
Missoula, Montana 59802

Nowakowski, Sonja

From: Guy Bateman [gdbateman@yahoo.com]
Sent: Sunday, December 13, 2009 6:36 AM
To: Nowakowski, Sonja
Subject: State Energy Policy

Energy efficiency should be the cornerstone of Montana's energy policy. We should adopt the following:

1. Energy efficiency standard for utilities,
2. Energy efficient building codes, and
3. Increased state energy efficiency tax credits.

Thanks for considering my views.

Guy Dean Bateman, Ph.D.

P.O. Box 144

Pablo, MT 59855

Nowakowski, Sonja

From: sherman [sherman@montanasky.net]
Sent: Sunday, December 13, 2009 1:44 PM
To: Nowakowski, Sonja
Subject: Energy Efficiency

Dear Energy and Telecommunications Interim Committee,

Energy Efficiency must be the cornerstone of any decisions, or changes made to state laws. I have read recently in Newsweek Magazine where states such as Oregon and Texas have plans for large increases in wind farms which will reduce energy cost of mining coal as well as streamling there production of energy. Montana should consider the same goals.

Montana is sitting on a goldmine fuel source that has gone largely untapped - energy efficiency. Energy-efficient technologies exist today that could save the state between 25 and 30 percent on energy spending through 2030 and reduce the need for expensive new power plants.

Montana's power companies play an important role in bringing these energy-saving solutions to their customers, and in the process, create good local jobs to get the work done. Simple upfront investments in the efficiency of new and existing homes, offices, schools and other buildings saves property owners money on energy bills, puts people to work and improves the comfort, health and productivity of those living, learning and working inside.

Thank you

Roger Sherman
6203-H Monterra Ave
Whitefish 59937

Nowakowski, Sonja

From: Marlene Waterland [mwaterland@seecoop.com]
Sent: Monday, December 14, 2009 9:05 AM
To: Nowakowski, Sonja
Subject: New building construction energy standards

Dear Interim Energy Committee Members,

I am a consumer-owner of my electric cooperative, I am writing regarding your request for comment on conservation, energy efficiency and evergy efficiency standards for new building construction. Although conservation and evergy efficiency are very important, who pays for it is critical. Mandates that force my co-op to spend money on these programs--beyond its voluntary efforts--are going to add dollars to my electric bill. The idea that electricity will only be available to the rich is no longer just a joke. Every piece of regulation and legislation costs me more money. Please do not allow proposed legislation that would mandate energy conservation and evergy efficiency measures.

Thank you for reading my comments. Please preserve local control by leaving energy-use actions affecting utilities in the hands of my electric cooperative.

Marlene Waterland
Ekalaka, Montana

Nowakowski, Sonja

From: Patsy Reimche [patsy@ethanolmt.org]

Sent: Monday, December 14, 2009 11:16 AM

To: Nowakowski, Sonja

Subject: Legislation

Dear Interim Energy Committee Members

As a consumer-owner of my electric cooperative, I am writing regarding your request for moment on conservation, energy efficiency and energy efficiency standards for new building construction. I am grateful for the Legislature's long history of preserving electric cooperatives' local control on government policies tha affect me electric cooperative.

Although conservation and energy efficiency are very important, who pays for it is critical. Mandates that force my co-op to spend money on these programs- beyond its voluntary efforts- could easily raise my electric rates.

Please keep in mind two important considerations. First, not all buildings are heated by electricity, meaning the electricity provider is not the only energy provider. Second, the challenge of retrofitting existing homes and businesses that may have never conformed to energy-use construction standards of the day, let alone today's standards, is not one that should be shouldered by utility ratepayers. The question is whether it is an individual or a societal responsibility. I believe government incentives, not mandates, are the least-regressive, most cost-effective solution.

Thank you for your kind consideration of my comments. I urge you to preserve local control by leaving energy-use actions affecting utilities in the hands of the local cooperatives.

Sincerely,

Patsy Reimche
Nashua, Montana

Nowakowski, Sonja

From: Dick Forehand [basecampimages@earthlink.net]
Sent: Monday, December 14, 2009 11:59 AM
To: Nowakowski, Sonja
Subject: Energy Efficiency

Please note that Montana is sitting on a gold-mine fuel source that has gone largely untapped – energy efficiency.

-- Energy-efficient technologies exist today that could save the state between 25 and 30 percent on energy spending through 2030;

-- Energy efficiency reduces the need for expensive, new power plants;

--Energy efficiency should be the cornerstone of Montana's energy policy;

--Energy efficiency creates good local jobs;

--Simple upfront investments in the efficiency of new and existing homes, offices, schools and other buildings saves property owners money on energy bills;

--Energy efficiency in schools and government buildings saves taxpayers money;

--Energy efficiency improves the comfort, health and productivity of those living, learning, and working inside.

Sincerely,

Dick Forehand

Box 1632

Red Lodge, MT 59068

Nowakowski, Sonja

From: Craig Eaton [ceaton@interbel.net]
Sent: Monday, December 14, 2009 10:56 PM
To: Nowakowski, Sonja
Cc: gary@mtco-ops.com
Subject: Comments on conservation, energy efficiency and energy efficiency standards for new building construction

December 14, 2009

Dear Interim Energy Committee Members,

I am a consumer and a co-owner of my electric Cooperative and I feel inclined to submit comments regarding your request for public input on conservation, energy efficiency and energy efficiency standards for new building construction.

I realize that conservation and energy efficiency are very important. Many of our States Cooperatives have already implemented programs that work to conserve energy and make their customers aware of the benefits of such programs. State imposed mandates that force my Co-op to spend money on these programs – beyond its voluntary efforts – could easily raise my electric rates and add to the ever mounding debt load I am already struggling to meet.

This committee should consider recommending government incentives, not top down mandates. They are the least-regressive, most cost-effective solution.

Other actions to consider is addressing the problems of inadequate and poorly enforced energy efficiency standards for new construction and the large challenge of retrofitting existing homes and businesses that may have never conformed to energy-use construction standards of the day, let alone today's standards. These costs should not be shouldered by Cooperative ratepayers. Also keep in mind that not all buildings are heated by electricity and that there are other energy suppliers here in the State that need to be a part of the planning and conservation efforts.

I am grateful for the Legislature's long history of preserving electric cooperatives' local control on government policies that affect my electric cooperative. I urge you to preserve local control by leaving energy-use actions affecting utilities in the hands of my electric cooperative.

Sincerely,

Craig Eaton

PO Box 564

Eureka, MT 59917

Nowakowski, Sonja

From: Melanie Roe [mroe@mtintouch.net]

Sent: Tuesday, December 15, 2009 2:20 PM

To: Nowakowski, Sonja

Cc: 'gary Wiens'

Subject: Public comments on conservation, energy efficiency and standards for new building construction

Dear Interim Energy Committee Members,

As a member of Park Electric Cooperative in south central Montana, I am writing regarding your request for comments on conservation, energy efficiency and energy efficiency standards for new building construction. I appreciate that the Legislature has a long history of preserving electric cooperatives' local control on government policies affecting our local co-ops and their member/owners.

While conservation and energy efficiency are extremely important, even more so is who and how it will be paid for, especially during these difficult economic times. Mandates that force my co-op to spend money on these programs – beyond voluntary efforts could easily raise my electric rates. In my opinion, a cost effective action would be to address the problem of inadequate and poorly enforced energy efficiency standards for new construction.

Also, please keep in mind that not all buildings are heated by electricity, meaning the electricity provider is not the only energy provider. Furthermore the challenge of retrofitting existing homes and businesses that have never met energy standards, let alone today's newer and more restrictive standards, is not one that should be shouldered by electricity rate payers. The question is whether it is an individual or a societal responsibility. If viewed as a societal responsibility, I believe government incentives, not mandates, are the least-regressive, most cost-effective solutions.

Thank-you for considering my comments. I urge you to preserve local control by leaving energy-use actions affecting utilities in the hands of my electric cooperative!

Sincerely,

Melanie Roe
PO Box 1019
819 Boulder Rd
Big Timber, MT
59011

Nowakowski, Sonja

From: Linda Meine [linda@vec.coop]
Sent: Tuesday, December 15, 2009 2:48 PM
To: Nowakowski, Sonja
Cc: gary@mtco-ops.com
Subject: Public Comments to Interim Energy Committee

Dear Interim Energy Committee Members,

As a consumer-owner of my electric cooperative, I am writing regarding your request for comment on conservation, energy efficiency and energy efficiency standards for new building construction. I am grateful for the Legislature's long history of preserving electric cooperatives' local control on government policies that affect my electric cooperative.

Although conservation and energy efficiency are very important, who pays for it is critical. Mandates that force my co-op to spend money on these programs – beyond its voluntary efforts – could easily raise my electric rates. Economic conditions alone should prohibit any legislation that would add more financial burden to me and other Montanans.

In my opinion, a cost-effective action is to address the problem of inadequate and poorly enforced energy efficiency standards for new construction. These standards are already in place. We do not need more mandates.

Also, please keep in mind two other important considerations. First, not all buildings are heated by electricity, meaning the electricity provider is not the only energy provider. Second, the challenge of retrofitting existing homes and businesses that may have never conformed to energy-use construction standards of the day, let alone today's standards, is not one that should be shouldered by utility ratepayers. The question is whether it is an individual or a societal responsibility. If viewed as a societal responsibility, I believe government incentives, not mandates, are the least-regressive, most cost-effective solution.

Thank you for your kind consideration of my comments. I urge you to preserve local control by leaving energy-use actions affecting utilities in the hands of my electric cooperative.

Cordially,

Linda Meine
Dillon, Montana

Nowakowski, Sonja

From: Thad Adkins [thad_adkins@hotmail.com]
Sent: Tuesday, December 15, 2009 5:52 PM
To: Nowakowski, Sonja
Subject: Energy Policy
Attachments: AWR Final Version.doc

Hello,

I've attached a policy paper I wrote this spring which outlines the direction in which I hope Montana energy policy will progress. Pages 12-15 are especially relevant. Please let me know if you have any comments or questions.

Sincerely,

Thad Adkins
1039 N. Warren St.
Helena, MT 59601
Cell: 423-987-6691
thad_adkins@hotmail.com

Greenhouse Gas Emissions at the State Level: Montana's Emissions and Control Strategies.

Thaddeus Thomas Adkins

April 20, 2009

In Fulfillment of the Vermont Law School Advanced Writing Requirement, and in conjunction with Climate Change and the Law, a spring of 2009 course taught by Professor Patrick Parenteau, who contributed valuable guidance and feedback for this paper.

Contents

I. Introduction

The scientific community and media have paid a great deal of attention to the rapid loss of the glaciers of the no-longer-so-aptly named Glacier National Park in the State of Montana.[1] Their loss is emblematic of the immediacy of the impact of climate change, especially in the intermountain region. Montana's forests are similarly dying at an increased rate, as previously cold-limited pine bark beetles and blister rust overwinter more readily.[2] The Intergovernmental Panel on Climate Change (IPCC) predicts with a high degree of confidence that semi-arid and arid regions in the western USA will particularly suffer the effects of climate change, including a decrease in the availability of water resources.[3] Climate projections for Montana indicate earlier spring melts, a greater percentage of precipitation falling as rain, more frequent and severe wildfires, and the potential loss of 5 to 30 percent of trout habitat in the western part of the state.[4] It is clear that current changes represent the leading edge of new regional climate norms.

Climate change is a truly global problem, however, so does it make sense for a state responsible for a relatively tiny fraction of global green house gas (GHG) levels, approximately 0.6% of the US total,[5] to take significant action when that state benefits economically from enormous reserves of coal and natural gas? The rational, science-based answer to that question is that precisely because of its enormous fossil fuel reserves, Montana has a disproportionately high impact on climate change per unit of energy use. Abandoning fossil fuel combustion and moving instead toward an energy policy based on the state's overwhelmingly abundant clean renewable energy sources and conservative energy use would set a tremendous precedent for the global economy and help avoid globally significant GHG emissions.

Montana has made some progress toward curbing carbon emissions. Governor Brian Schweitzer committed the state to the Western Climate Initiative (WCI), a state cap and trade system similar to the northeast's Regional Greenhouse Gas Initiative program. The first phase of the WCI is scheduled to launch on January 1, 2012.[6] Governor Schweitzer also committed Montana to the 25 x '25 initiative, which not surprisingly aims for 25 percent renewable energy by 2025,[7] and a similar 20 X '10 initiative, mandating state agencies to reduce energy consumption by 20% by the year 2010.

At the same time, however, the Governor promoted proposals for a new coalmine near Roundup and a coal-to-liquid plant on the Crow reservation. He boasted on the 2008 campaign trail that coal production rose seven percent during his first term in office.[8] The Governor and the state legislature have adopted a Total Energy Development (TED) strategy, which calls for the simultaneous development of all state energy resources.[9] The Governor has since qualified his support to include only coal

projects with carbon sequestration, but it appears that projects will be allowed to proceed without demonstration of that technology's effectiveness or safety.

This paper attempts to aggregate and summarize the large amount of information recently promulgated by state and private sources regarding energy use and climate change in the state of Montana. It will examine some of the current, historical, and projected energy use trends in Montana and the generation base for that power, and then analyze the Governor's Climate Change Advisory Committee final report, the *Montana Climate Change Action Plan*. Finally, it will examine a number of alternative proposals with the potential to reduce the state's contribution to climate change.

II. Montana's Greenhouse Gas Emission Profile

Formulation of effective regulations or other controls for GHG emissions cannot begin without accurate and complete data reporting. In September of 2007, the Montana Department of Environmental Quality (DEQ) released the *Montana Greenhouse Gas Inventory and Reference Case Projections 1990-2020* (*GHG Inventory*), a report prepared by the Center for Climate Strategies to gather and assess state GHG emissions data.[10] The report significantly advanced the availability of emissions data in advance of mandatory reporting required to start in 2011 under the Western Climate Initiative, covering year 2010 emissions.[11]

The *GHG Inventory* estimates each Montanan's per capita share of emissions at a staggering 40 metric tons (Mt) Carbon Dioxide equivalent (CO_2e) annually.[12] That number *under*estimates the real world total because its calculation excludes the 9.4 million metric tons (MMt) of CO_2e emitted to generate exported electricity.[13] By

comparison, the EPA estimates that the average US citizen emits a per capita average of 25 MtCO2e, which itself is the highest national average on the planet.[14]

Montana's GHG aggregate emissions continue to increase, and are expected to climb 30% above 1990 levels by 2020, reaching 42 Million Metric tons Carbon Dioxide equivalent (MMtCO2e) under the business as usual (BAS) scenario. Although the report did not prepare or analyze a low carbon scenario, it did prepare a high fossil fuel production case, for which it estimated a gross emissions rate of 52 MMtCO2e in 2020.[15]

Montana's GHG emissions breakdown varies somewhat from the national picture, reflecting the state's higher incidence of agricultural activity and fossil fuel extraction.[16] Agriculture emitted 9.5 MMtCO2e in 2000, or 26 percent of total gross emissions, while fossil fuel extraction accounted for an additional 11 percent. The national total gross agricultural emissions for the same time were seven percent, with fossil fuel extraction accounting for an additional three percent. Electricity (26%), transportation (20%), and agriculture (26%) were the primary sources of gross GHG emissions in Montana in 2000.

In 2005 the electric sector emitted 10 MMtCO2e (plus 9.4 MMtCO2e from electricity export), the Residential / Commercial / non-fossil fuel Industry (RCI) sector emitted 4.8 MMtCO2e, the transportation sector emitted 8 MMtCO2e, the fossil fuels industry emitted 5 MMtCO2e, the industrial processes sector, including cement, aluminum, and electric related sulfur hexafluoride, emitted 0.9 MMtCO2e, waste management emitted 0.3 MMtCO2e, and agriculture emitted 7.9 MMtCO2e.[17]

The *GHG Inventory* heavily discounts annual gross emissions by subtracting 23.1 MMtCO2e for forestry and land use sequestration offsets, and another 2.3 MMtCO2e for the agricultural soils sink. Heavily discounting emitted carbon through wildly optimistic

estimates of the state's natural carbon sequestration capacity offsets[18] greatly reduces the utility of the *GHG Inventory* and threatens to water down potential carbon caps. Indeed, the *GHG Inventory* itself notes the potential for unreliability.[19]

Appendix H of the *GHG Inventory* addresses the US Forest Service's forest carbon dioxide flux methodology from its Forest Inventory Analysis, from which the 23.1 MMtCO2e estimate was drawn. It notes that half a million forested acres used in the calculations have been downgraded because of a change in the definition of forested area from a minimum of five percent forest crown cover to the current level at ten percent.[20] Appendix H further notes that a variety of fire related emissions were not included, and that forest carbon addition calculations did not account for growth climax.

It is unclear from the data how the calculations estimated forest carbon atmospheric returns through decomposition, fire, or harvest. It also did not appear from the information available that Forest Service calculations accounted for climate related factors including reduced precipitation, increased mortality from insects and disease, increased fire incidence, and increased intensity of fires that by their own account lead to the release of carbon sequestered in the forest duff.[21] Given the magnitude of the uncertainties surrounding forest carbon sequestration and the longevity of atmospheric carbon, operation of the precautionary principle would seem to discourage the use of offsets to lower CO2e reduction targets for fossil fuels. Forest growth should instead operate as a tool for mitigation of the existing elevated atmospheric GHG levels.

As noted above, the *GHG Inventory* tellingly did not assemble a low fossil fuel production scenario, but did include a high fossil fuel scenario and BAU projections. In the high fossil fuel scenario, the report assumes the construction of an additional 2,500

MW of interstate transmission beyond the projected 500 MW of the BAU scenario. It further assumes that two-thirds of generation will be fluidized bed coal, with the balance coming from wind. The high fossil fuel scenario also accounts for the construction of two coal-to-liquid facilities with a concomitant increase in coalmining production, as well as a significant increase in coalbed methane production, the expansion of existing refining capacity, and a new refinery to handle Alberta oil sand crude.[22]

The *GHG Inventory* projects electric sector emissions of 34.2 MMtCO2e for 2020 under the high fossil fuel scenario, up from 19.3 MMtCO2e in 2005 and 15.8 MMtCO2e in 1990. By contrast, electric sector emissions under the BAU reference scenario would rise to 23.8 MMtCO2e in 2020. The report does not attempt to analyze how the cap and trade program of the Western Climate Initiative or an as-yet-undetermined federal cap and trade scheme will affect these projections, although Montana had not yet officially join the WCI until after the *GHG Inventory* appeared.

Although the *GHG Inventory* advanced the information available to diagnose Montana's biggest emission sources and to begin developing carbon mitigation strategies, it distorted the overall picture by heavy discounting with uncertain offsets, and critically failed to promulgate a low carbon production scenario.

III. Montana's Troublesome Reliance on Fossil Fuels

Absent a carbon pricing mechanism like the WCI cap-and-trade program, Montana certainly possesses the capacity to meet or exceed the highest emissions projections, although the current economic downturn makes it temporarily unlikely. An industry fact sheet estimates Montana's coal reserve at 119.1 billion tons, the largest in any state, but does not indicate what percentage is economically recoverable. Montana

produced 43.4 million tons of coal in 2007, ranking it fifth in the nation behind Wyoming, West Virginia, Kentucky, and Pennsylvania.[23] Add to that 151 billion cubic feet of proven, nonproducing reserves of natural gas, 90 million barrels of nonproducing reserve crude oil in 2007, and higher numbers of producing reserves.[24]

Yet hydropower produced the majority of Montana's electric power until 1986, when additional coal generation went online. From 1999 to 2002, 63 percent of generation was coal-based, 35 percent hydro, and the remainder came from natural gas and micro-wind installations.[25] Montana generators produced an average of 3,000 MW annually during that same period, with 5,100 MW of total capacity. Approximately 1,600 MW were consumed instate or lost in transmission, with the balance sold to the export market. The Judith Gap wind farm went online in 2005, and alone pushed Montana's wind generation to between 2.5 and 3.0 percent.[26]

There are currently a number of proposals for additional generation, both wind and coal-based, designed to feed the export market. The Crow Indian Reservation and Australian-American Energy Co. recently announced that their plans to build a $7 billion coal-to-liquid plant would proceed despite the economic downturn.[27] The plans call for 95 percent capture of plant emissions through as-yet-unproven carbon sequestration, while state lawmakers continue to wrangle over whether split estate surface owners would retain ownership of subsurface pore space.

The state, backed by industry lobbyists, maintains that it retains ownership of pore space, while private landowner groups make the opposite argument.[28] Given the traditional legal bias favoring subsurface split estate owners, and the potentially stymieing ramifications for carbon sequestration and storage if surface landowners were

extended ownership, it seems unlikely that state legislators will extend surface landowner control to pore space. One recent bill that attracted a great deal of attention, SB498, would have defined carbon dioxide as nontoxic and transferred ownership and liability of underground deposits of the gas from industry to the state after only 20 years.[29] It was defeated in committee, with Montana Democrats insisting on industry ownership for at least 75 years in order to determine the long-term safety of such projects.

Despite state level squabbling the Bureau of Indian Affairs, acting in accordance with the Indian Minerals Development Act, approved the contract in March of 2009.[30] Although Governor Schweitzer assured state cooperation, the plan could become ensnarled in new regulations proposed by the EPA. In response to the recent Supreme Court decision in *Massachusetts v. EPA*, EPA proposed to find that greenhouse gases in the atmosphere threaten the public health and welfare of current and future generations pursuant to § 202(a) of the Clean Air Act (CAA).[31] Though § 202 only deals with mobile sources, the endangerment finding will presumably lead to primary and secondary ambient air quality standards for the six recognized categories of greenhouse gases under § 109 of the CAA, which would in turn trigger stricter state air quality and new source performance standards under § 110 and §111 respectively, of the CAA.[32]

The EPA similarly issued a proposed rule pursuant to the Safe Drinking Water Act for underground injection of carbon dioxide for the purpose of geologic sequestration. It proposes a new class of well in addition to minimum technical criteria for geologic site characterization, fluid movement, area of review and corrective action, well construction, operation, mechanical integrity testing, monitoring, well plugging, post-injection site care, and site closure for the purposes of protecting underground

sources of drinking water.[33] The proposed Many Stars plant will contend with a host of new rules and regulations, greatly increasing application costs and delays.

IV. A Plan for Action: The Climate Change Advisory Committee's Final Report

Governor Schweitzer directed the Montana DEQ to form a Climate Change Advisory Committee (CCAC) in 2005, and that Committee issued its final report, the *Montana Climate Change Action Plan* (*CCAC Report*), in November of 2007. It utilized much of the information from the *GHG Inventory* to analyze the GHG emissions from Montana's economy broken down into four different sectors: Energy Supply (ES), Residential, Commercial, Institutional, and Industrial (RCII), Transportation and Land Use (TLU), and Agricultural, Forestry, and Waste Management (AFW).

The *CCAC Report* evaluated a number of strategies for reducing GHG emissions from the various components of each sector, and issued 54 policy recommendations to do so.[34] It greatly advanced Montana's ability to mitigate its contributions to climate change, and will aid in meeting carbon reductions targets for either the WCI or national or international standards, in the event of their adoption. Like the *GHG Inventory*, however, the *CCAC Report* also contained a number of misplaced assumptions that weakened its overall effectiveness.

The *CCAC Report* set a modest goal, aiming for the attainment of 1990-level consumption-based emissions by the year 2020. Noting that consumption-based measures did not include export electric emissions within their ambit, the *CCAC Report* prepared both a consumption-based and production-based proposal for its ES sector analysis, leaving policymakers to decide on a standard. Without suitable assurances that

importing states will accurately account for the GHG emissions from Montana coal-generated power, the production-based approach should be applied to the ES sector.

The *CCAC Report* also ignored gross GHG emissions, adhering instead to a net GHG emissions calculation that incorporated the overly high and potentially misleading carbon sink offsets. As noted above, this approach removes forest-and-wetland-based sequestration as a tool for reducing the currently elevated levels of atmospheric GHG, and precludes adequate cuts in existing and future sources of GHG emissions.

The recommendations of the *CCAC Report*, if adopted in total, would lead to reductions of 29.0% (18.4 MMtCO2e) for the RCII sector, 34.5% (21.9 MMtCO2e) for the ES sector, 9.6% (6.1 MMtCO2e) for the TLU sector, and 26.9% (17.1 MMtCO2e) for the AFW sector. The *CCAC Report* estimated implementation costs of -$93 for the TLU sector, -$17 for the RCII sector, $17 for the ES sector, and $26 for the AFW sector, based on the overall cost-per-ton of reduced emissions. Implementation for the TLU and RCII sectors would therefore yield a net economic benefit, while AFW sector implementation would require the greatest cost inputs per ton of reduced GHG emissions.

The greater implementation cost for the AFW sector appears to stem solely from recommendation AFW-9, *Improved Management and Restoration of Existing Stands*, which is estimated to cost $119 per avoided ton of GHG while reducing 1.3 MMtCO2e between 2007 and 2020. Similarly, TLU-7, *Heavy-Duty Vehicle Emissions Standards and Retrofit Incentives*, costs $79 per avoided ton of GHG and buys a mere 0.16 MMtCO2e emissions reduction between 2007 and 2020.

Despite its shortcomings, however, the *CCAC Report* presented a number of policy options to dramatically reduce the amount of Montana's GHG emissions. Some of

those proposals are discussed in the following section. The Montana legislature and state regulatory agencies should promptly adopt and implement the proposals outlined in the *CCAC Report*, but should use it as the floor for further GHG emission cuts and other standards rather than the ceiling.

V. Choosing An Alternative Path to Energy Production

Despite making real progress toward formulating an action plan for mitigating Montana's contributions to climate change, there are troubling signs that the state remains committed to the default path of escalating emissions from a perpetual increase in fossil fuel use. While the governor has publicly committed to carbon mitigation, most notably by signing on to the Western Climate Initiative, both the *GHG Inventory* and the *CCAC Report* focus solely on BAU and high fossil fuel scenarios, indicating the state's commitment to increased coal-fired electricity production for export.

In most cases, both reports discounted emissions from exported electricity. While emissions should not be double counted within systems established to mitigate climate change, it is critical that they are fully counted somewhere. Allowing production states to discount exported emissions may fail to stimulate the development of internal disincentives for additional or expanded coal-fired electricity generation, and encourages inefficiencies stemming from line loss and increased transmission siting.

This section explores and expands on the reduction scenarios put forward by the CCAC, and incorporates a number of recommendations from *Repowering Montana, A Blueprint for Home Grown Energy Self-Reliance* (*AERO Blueprint*), issued by the Alternative Energy Resources Organization (AERO).

A. Efficiency and Conservation

Any good faith effort to control GHG emissions must place enormous emphasis on efficiency improvements and energy conservation. Avoided energy use translates into avoided carbon, which in turn can yield cost benefits for the consumer, mitigating the impacts of predicted increases in energy costs and their attendant political liabilities. The *CCAC Report* notes that benefits of efficiency "include, but are by no means limited to, reduction in spending on energy by homeowners and businesses, contributions to local economic development, reduced local and regional air pollution and related human health impacts, improvements in business efficiency and productivity, electricity system generation, transmission and distribution benefits, reduction in water use and in related water supply impacts, and improvements in comfort, convenience and indoor air quality as a result of building improvement measures."[35]

Yet Montana does not currently have a unified, effective energy efficiency program. Instead, it mandates limited utility-based programs and offers modest state income tax incentives, especially for Northwest Energy Star-certified homes.[36] NorthWestern Energy, the state's largest electricity supplier, offers onsite or mail-in energy audits and online energy saving tips and information. In conjunction with the Montana Department of Public Health, NorthWestern Energy also partially sponsors free weatherization to qualifying low-income residents.[37] Unfortunately, most Montanans are not aware of the offerings that are available.[38]

Montana should create an energy-efficiency utility similar to the State of Vermont's groundbreaking Efficiency Vermont, an independent non-profit organization legislatively enacted to provide technical assistance and financial incentives to households and businesses to help them reduce energy costs with energy-efficient

equipment and lighting and with energy-efficient approaches to construction and renovation.[39] Efficiency Vermont is funded by assessing an energy efficiency charge to all utility customers. It works with industry to select and subsidize energy efficient equipment and make facility improvements. It also subsidizes residential energy devices, which most notably includes compact fluorescent light bulbs that sell for about a dollar each at participating hardware stores and other retail outlets, with no rebate required.

As an electricity exporter Montana does not share the same economic characteristics with Vermont, so reducing peak load may not forestall the creation of additional base load production absent a considerable shift in the price of carbon. Considering the impact on climate change, however, reducing instate consumption would achieve comparatively greater greenhouse gas reduction because of Montana's high reliance on coal-based power generation. Montana's historically low electricity prices also encouraged inefficiencies across the board, from industrial equipment to residential construction and appliances.[40] An energy-efficiency utility would therefore have abundant opportunities to make improvements.

Montana made important strides toward improving building energy efficiency by adopting a slightly amended version of the International Energy Conservation Code (IECC) into the statewide building code, heightening energy efficiency standards for new homes.[41] The Montana DEQ recommends that the state adopt the 2009 version of the IECC.[42] Given the potential energy savings from enhanced standards due to building longevity, however, the state should adopt the recommendation of the *CCAC Final Report,* which calls for a 15 percent improvement on the existing code by 2010, and a 30

percent improved standard by 2020.[43] The state should continue providing tax incentives to homeowners who go beyond code efficiency requirements.

The *CCAC Final Report* recommends adopting state-level appliance efficiency standards and advocating for enhancement of current federal standards.[44] Because Montana represents a minor fraction of the market for appliances and equipment, the report's conclusion makes sense. Enhancing federal or state coalition standards rather than a go-it-alone strategy will most effectively drive efficiency enhancement, as manufacturers are not likely to develop products specifically for such a small market. Montana should work with state coalitions to create appliance and equipment efficiency standards that exceed federal base levels, driving innovation and advanced efficiency.

It appears that the state will apply a portion of its $870 million stimulus package funding to energy efficiency. Governor Schweitzer's administration proposed spending up to $27 million to weatherize qualifying low income residential homes, and at least $37 million to retrofit and improve the energy efficiency of government buildings, including state college campuses.[45] A final spending package has not been approved by the state legislature, however, and it does not seem likely that it will include significant funding for other GHG mitigation measures.

Transportation accounted for 20 percent of the state's total GHG emissions in 2000.[46] Any state efficiency and conservation program clearly must address this growing sector of emissions. The Montana Transportation and Land Use Technical Working Group issued a recommendation for the adoption of the California clean car GHG emission standards for light duty vehicles, as well as a fuel-efficient replacement tires program, heavy-duty vehicle emissions standards and idle reduction, tax incentives, and

other transportation efficiency and conservation measures.[47] The California Pavley standards now appear to be on track for EPA approval, and have been adopted by more than a dozen states. Montana is currently listed by the PEW Center on Global Climate Change as "poised to adopt CA standards."[48]

Despite the TLU committee's recommendation and favorable testimony by the Governor's office[49], the Montana Senate recently failed to clear enacting legislation out of the Natural Resources Committee.[50] Adoption of the California standards or their equivalent, along with improved public transportation infrastructure and land use planning, are essential to reducing emissions from a sector that continues to increase at a rate of about two percent annually.

California has dealt with the increase in vehicle miles traveled (VMT), the unintended consequence of mandatory increases in vehicle fuel efficiency, by creating incentives for land use and transportation planning. That policy has been criticized, however, for its lack of mandatory provisions or new funding mechanisms.[51] Montana should carefully examine the California measures to determine their applicability to its own land use regime. Mandating vehicle efficiency without some additional mechanism for the reduction of VMT will fail to achieve a net reduction in GHG emissions.

The *AERO Blueprint* lists nine measures that could reduce the amount of gasoline and diesel use in Montana. The proposals include gradually phasing in a state gas tax to fund alternative transportation options, replacing or retrofitting state government vehicles to achieve the highest possible fleet efficiency, imposing registration fees that penalize inefficient vehicles and reward efficient ones, improving land use planning, imposing speed limit reductions, and increasing driver education.[52] Such measure would

encourage efficiency and conservation and provide funding mechanisms for alternative transportation options.

Although the economies of scale necessary for public transportation are harder to achieve in a rural state like Montana, there are some advantages apart from the conservation of GHG emissions. Stigmas associated with public transportation are not as pronounced, nor are fears of safety and crime, and on-time performance can be easier to achieve.[53] On the other hand, because the region is historically underserved by mass transit, most state residents own a personal automobile and are habituated to driving. Efforts to introduce or enhance public transportation must therefore include concerted advertising and educational efforts.

The city of Bozeman recently introduced a Streamline bus program that has expanded to include routes to surrounding towns, with citizen petitions for even more.[54] There have also been proposals for better Amtrak service, which presently offers only the Empire Builder route across the sparsely populated "Hi-line" of northern Montana, connecting Seattle to Chicago and beyond.[55] A southern route would link all the state's major population centers, which have not had an alternative to automobile or air travel since the Amtrak's North Coast Hiawatha Route was abandoned in 1979.[56]

Ticket prices should be set to make rail cost competitive with driving to encourage higher utilization, thereby increasing political support and maximizing the conservation of GHG emissions while also creating job-intensive public infrastructure projects. Installation of high efficiency electrified rail tracks, although initially expensive, could even draw power from Montana's abundant wind and solar resources.

Although public transportation costs are more difficult to offset with passenger ticket sales in rural, geographically expansive areas like Montana, public subsidization yields many ancillary benefits such as providing access to healthcare and community services, and linking businesses to a widely dispersed job force.[57] Where capital-intensive projects fail to make economic sense, low cost public car share and carpooling programs, telecommunications, and virtual commuting options could fill the gap.

Efficiency and Conservation are often the least cost option for power generation, with a host of benefits beyond carbon mitigation, including water and fuel savings, job creation, risk reduction, and energy security.[58] While efficiency is often touted as the only viable solution because it avoids consumer sacrifice, if we are to seriously tackle climate change we must pull conservation out of the 1970's dustbin of good ideas and rehabilitate its image. Simple lifestyle choices can greatly reduce energy consumption without unduly affecting quality of life, and may instead have the reverse effect. Obesity, heart disease, mercury poisoning, respiratory ailments, and overall stress should realistically weigh against the number of electric toothbrush models available to the average consumer when setting a metric for quality of life.

B. The Intermittency Problem

One significant barrier to wholesale development of green renewable energy sources is their inherent intermittency, which limits the ability to provide reliable base load power. Since power providers cannot control the variability of the wind or sun and must continuously meet the power demands of the grid or face blackouts or brownouts, intermittent power sources must be "firmed up," or backed by immediately dispatchable energy sources like gas or hydropower.[59] Fortunately, there are a number of solutions

that could increase both the immediate market penetration and long-term replacement of fossil fuel based generation with green renewables.

Montana is particularly well situated to deal with intermittency because it relies on hydropower for about 35 percent of its overall generation.[60] The *AERO Blueprint* makes a convincing case for public acquisition of the state's existing hydropower dams in order to firm up wind and other interruptible sources of power, enabling them to replace a greater percentage of base load generation. It proposed that the state either buy the facilities or regulate them so that they operate in tandem with renewable sources of energy.[61] Operated efficiently, it would give system operators time to call up backup generation when wind or solar fails to perform as expected. This would significantly reduce the amount of spinning reserves necessary to provide a satisfactory margin of reserve power, greatly reducing GHG emissions.

Although dam operators must balance a number of competing environmental and water user interests and are particularly vulnerable to impacts from drought, they are a critical component to incorporating interruptible power sources into the grid. Sensible management policies should balance environmental impacts and water user demands while facilitating the rapid and reliable incorporation of green renewable into Montana's power mix.

Selection of a diverse mixture of distributed green renewables is another strategy to increase the market penetration of interruptible power sources. Rather than developing a small number of large centralized plants, a diverse mix of distributed wind, solar, micro-hydro, geothermal, biomass, and biogas plants would reduce the impact of an outage at any one generator and greatly increase overall grid reliability and efficiency.[62]

A diverse mix of scattered generators would improve efficiency through reductions in line loss and increase system resiliency by minimizing the impact of local outages.[63] The *CCAC Final Report* recommended increasing incentives for installation and development of combined heat and power and distributed generation systems, funded in part by improving or expanding the state's Alternative Energy Revolving Loan Program.[64]

Deployment of smart grid technology is critical for the development of distributed green renewable power in order to overcome power quality, dispatch, safety, reliability, metering, local distribution system operation, and control issues.[65] While Montana law currently requires utilities to allow generators of less than 50 KW to connect to the grid and net meter,[66] it requires customer-generators to pay for all equipment necessary for safety, power quality, and interconnection requirements,[67] greatly increasing the capital requirements for residential and commercial installations. The state should encourage the further refinement of existing applicable standards, and ideally offer separate cost subsidization or tax relief to cover the costs of equipment necessary for compliance.

The *CCAC Final Report* calls for the installation of 45,000 residential smart meters and recommends real time pricing. Real time pricing would provide consumers with a price signal to actively encourage efficiency and reduce peak loads.[68] Such a program could revolutionize demand-side management, allowing manufacturers and even consumer appliances to cycle with power availability. Large industrial energy users could time the use of their most energy-intensive equipment and processes to coincide with high wind or solar availability. Power availability would therefore drive energy consumption, rather than the current opposite generation approach.

Energy storage remains an untapped area of potential, although each energy state conversion decreases overall system efficiency. Chemical battery storage using simple lead acid systems is currently used for many small residential grid-tied systems to enhance overall reliability.[69] Battery technology continues to improve, and researchers are even pursuing a battery developed from a modified bacteriophage virus.[70] Pumped-storage hydro facilities similar to the 1,600 MW Raccoon Mountain TVA site outside of Chattanooga, Tennessee, could similarly utilize surplus renewable power during periods of high production, pumping water up to reservoirs that operate like normal hydropower generators upon demand.[71] Pumped storage significantly does not pose the same environmental threats as conventional hydropower because they do not block stream channels and can utilize high water flows.

Ultimately, fuel cells may develop to the point that hydrogen electrolyzed from surplus wind or solar would power the grid during periods of low solar and wind input. Deployment of that technology, however, will not be viable soon enough to affect energy development in the near term. A more likely project could involve compressed air energy storage from wind turbines, although such projects are highly site specific and require the addition of natural gas or methane during expansion.[72]

Development of geothermal, biomass, and instream micro-hydro generation could provide further base load, and combined with major efficiency gains and demand side management, could further reduce the intermittency problem, creating a stable, job intensive energy mix yielding very low GHG emissions. It was also have the ancillary benefit of reducing the substantial mining-related emissions from fossil fuel extraction.[73]

C. Wind

No other sector of renewable energy generation holds the vast untapped potential or the technological maturity within the state of Montana as wind. The state ranks fifth in the nation for potential wind energy, with an estimated 1,020 billion annual kilowatt-hours.[74] Yet some wind industry developers adhere to the same destructive practices as other sectors of the energy industry, successfully defeating attempts to impose comprehensive environmental regulation and purposely selecting sites in remote, often ecologically sensitive areas in order to minimize the number of citizens who might fight a project.[75] While wind energy should be aggressively developed in Montana, site analysis should carefully screen out sensitive areas, utilizing the best science available to achieve the economically feasible power generation with a low environmental impact.

The Nature Conservancy recently published a guidance report that greatly helps developers make informed site selections.[76] It analyzed the estimated 17 million acres in Montana rated good-to-superb for wind potential and identified at least 7.7 million acres at high risk of adverse impact by wind development. The report focused primarily on ecological indicator species thought susceptible to wind development-related impact, including sage grouse and other grassland endemic birds, waterfowl and wetland dependent bird species, bats, grizzly bear, and mule deer, antelope, and elk winter habitat.

The report did not examine migration corridors, and openly acknowledged that it served as only a rough preliminary screening for site suitability. It identified 9.2 million acres that it considered at low risk for ecological impacts from wind development, and especially encouraged development on the 4.4 million acres it identified as cropland, noting that these areas pose minimal ecological risks and often have existing roads and are more amenable to transmission siting.[77]

While Washington, California, and Minnesota have adopted ad-hoc regulations for new wind projects, Montana currently lacks a regulatory framework for formal review of siting proposals.[78] The state should implement some form of site evaluation. It could work with organizations like *The Nature Conservancy* to establish a range of categories for lands with suitable wind resources, predetermining which lands do not require review, which do, and which are restricted from development.

As noted above, building a distributed grid rather than large-scale centralized wind farms would reduce the need for additional transmission lines with their attendant line loss. Although Montana has passed a number of financial and regulatory incentives to encourage new transmission, and some large wind parks are necessary, high capacity lines continue to negatively affect wildlife. Widely dispersed wind turbines would also greatly improve the chance that some turbines continue to catch a breeze when the wind dies down in other areas. Montana is lucky in this regard, because unlike states with more uniform wind patterns like the Dakotas and Kansas, the Rocky Mountains effectively chop up weather systems, making them less predictable but increasing the chance that a widely distributed grid continues to receive wind somewhere.[79]

Small installations with proper site screening and review greatly reduce environmental impact by requiring fewer roads, smaller transmission lines, and reducing the physical profile encountered by migratory and local species. While large scale centralized wind farms reduce initial capital outlays, enhanced grid reliability from smaller distributed installations would reduce the amount of backup power required and reduce the impact of maintenance outages.[80]

Montana should enact a legal framework that encourages the development of small-scale distributed wind generation. While the state should adopt some form of new site environmental review, such legislation should offer a simplified process for midsized installations and exempt small installations, perhaps anything below three megawatts. The state currently only authorizes net metering for installations up to 50 kW, unlike Colorado, New Jersey, or Pennsylvania, which allow up to 2 MW.[81] Revising this scheme would allow local organizations and industries to add single tower installations across the grid. The state could establish a loan fund to facilitate such projects, or offer similar tax incentives to favor distributed generation.

D. Solar

The Renewable Energy Atlas of the West estimated Montana's annual solar electricity generation potential to be 101 million MWh/yr.[82] Despite the fact that most of the state is situated north of the 45th parallel, its major cities receive insolation rates comparable to Sacramento, California and Eugene, Oregon.[83] While Montana's climate characteristics most likely will not support concentrating solar power, photovoltaic (PV), solar water heating, and passive solar building design should be incorporated into the state's energy mix, especially since peak energy demands roughly coincide with the highest solar output, further shaving system capacity requirements.

While PV technology improved dramatically in the last decades, cost effective models typically only achieve efficiencies around 15 percent. While more advanced technologies reach greater than 35 percent, they remain far too expensive for widespread deployment.[84] Montana's generally excellent air quality, low humidity, and cool temperatures, however, provide optimal conditions for PV installations.[85]

Although PV remains expensive compared to other forms of power generation, the state should encourage their deployment by increasing the current $500 tax credit to something closer to the $6,000 offered by the State of Oregon.[86] Photovoltaic arrays are exempted from state property tax evaluations for ten years, but property owners must file an application with their county assessor's office before March 1 to qualify for that tax year. The state should automatically, and permanently, exempt qualifying green renewables from property assessment. Coupled with federal incentives, such measures would significantly encourage PV installation.

Even without expected technological advances, PV will become more cost effective if real time or time of day power pricing is adopted, because peak power ordinarily coincides with solar operation. That, coupled with projected increase in the cost of carbon-based power, will make PV much more competitive. A two-kW residential system providing approximately 300 kWh per month would roughly halve the average Montana household's power requirements and GHG emissions.[87]

Although solar water heaters must be carefully selected to perform in Montana's cold winter climate, they usually outperform electrical water heating over the life of a properly installed system. Coupled with efficient appliances and ordinary conservation measures, they can significantly cut heating costs for the average family, and qualify for the same tax incentives and rebates as PV.[88]

Passive solar building design in its basic form is the easiest technology to implement but remains underutilized. Selecting the proper building envelope, orientation, and fenestration for the particular climate and site location can greatly reduce heating or cooling bills over the life of the building. Montana homes should be oriented

east to west on their long axis with unobstructed southern exposure to maximize winter solar radiation absorption. Most of the building's windows should be placed along the south side of the home for the same reason, with minimal glazing on the north side. Such simple planning, along with greater levels of insulation and air tight construction techniques along with more innovative inclusions like Trombe walls and heat storage mass, create super efficient buildings that are comfortable and inexpensive to operate.[89]

Solar energy is one of the cleanest, most dependable, and predictable power sources readily available on our planet. The technological breakthroughs and economies of scale predicted for solar in the 1970's never materialized, but those failures stemmed from uncertain incentives and funding cuts due to political upheavals, rather than physical impossibilities.[90] After all, photosynthesis drives the majority of the earth's food webs, and it is foolish to believe that properly funded research will not yield the same innovation curves established for similar industries.

E. Geothermal

Any discussion of geothermal power inevitably turns to The Geysers, a California steam-driven power operation primarily owned by Calpine Corporation. Operating commercially since the early 1960's, the 23 sites' combined unit capacity is 2,043 MW, serving Sonoma, Lake, and Mendocino counties. It is currently the largest complex of geothermal plants in the world, providing fully one quarter of California's green power. [91] Although it recovers and recycles only about 25 percent of its steam, the plant began operating a 29-mile underground pipeline in 1997 that delivers eight million gallons of treated reclaimed water from Lake County to The Geysers to recharge the aquifer.[92]

In 2007, MIT released an extraordinarily comprehensive 18-panel member overview of Enhanced Geothermal Systems (EGS), entitled *The Future of Geothermal Energy*.[93] The report noted the benefits of generating base load power from EGS, namely its widespread distribution, base load dispatchability without storage, small footprint, and low emissions.[94] The report found that with reasonable investments in research and development, EGS could provide 100 Giga Watts (GW) of base load generation in the next 50 years, with commercial scale performance verification within a 10 to 15 year nationwide period.[95]

In *The Future of Geothermal Energy*, the panel noted that EGS provides an excellent compliment to intermittent renewables, and could readily replace fossil fuel or nuclear power. The report recommended increased federal funding for Research, Development, and Demonstration (RD&D) in a few technical areas, and cooperative efforts with the European Union and Australia, which both have more advanced programs underway. The report also recommended using coproduced hot water from existing oil and gas operations to generate an estimated 11,000 MW of electricity using standard binary-cycle technology.[96]

In brief, *The Future of Geothermal Energy* wholly endorsed the advancement of all types of geothermal energy utilization, including small-scale ground source heat pumps, binary-cycle geothermal power, and enhanced geothermal systems. Amongst its major recommendations was federal support for EGS resource characterization and assessment, as well as resource development beginning with targets of opportunity on the margins of existing hydrothermal systems and in areas with natural recharge, or other representative sites within high-grade areas.[97]

Amongst its other blessings, Montana's location in a geologically dynamic region over a thin part of the earth's crust makes it a natural target for early geothermal electrical generation, both with EGS and binary-cycle geothermal power. Montana has over 50 known geothermal fields with at least 15 known high-temperature sites.[98] Although the *CCAC Final Report* recommends increasing incentives for all renewables including geothermal, it does not address specific measures to stimulate geothermal development within the state.[99] The state should work closely with federal agencies and private corporations to characterize the geothermal resources located within its geographic bounds. Following the identification of viable sites, the state should adapt its regulatory framework and tax incentives to encourage the immediate development of at least a handful of sites for electrical generating capacity.

Along with other green renewables, the state should increase the tax credits that it offers for commercial and residential ground-source heat pumps, and use the Montana DEQ to disperse information and further encourage their deployment, especially in new construction. The state should generally take a proactive approach to encourage the utilization of this resource both for thermal applications and for electrical generation.

F. Biomass and Biogas

Agriculture and timber production continue to factor prominently into Montana's economic mix. Emissions from Montana's agricultural sector were estimated at 7.9 MMtCO2e for 2005, while agricultural soil conservation programs, forestry, and land use were optimistically estimated to sequester 25.4 MMtCO2e that same year. There has been significant political support for creating additional markets for Montana's agricultural and forest products for transportation fuels and electrical generation, as well

as expanding agricultural land furlough programs such as the Conservation Reserve Program (CRP) and creating other markets for carbon sequestration.

The *AERO Blueprint* promotes biofuels both as a means of reducing net GHG emissions and as a major stimulus to the Montana agricultural industry. The *Blueprint* suggests that gasoline could be replaced with an E85 ethanol blend, with about 80 to 100 million gallons derived from feed and malt barley, 50 million gallons distilled from sugar beets, with the remaining 280 million gallons of the state's remaining gasoline consumption coming from cellulosic biomass conversion of wheat and barley straw or prairie grasses. It also proposes the generation of biodiesel grown from oil seed crops. [100]

There are currently no fuel ethanol distilleries operating in Montana, although there are several state level incentives designed to encourage approximately 50 million gallons of instate production capacity.[101] The *AERO Blueprint* recommends adopting regulations similar to those enacted in Minnesota, which limits the size of ethanol distilleries in order to make it easier for farmer owned cooperatives to compete.[102] The *Blueprint* unfortunately performs little analysis of potential land use impacts from such a massive production shift, beyond perfunctory assurances of environmental compatibility.

In order for biofuels to successfully displace GHG emissions from fossil fuels, the entire production system must be overhauled. Farm machinery and feed stock transport must themselves run on biofuels, while petroleum-based inputs like fertilizer and pesticides must be avoided. The ethanol or biodiesel refineries and distribution systems must similarly run on renewable energy (the *Blueprint* recommends biogas). Low-till organic agricultural methods should be encouraged through tariffs or tax incentives such as those currently available through a state proxy of the Natural Resources Conservation

Service (NRCS) Environmental Quality Incentives Program (EQIP), which pays farmers up to $3,500 per year to adopt organic practices.[103] Widespread organic farming would create ancillary benefits by reducing nitrogen oxide production for synthetic fertilizer, and boosting soil organic content thereby sequestering carbon.[104]

If Montana farms begin to produce just under a billion gallons of transportation fuel annually in order to meet instate consumption, more margin farmland will be put into production, and farmers will increasingly opt out of CRP and similar wildlife habitat programs. Montana is currently loosing about 7,200 acres of agricultural land each year to development, however, and biofuels feedstock revenue might slow that trend by increasing operational profitability.[105] Ultimately, petroleum-based fuels must be replaced by some alternative. Aggressive vehicle fleet efficiency standards and conservation measures, increased public transportation options, and a variety of vehicles powered by batteries and biofuels will make balancing the tradeoffs less onerous.

A number of Montana communities are turning to forest residues as a fuel source for public and large private buildings. The U.S. Forest Service has established a *Fuels for Schools & Beyond* program that helps schools and other public institutions install wood chip furnaces. The wood stock is supplied by forest thinning operations instituted for fire control.[106] Although the use of woody biomass is preferable to fossil fuel, Montana's relatively dry, low growth forests should be conservatively managed to avoid becoming over-utilized. Investments in building efficiency and alternatives like ground source heat pumps or biogas could prevent demand from growing beyond sustainability.

Although manure management, wastewater treatment, and solid waste landfills represent a small combined total of Montana's GHG emissions, the benefits of their

capture undergoes a multiplying effect when the resultant biogas is productively utilized rather than simply being flared, thereby offsetting the use of fossil fuels elsewhere in the system.[107] Although the technology is deployed in over 4,000 locations in Europe and is well established, only a handful of landfill biogas collection projects are underway or operational, and most flare the gas.[108]

A few anaerobic digester projects have been built in Montana, but most projects have been demonstration rather than production scale.[109] Digesters could reduce GHG emissions and improve water quality while providing conditioned gas for either farm operations or electrical generation, solids for plant or animal bedding, and semi-treated liquid for organic fertilizer application. The state should create a loan fund for farms, municipalities, and counties to install the technology and invest in projects that use the gas for heat, electricity, or for industrial process gas.

VI. Conclusion

Even if overriding forces unexpectedly negated the effects of human climatic forcing inputs, a significantly carbonless economy, if properly developed, would yield innumerable environmental, social, and economic benefits beyond GHG mitigation, including improved air and water quality, enhanced public health, reduced land use impacts, and a more equitable dispersion of wealth. At most, coal reserves would remain for utilization by future generations of Montanans.

While Montana will lose a significant revenue stream by not developing its vast coal and natural gas deposits, the state will more than replace those revenues if it takes an active approach to promote the responsible development of green renewable technologies. Such a strategy would create a wide array of jobs spread more evenly

across the state, make the state's economy more competitive in the coming era of regulated carbon, and set a clear precedent for other states and countries to follow.

While inertia and vested interests prevent some political and business leaders from embracing a new clean economy, the scientific basis for doing so becomes increasingly stark and not a little tragic. The global climate does not bargain or accept half measures and compromise, and Montana's total energy development strategy is simply incompatible with carbon mitigation. While we can no longer avoid some of the effects of climate change, there is still time to chart a course that will minimize the likelihood of shifts so potentially catastrophic that they threaten the continued viability of our species.

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[1] The glaciers in the Blackfoot–Jackson Glacier Basin of Glacier National Park, Montana, decreased in area from 21.6 square kilometers (km2) in 1850 to 7.4 km2 in 1979. Over this same period global temperatures increased by 0.45ºC (± 0.15ºC). Myrna H. P. Hall and Daniel B. Fagre, *Modeled Climate-Induced Glacier Change in Glacier National Park, 1850- 2100*, BioScience, 2003, 53: 131-140.

[2] Mark Kinver, Climate shift 'killing US trees', BBC News, 01/23/2009, http://news.bbc.co.uk/go/pr/fr/-/2/hi/science/nature/7841030.stm.

[3] Bates, B.C., Z. W. Kundzewicz, S. Wu and J.P. Palutikof, Eds., 2008: *Climate Change and Water*. *Technical Paper of the Intergovernmental Panel on Climate Change*, IPCC Secretariat, Geneva 210 pp.

[4] *Low Flows, Hot Trout: Climate Change in the Clark Fork Watershed*, The Clark Fork Coalition, July 2008, http://www.clarkfork.org/climate-action-in-the-clark-fork/low-flows-hot-trout.html.

[5] Bryan Walsh, What Washington Can Learn from Montana, Time, Jan. 14, 2008, http://www.time.com/time/health/article/0,8599,1703360,00.html?xid=feed-cnn-topics.

[6] *U.S. States, Canadian Provinces Announce Regional Cap-and-Trade Program to Reduce Greenhouse Gases*, Western Climate Initiative Press Release, September 23, 2008, http://www.westernclimateinitiative.org/ewebeditpro/items/O104F19871.PDF.

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[8] Matthew Brown, In Montana, coal's future enters governor's race, USA Today, 9/19/2008, http://www.usatoday.com/news/politics/2008-09-19-1877091299_x.htm.

[9] Cliff Bradley, et. al., *Repowering Montana, A Blueprint for Home Grown Energy Self-Reliance*, Alternative Energy Resources Organization (AERO), Third Edition, http://www.aeromt.org/BLUEPRINT.php.

[10] The Report was prepared by Center for Climate Strategies for the Montana Department Environmental Quality. Alison Bailie, Stephen Roe, Holly Lindquist, Alison Jamison, et al., *Montana Greenhouse Gas Inventory and Reference Case Projections 1990-2020*, MT DEQ, 2007, p4, http://www.deq.mt.gov/ClimateChange/Data/GreenhouseGasInventory.pdf.

[11] *Background Document and Progress Report for Essential Requirements of Mandatory Reporting for the Western Climate Initiative*, Western Climate Initiative, Third Draft, January 6, 2009.

[12] A Carbon Dioxide equivalent includes the six types of gases included in the U.S. Greenhouse Gas Inventory: carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF6). Alison Bailie, Stephen Roe, Holly Lindquist,

Alison Jamison, et al., *Montana Greenhouse Gas Inventory and Reference Case Projections 1990-2020*, MT DEQ, 2007, p1, http://www.deq.mt.gov/ClimateChange/Data/GreenhouseGasInventory.pdf.
[13] *Id.*, p3, FN p4.
[14] *Inventory of US Greenhouse gas Emissions and Sinks:1990-2004*, US EPA, 2006, http://www.epa.gov/EPA-AIR/2006/February/Day-27/a2734.htm.
[15] Alison Bailie, Stephen Roe, Holly Lindquist, Alison Jamison, et al., *Montana Greenhouse Gas Inventory and Reference Case Projections 1990-2020*, MT DEQ, 2007, pvii, http://www.deq.mt.gov/ClimateChange/Data/GreenhouseGasInventory.pdf.
[16] *Id*., pp 3-5.
[17] *Id*., p3, Table 1.
[18] Land-based estimates have been unable to account for a large portion of the carbon sink identified by atmospheric based studies. Though previous work has provided insight into the discrepancy between land- and atmosphere-based carbon sinks, land-based estimates need to be refined, especially for woody encroachment of western grasslands and for carbon storage in soils (Pacala et al., 2001). Woody encroachment was thought to increase carbon storage but the carbon sink previously attributed to woody encroachment of grassland has likely been overestimated because of reduced root biomass when shrubs replace grasses (Jackson et al., 2002). Thus, the location of specific terrestrial carbon sinks in North America and their capacity to sequester atmospheric carbon remains poorly defined.
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(1) allow net metering systems to be interconnected using a standard kilowatt-hour meter capable of registering the flow of electricity in two directions, unless the commission determines, after appropriate notice and opportunity for comment:
(a) that the use of additional metering equipment to monitor the flow of electricity in each direction is necessary and appropriate for the interconnection of net metering systems, after taking into account the benefits and costs of purchasing and installing additional metering equipment; and
(b) how the costs of net metering are to be allocated between the customer-generator and the utility; and
(2) charge the customer-generator a minimum monthly fee that is the same as other customers of the electric utility in the same rate class. The commission shall determine, after appropriate notice and opportunity for comment if:
(a) the utility will incur direct costs associated with interconnecting or administering net metering systems that exceed any offsetting benefits associated with these net metering systems; and

(b) public policy is best served by imposing these costs on the customer-generator, rather than allocating these costs among the utility's entire customer base.

History: En. Sec. 3, Ch. 323, L. 1999; amd. Sec. 16, Ch. 491, L. 2007.

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(2) The commission, after appropriate notice and opportunity for comment, may adopt by rule additional safety, power quality, and interconnection requirements for customer-generators that the commission or the local governing body determines are necessary to protect public safety and net metering system reliability.

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Nowakowski, Sonja

From: Sally [s_mcburney@yahoo.com]
Sent: Wednesday, December 16, 2009 10:33 AM
To: Nowakowski, Sonja
Subject: Energy efficiency

Dear Interim Energy Committee Members,

As a consumer-owner of my electric cooperative, I am writing regarding your request for comment on conservation, energy efficiency and energy efficiency standards for new building construction. I am grateful for the Legislature's long history of preserving electric cooperatives' local control on government policies that affect my electric cooperative.

Although conservation and energy efficiency are very important, who pays for it is critical. Mandates that force my co-op to spend money on these programs – beyond its voluntary efforts – could easily raise my electric rates.

In my opinion, a cost-effective action is to address the problem of inadequate and poorly enforced energy efficiency standards for new construction.

Also, please keep in mind two other important considerations. First, not all buildings are heated by electricity, meaning the electricity provider is not the only energy provider. Second, the challenge of retrofitting existing homes and businesses that may have never conformed to energy-use construction standards of the day, let alone today's standards, is not one that should be shouldered by utility ratepayers. The question is whether it is an individual or a societal responsibility. If viewed as a societal responsibility, I believe government incentives, not mandates, are the least-regressive, most cost-effective solution.

Thank you for your kind consideration of my comments. I urge you to preserve local control by leaving energy-use actions affecting utilities in the hands of my electric cooperative.

Best Regards,

John and Sally McBurney

Nowakowski, Sonja

From: Patti [dsbmurph@midrivers.com]
Sent: Wednesday, December 16, 2009 11:08 AM
To: Nowakowski, Sonja
Cc: gary@mtco-ops.com
Subject: Energy Policy

Dear Interim Energy Committee Members,

As a consumer-owner of my electric cooperative, I am writing regarding your request for comment on conservation, energy efficiency and energy efficiency standards for new building construction. I am grateful for the Legislature's long history of preserving electric cooperatives' local control on government policies that affect my electric cooperative.

Although conservation and energy efficiency are very important, who pays for it is critical. Mandates that force my co-op to spend money on these programs – beyond its voluntary efforts – could easily raise my electric rates.

In my opinion, a cost-effective action is to address the problem of inadequate and poorly enforced energy efficiency standards for new construction.

Also, please keep in mind two other important considerations. First, not all buildings are heated by electricity, meaning the electricity provider is not the only energy provider. Second, the challenge of retrofitting existing homes and businesses that may have never conformed to energy-use construction standards of the day, let alone today's standards, is not one that should be shouldered by utility ratepayers. The question is whether it is an individual or a societal responsibility. If viewed as a societal responsibility, I believe government incentives, not mandates, are the least-regressive, most cost-effective solution.

Thank you for your kind consideration of my comments. I urge you to preserve local control by leaving energy-use actions affecting utilities in the hands of my electric cooperative.

Best Regards,

Patti Murphy

McCone Electric Cooperative Director

Nowakowski, Sonja

From: Rita Williams [rwilliams@seecoop.com]
Sent: Thursday, December 17, 2009 9:23 AM
To: Nowakowski, Sonja
Cc: gary@mtco-ops.com
Subject: state energy policy

Dear Interim Energy Committee Members,

As a consumer-owner of my electric cooperative, I am writing regarding your request for comment on conservation, energy efficiency and energy efficiency standards for new building construction. I am grateful for the Legislature's long history of preserving electric cooperatives' local control on government policies that affect my electric cooperative.

Although conservation and energy efficiency are very important, who pays for it is critical. Mandates that force my co-op to spend money on these programs - beyond its voluntary efforts - could easily raise my electric rates.

In my opinion, a cost-effective action is to address the problem of inadequate and poorly enforced energy efficiency standards for new construction.

Also, please keep in mind two other important considerations. First, not all buildings are heated by electricity, meaning the electricity provider is not the only energy provider. Second, the challenge of retrofitting existing homes and businesses that may have never conformed to energy-use construction standards of the day, let alone today's standards, is not one that should be shouldered by utility ratepayers. My home was built in the 1880's - there is no way it would conform to today's standards and I don't feel other members of my co-op should have to help pay to update it. If retrofitting is viewed as a societal responsibility, I believe government incentives, not mandates, are the least regressive, most cost-effective solution.

Thank you for your consideration of my comments. I urge you to preserve local control by leaving energy-use actions affecting utilities in the hands of my electric cooperative. We have way too much government already.

Best Regards,

Rita M Williams
Ekalaka, MT 59324

Nowakowski, Sonja

From: Barbara Geller [gellerbj@gmail.com]
Sent: Thursday, December 17, 2009 3:38 PM
To: Nowakowski, Sonja
Subject: Energy Policy

Ms Nowakowski,

I understand you're on a committee looking at MT's energy policy. My two cents:

- I'm thrilled that our utility provider, Northwestern Energy, provides energy audits plus some free weatherizing materials. We have taken advantage of that, but I understand that service is not ubiquitous around Montana. Can you get it expanded to everyone? And then publicize it? I think the goal should be to have every household over 5 years old get an energy audit so they know what can be done to reduce energy costs. That helps homeowner's budgets, it reduces the USA's dependence on foreign oil, and it reduces the demands on MT's utility providers to expand their plans. This is some of the cheapest energy we can "buy"!
- Can you get the hardware stores to help publicize the energy audits and rebates on CFL bulbs, hot water heater blankets, and programmable thermostats? Adoption of CFL bulbs would be faster if consumers knew they could essentially get them for free.
- Utilities companies need financial incentives to REDUCE average consumption by their customers. Under normal circumstances, they are incented to cause us to use MORE energy, not less. What can you do to change their incentive structure?
- What is Montana doing to encourage smart grid implementation? We just moved here from Texas, where we had rolling brownouts on peak consumption days because we could not produce enough energy. That's bad enough when it's 112 degrees, but it could be fatal when it's 30 below zero.
- We're blessed with sunshine and wind here. Let's take advantage of it.
- At the same time, we need to encourage more local production and consumption to reduce our states use of gasoline for transportation.

Barbara Geller
393B Chase Way
Bozeman MT 59178

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Nowakowski, Sonja

From: Sue Dickenson [suedickenson@yahoo.com]
Sent: Thursday, December 17, 2009 10:38 PM
To: Nowakowski, Sonja
Subject: Comment for interim committee

Dear Committee:

I have commented throughout your process and have already emphasized the benefit of energy conservation and efficiency as the "first fuel" for Montana. Things like tougher building codes save energy and long term benefits the property value for the consumer. Also energy efficiency installation and development means good jobs for Montanans which cannot be outsourced. Increasing the tax credit for those citizens who increase the energy efficiency of their home would be helpful to consumers and makes good sense. Energy efficiency standards should be established for utilities, for sure, similar to renewable portfolio standards. Together we can do many great things to provide plenty of energy to our citizens in the future and be more gentle to our environment.

Thank you for considering these comments.
Respectfully, Sue Dickenson, HD 25

Nowakowski, Sonja

From: ravenridge@centurytel.net
Sent: Friday, December 18, 2009 12:53 PM
To: Nowakowski, Sonja
Subject: Comments on future energy legislation

Dear Committee,

The time was 20 years ago to require any new construction to have minimum standards of efficiency, components of passive solar design in the architecture, and installed raceways for future solar Hot water and photovoltaic collectors. The cost is minimal and the added value to any newly constructed buildings is great.

Thank-you,

Kip Drobish
Oso Renewable Energy
Kila, Montana.

Comment on Montana Energy Policy

Imagine that you were presented with a proposal to create an incentive to individual Montanans to reduce their energy consumption but they could only use solar energy, wind energy, geothermal energy, or renewable energy resources like wood and wood pellets in their residence. In all other buildings those technologies would not count. You may think no one would create a program like this. It wasn't intentional, but, through unintended consequences, this is the current program in Montana.

Here's how this evolved. Dating back to 1977 MCA 15-32-201 allows a credit for investing in alternate energy generation systems used specifically to heat the taxpayers principle residence. In around 1981 MCA 15-32-109 was enacted and allows a credit for investments in energy conservation purposes in all buildings owned by a taxpayer. The confusion , and its consequences, arises from the question of what qualifies as an energy conservation purpose. It is defined in MCA 15-32-102 (4) as "Energy conservation purpose" means one or both of the following results of an investment:

(a) reducing the waste or dissipation of energy; or

(b) reducing the amount of energy required to accomplish a given quantity of work.

This seems pretty simple on the surface. Most of the world would conclude that burning any fuel at higher efficiency would reduce waste and that using solar energy to replace gas, electric, and oil heaters would also qualify as energy conservation. In Montana that isn't the case.

The Department of Revenues position is that any investment which could qualify for the alternate generation credit (MCA 15-32-201) cannot qualify for the conservation credit (MCA 15-32-109) even when installed in buildings other than residences.

The result is that heating domestic water with solar energy is not deemed energy conservation but installing a more efficient gas water heater is energy conservation. The world at large regards solar domestic water heating as one of the most effective ways of conserving energy. The state of Hawaii will not issue a residential building permit without it. Montana energy policy should acknowledge, not deny, that the use of solar energy conserves energy. Tax credit assistance for this is available only for its use in principle residences under the alternate generation credit. Installing such systems in mother in law apartments, bunkhouses, shops, or any other building does not generate the tax credit.

In addition, replacing a gas heater with a gas heater of higher efficiency does qualifies as an energy conservation purpose in any building but, replacing a wood stove or a pellet stove with one of higher efficiency does not qualify as an energy conservation purpose and tax credit assistance is only available in a principle residence. Once again the incentive and the message are at odds with other statements that support renewable energy and the appropriate use of biomass resources.

The net effect is that we do have incentives to retain and upgrade fossil fueled equipment in all buildings. We do not have incentives to install solar thermal, solar electric, high efficiency wood or pellet heaters, or other alternate energy sources in individually owned buildings that are not principal residences.

Does this require a change in the law? No, it does not. This situation exists because of the Department of Revenues interpretation. It is not statutory. It may be corrected by statute or it may be corrected by developing consensus with the Department of Revenue that legislative intent would be served by recognizing that some investments may legitimately qualify for either credit, but obviously not be used more than once.

Montana energy policy should embrace solar, wind, biomass and other renewable energy as a component of energy conservation in all buildings.

Guy Hanson
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"Energy Policy"
Suggestions for ETIC Execution of SB 290
December 18, 2009

TO: Sonja Nowakoski, Legislative Services Division
FR: Bob Decker, The Policy Institute

Ms. Nowakoski:

This letter is written in response to your solicitation of November 20, 2009 for public input on how the Energy and Telecommunications Interim Committee can fulfill the mandate of SB 290 and formulate revisions in Montana's energy policy. Specifically, this letter addresses the issue your solicitation identifies as "increasing energy efficiency standards for new construction."

Here are two ideas that ETIC can pursue to promote energy efficiency standards for new construction in Montana:

1) Analyze and strengthen Montana's current system of ***enforcement*** of energy conservation requirements in state building codes;

2) Revise and modernize the professional representation on Montana's Building Codes Council by establishing qualifications for some Council members based on energy management and expertise.

<u>Enforcement of building codes</u>
It is widely agreed – among building contractors, conservation organizations, electric co-operative leaders, et al – that enforcement of energy conservation codes on new structures built outside of municipalities does not happen in a meaningful way. For new residences in non-municipal, i.e., rural, areas, energy code compliance consists of the contractor leaving a sticker of code-related construction information on the electrical box of the new structure. It's a volunteer system that, according to most observers, is not faithfully executed and never monitored, with the result that many new residential structures in rural Montana fail to meet code and immediately become expensive, energy-wasting investments for the new owners.

Although the number of new residential structures in Montana fell to 2,074 in 2008, the annual average in previous years was closer to 3,100 units. Many observers estimate that 50 percent of new homes in Montana are built outside of cities (where building codes are typically enforced through established building code departments of

municipal governments), which means that 1,000 to 1,500 new residences are built annually in Montana that have no effective oversight for energy conservation standards.

During the past year, the Montana Department of Labor and Industry undertook a process to update and strengthen the energy requirements of Montana's state building code, which is used throughout the state. Various participants in the process observed during the public input phases of the process that building code compliance was weak to non-existent in many areas of non-municipal Montana.

At this late stage in the Department's process, it appears that the new Montana code will result in significant energy savings. That's good news for energy management in code-conscious municipalities, but may not mean much in areas of the state where code compliance isn't pursued. Code substance, in other words, is only half the battle; the other half is *enforcement*.

The energy wasted by non-enforced building codes in rural Montana is expensive to the buyers of new homes and harmful to the state's economy. ETIC could change that situation by thoroughly investigating ways in which code compliance could be initiated and sustained on *all* new structures in the state. Support for such compliance would be both strong and diverse, coming from interests ranging from electric co-op leaders, new home purchasers, community businesses, and public interest organizations.

<u>Modernization of Building Codes Council</u>
The make-up of the Building Codes Council is determined by 50-60-115, MCA ("Building codes council – purpose and structure"). According to that statute, the Council consists of 12 members, all appointed by the governor for three-year terms.

(It should be noted that the Building Codes Council has an advisory role and does not hold final authority on the adoption of building codes. In practice, however, the Council's meetings provide the venue for public input of code proposals from the executive branch, and in tradition, the Council's recommendations for code adoption and change have usually defined the final code product.)

The statute mandates that the Council consist of:

- a licensed, practicing architect;
- a licensed, practicing professional engineer;
- a representative from the building contractor industry;
- a local building inspector;
- a representative of the manufactured housing industry;

- the director (or designee) of the state department of public health;
- a licensed electrician;
- a licensed plumber;
- a licensed elevator mechanic;
- the state fire marshal (or designee);
- a representative of the home building industry;
- a member of the general public.

The existing make-up of the Building Codes Council leans heavily toward the building industry, with at least 8 of its 12 appointees qualified by their presumably active involvement with the industry. This emphasis isn't categorically undesirable, as the Council reviews changes in all elements of Montana's building codes (energy, plumbing, mechanical, electrical, etc.), and its actions no doubt benefit by the presence of so many specialists from the industry.

However, as the importance of energy management has grown enormously in recent times, the absence of explicitly educated, trained, or experienced professionals in the field of energy has become glaring. While several of the professions represented on the Council can rightly claim to have some degree of expertise in one or more aspects of the broad field of energy management, no appointment to the Council is made that would require knowledge of, say, the economics of energy management in buildings or the various interrelationships between local, state, federal, and other institutional frameworks for conserving energy in building construction on a wholesale level.

Nowadays, public and nonprofit institutions dedicate focused attention to energy management in buildings, educational and training institutions have created curriculums aimed at specific energy management professions, and businesses exist that offer energy management expertise to the building industry. (As an example, Saturn Energy Resources, headquartered in Helena, offers publications, training, and consultation on managing energy in building construction and maintenance on a national level. The business is staffed with people who are, in fact, professionals of managing energy in buildings.)

With energy management as important as it now is in the building sector, and with building energy management now becoming a profession unto itself, it makes sense for the Montana Legislature to revise the structure of the Building Codes Council to more effectively serve the state's interest in conserving energy and assisting the economy. The Legislature could revise 50-60-115, MCA, to require the appointment of one, two, or more professionals explicitly qualified in the practice of energy conservation in building construction.

To envision how a change in the make-up of the Building Codes Council could improve that body's operation, one can recall how the Council, in the public meetings it held during the past to consider revisions to Montana's energy code, frequently turned to energy specialists in the hearing audience to address specific issues or questions of building energy management. Doesn't it make sense for the Council to have that kind of expertise formally incorporated into its structure?

Energy management, after all, has become just as important to safe and efficient building construction as design, engineering, plumbing, wiring, and other elements of construction. While professionals in those particular professions almost assuredly address energy implications in their work and contribute meaningfully to the Building Codes Council's review of energy code, that overarching relationship of energy management to almost every aspect of building construction provides yet another reason for including qualified energy specialists in the make-up of the Council.

Thank you for your consideration of these ideas.

Respectfully,
Bob Decker
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432 N. Last Chance Gulch
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Phone: (406) 443-7272 / Fax: (406) 442-9120
Email: aero@aeromt.org / Web: www.aeromt.org

December 20, 2009

To: Energy and Telecommunications Interim Committee
From: Ben Brouwer, AERO

Dear Members of the Energy and Telecommunications Interim Committee,

Energy efficiency and conservation are the cheapest and most abundant energy "resources" available in Montana. The Montana legislature must ensure that Montana's citizens can take full advantage of this plentiful resource.

- **Establish an energy efficiency standard for our utilities.** Similar to Montana's successful renewable energy standard, an efficiency standard would require utilities to "acquire" cost-effective efficiency resources by helping businesses and homeowners save energy. Prioritizing demand-side management would limit the need for expensive new power plants and lower energy bills for all Montanans.

- **Consistently apply strong building codes.** Every Montana homebuyer has the right to be guaranteed that their new home meets high efficiency standards, but unfortunately neither the Department of Labor and Industry (which sets the state codes) nor the Department of Environmental Quality (which tracks energy issues in the state) know how many new homes actually meet today's energy codes. In fact only about 50% of new homes built in Montana are even *inspected* for compliance with energy efficiency codes. That's 1,000-1,500 new homes in Montana each year that have no guarantee of energy efficiency. The reason these homes aren't inspected is because they lie outside the municipal jurisdictions that enforce codes.

  ETIC should investigate ways of ensuring code compliance for all new homes in the state. Ultimately, stronger building codes make home ownership more affordable and increase the re-sale and rental value of homes and offices.

Investing in energy efficiency for Montana's households, businesses and industries is a down payment on energy independence for Montana. Montana's elected leaders can help everyday consumers save money and spur the economy by supporting policies that help advance energy efficiency programs at every scale--from the utilities that procure it, to our physical places of business and in our homes.

Respectfully,

Ben Brouwer
Renewable Energy & Conservation Program Manager

Nowakowski, Sonja

From: Don Prevost [donp@lyrec.com]
Sent: Monday, December 21, 2009 8:29 AM
To: Nowakowski, Sonja
Cc: gary@mtco-ops.com
Subject: Energy efficiency standards

Dear Sonya Nowakoski & Interim Energy Committee Members,

As a consumer-owner of my electric cooperative, I am writing regarding your request for comment on conservation, energy efficiency and energy efficiency standards for new building construction. I am grateful for the Legislature's long history of preserving electric cooperatives' local control on government policies that affect my electric cooperative.

Although conservation and energy efficiency are very important, who pays for it is critical. Mandates that force my co-op to spend money on these programs – beyond its voluntary efforts – could easily raise my electric rates.

In my opinion, a cost-effective action is to address the problem of inadequate and poorly enforced energy efficiency standards for new construction.

Also, please keep in mind two other important considerations. First, not all buildings are heated by electricity, meaning the electricity provider is not the only energy provider. Second, the challenge of retrofitting existing homes and businesses that may have never conformed to energy-use construction standards of the day, let alone today's standards, is not one that should be shouldered by utility ratepayers. The question is whether it is an individual or a societal responsibility. If viewed as a societal responsibility, I believe government incentives, not mandates, are the least-regressive, most cost-effective solution.

Thank you for your kind consideration of my comments. I urge you to preserve local control by leaving energy-use actions affecting utilities in the hands of my electric cooperative.

Best Regards,

Donald Prevost

Sdindy, Mt

WESTERN **M**ONTANA ELECTRIC
GENERATING **&** **T**RANSMISSION COOPERATIVE, INC.

1001 SW Higgins, Panorama Park, Suite 206, Missoula, MT 59803-1340

December 21, 2009

BY ELECTRONIC MAIL

Legislative Services Division
Attn. Sonya Nowakowski
P.O. Box 201704
Helena, Montana 59620-1702

RE: Comments of Western Montana G&T on Energy Efficiency

The members of Western Montana Electric Generating and Transmission Cooperative, Inc. (WMG&T) appreciate the opportunity to comment on the Energy and Telecommunications Interim Committee's examination of energy efficiency issues. The seven utility members of WMG&T serve over 100,000 electric consumer/owners in Western Montana and have been very active pursuing energy efficiency for almost 30 years. As such, they have considerable experience with both where the cost-effective energy efficiency exists in their service territories and what the best means to obtain it are.

Often partnering with the Bonneville Power Administration, WMG&T member utilities have been credited with acquiring over 10 MW of energy efficiency that would otherwise have been served with generating resources and enough energy to serve over 7,000 homes. Residential programs have focused on the weatherization of existing structures for all income levels, new construction, lighting, HVAC, windows and appliances. Commercial programs have emphasized lighting, HVAC and refrigeration. Industrial customers have received incentives for motors, lighting and site-specific measures. Irrigation customers have been offered programs that increase the efficient use of water in addition to reducing their power requirements.

The members of WMG&T recognize that for the future energy efficiency is the most cost-effective resource available. They intend to increase their efforts over the next few years to preserve their low-cost, carbon-free resource base and to help keep rates lower than they otherwise would be for their consumer/owners. Not pursuing all cost-effective energy efficiency means that the power supply costs for all a utility's consumer/members would be higher.

The WMG&T members are extremely anxious to work with the Legislature, the Governor and state agencies to make certain that any barriers to acquiring cost-effective energy efficiency are removed and that the most cost-effective combination of programs and measures are offered.

Increasing energy efficiency standards for new construction:
The members of WMG&T support the strengthened energy efficiency standards for new construction included in the recently-proposed 2009 building code update. Constructing new buildings using outdated codes results in excess energy usage for the life of the building. While it is possible to retrofit a building with additional energy efficiency measures, that approach is always more expensive and results in less efficiency than including the efficiency measures when the building is constructed. For example, a concrete slab is not likely to ever be insulated once the building itself is constructed.

Historically, concerns have been expressed about the additional costs to build to higher energy efficiency standards. What this argument fails to incorporate, however, are the higher energy costs that result from constructing an inefficient building.

The members of WMG&T support the newly-proposed Montana building codes that are scheduled to go into effect in the spring of 2010. The increase in the efficiency requirements and the elimination of the basement exemption are both positive steps. However, keeping the energy efficiency exemption for log homes is a missed opportunity.

While the proposed building code changes increasing the energy efficiency requirements are a good step, WMG&T members actually offer incentives to construct homes that exceed the current code by 30 percent and will also result in savings that surpass those from the new code. The Montana Home alternative offered by WMG&T members incents better windows, better basement insulation, above grade wall insulation, additional ceiling insulation, full slab and perimeter insulation and has no basement exemption. While the new code is a good start, better building practices are available and the resulting energy savings are cost-effective for both the consumer and the utility.

Increasing energy code enforcement:
Energy code enforcement in Montana is woefully lacking. Some estimates suggest that 60-80 percent of the new homes constructed in Montana are never inspected for energy efficiency. This is certainly more often the case in rural Montana. The first time a homeowner discovers that their new home has inadequate insulation or other energy efficiency measures is usually during their first heating season; by then, it is often far too late.

Arguments in the past against increasing code enforcement have tended to center on the cost of enforcement, especially in smaller, rural areas. Again, this ignores the long-term costs to owners and the other utility consumer/members of being stuck with an inefficient building.

There are several different ways to deal with enforcement:

- Montana could apply stronger criminal penalties to builders who fail to build to the state energy code. Theft of power from a utility is a felony; theft of energy savings from a consumer and the other utility members should receive the same treatment.

- Allow building owners the opportunity to sue for damages that are equal to the cost of additional energy they will be forced to buy over the life of the building.

- Require inspections of a certain percentage of buildings a contractor builds and then keep a list of contractors and how they do on the inspections. This would allow the public to check and see how well the builders they are considering have met the energy code in the past.

- Montana could require energy efficiency inspections only in counties that meet a certain density level. For example, if counties with 1.5 persons per square mile or less were exempt from requiring inspections for energy efficiency, 18 counties would be excluded but only 4.3 percent of the state's population would not be covered.

The single biggest role the state could play in increasing energy efficiency would be to require greater building code enforcement. Montana requires inspections for electrical, gas, water and sewer systems. Energy efficiency is no less important and should be accorded the same level of emphasis.

Energy Efficiency Incentives:
WMG&T members have offered a variety of incentives and other mechanisms to encourage investments in energy efficiency. Rebate offers have included payments or bill credits for energy efficient appliances, heating and cooling systems, water heaters, lighting, motors and industrial process efficiencies, commercial refrigeration, windows, new construction of site-built or manufactured homes, building shell improvement. Other mechanisms have included free CFL bulbs, coupons for reduced prices on CFLs, free energy audits for electrically heated homes. WMG&T members have also offered incentives and programs to agricultural users, including energy efficient pumping and water distribution systems.

Greater Coordination with State Agencies:
WMG&T members would like to work more closely with the state agencies that fund energy efficiency so as to coordinate our efforts. Because we operate different energy efficiency programs, WMG&T members and the state agencies sometimes seem to be operating at cross purposes. For example, on funding of low-income weatherization, state agencies and WMG&T members have different cost-effectiveness thresholds, and consequently invest in different programs and measures. Better coordination would help to reduce confusion and allow for more cost-effective investments by all parties.

Additionally, monies the state receives from electric utilities for low-income weatherization are not necessarily just spent on electrically-heated homes. As a consequence, the state sometimes ends up using electric ratepayer funding to weatherize homes heated with other fuels. While the cause of weatherizing low income homes is a noble one, money from electric ratepayers should be spent on weatherizing electrically-heated homes.

Lack of participation from liquid petroleum suppliers:
Many homes and businesses in Montana have space and water heating appliances fueled by propane or fuel oil. No energy efficiency programs are apparently available from the suppliers of these fuels. The efficient use of all fuel sources should be a state policy objective. Including these fuels in the Universal Systems Benefits Program charge that is applied to all electric and natural gas sales would provide a source of funding for such a program for the customers that use these fuels. The users of propane and fuel oil should be able to take advantage of energy efficiency programs just as electric and natural gas utilities offer programs to their customers.

Additional Opportunities to Promote Conservation:
Tax credits are critical to encouraging energy efficiency. The existing state tax credits for energy efficiency investments should be continued and if possible increased.

Summary:
The members of Western Montana Electric G&T have been actively promoting and acquiring energy efficiency for almost 30 years. We know where it is and what has to be done to acquire it. As described above, the State of Montana can play a much more active role in helping electric, natural gas, propane, and fuel oil utilities and distributers acquire this resource.

If you have any questions, please feel free to contact me:

William K. Drummond, manager
Western Montana Electric G&T
1001 S.W. Higgins
Panorama Park, Suite 206
Missoula, Montana 59803
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(C) 406.544.0510

Nowakowski, Sonja

From: Jeanne Olson [jeaolson@cyberport.net]
Sent: Monday, December 21, 2009 10:47 AM
To: Nowakowski, Sonja
Subject: Energy Policy

Now is the time for Montana to tighten up its energy efficiency standards. That's the easiest, most cost efficient way to reduce our energy usage. Even small changes in our building codes can have a large effect on reducing energy usage, and long term costs to residual and business owners. (We built an energy efficient-Super Good Cents- house 17 years ago, and it has really paid off.)

We should also establish an energy efficiency standard for utilities, but it needs to have some flexibility to it. (So those utilities that have already taken steps to improve their efficiency are given credit for it, and not penalized).

Thank you.

Dan and Jeanne Olson
160 West Valley Acres
Kalispell, MT 59901

December 18, 2009

Energy and Telecommunications Interim Committee
Legislative Services Division
Attn: Sonja Nowakowski
P. O. Box 201704
Helena, Montana 59620-1704

Re: Senate Bill 290
-Increasing energy efficiency standards for new construction
-Promoting energy efficiency incentives
-Promoting conservation

Members of the Committee:

Thank you for your willingness to entertain public comment in the considerations for improvements to state energy policy.

Energy efficiency standards for new construction appear to be adequate. The effectiveness of the existing standards could be greatly enhanced through incentives designed to reward both the construction company and the home or business owners.

Locally the Flathead Electric Cooperative has several excellent programs designed to reward owners/builders if they participate in the program from the inception of their construction. It is imperative that individuals considering new construction are made aware of incentive programs and if builders also receive an incentive they will be much more likely to suggest energy efficiency measures to their clients.

The promotion of energy efficiency incentives is best done at the point of purchase. For example, when I recently purchased a new washer and dryer I was made aware by the seller of the rebate offered by Flathead Electric Cooperative. This influenced my decision on the items I purchased and the seller, well aware of that fact, promoted it. If the rebate amount was directly related to the energy efficiency of the appliance the seller would also promote that and it would inspire purchases of more energy efficient items. A similar program might be instituted to encourage builders to make their clients aware of incentives for changes in their homes.

Energy conservation is best promoted by both education and most importantly via financial rewards. Individuals and businesses should see a direct fiscal benefit from conserving energy.

In summary, the state energy policy must promote incentives over regulation. The policy should be designed so that the true cost of energy is calculated with all externalized costs included and then a sound strategy developed to reward those who chose to use energy efficiently.

Sincerely,

Joe Brenneman
Flathead County Commissioner
MACo Energy Committee Member

COMMENTS TO THE ENERGY AND TELECOMMUNICATIONS INTERIM COMMITTEE OF THE RENEWABLE NORTHWEST PROJECT AND THE NATURAL RESOURCES DEFENSE COUNCIL

Pursuant to the Committee's invitation NRDC and RNP submit the following comments concerning implementing practices and policies that will advance energy efficiency in Montana.

At the outset I note that the State is failing to take advantage of this resource – to the detriment of the public. As the staff paper correctly notes, in its annual state evaluation the American Council for an Energy-Efficient Economy ranks Montana (generously some believe) 31st in adopting and implementing energy efficiency policies and programs. More distressing Montana's performance is in free-fall. In just 3 years, Montana has dropped from 21st in the nation to 31st in the ACEEE rankings.

The cause of Montana's underperformance is the result of a failure of political and utility leadership. That the State has not enacted policies to ensure that utilities acquired efficiency and that utilities have failed to act in the best interests of their customers is especially striking given increased energy prices in recent years as well as load growth, not to mention concerns over climate change.

The benefits of energy efficiency are so manifest and have been stated so often that I will not go into great detail in this regard. Suffice it to say that study after study has demonstrated the value of energy efficiency. The executive summary of the ACEEE report states:

> In 2009, energy efficiency has risen to a new level of recognition in the U.S. It is a core component of the American Recovery and Reinvestment Act (ARRA) and is a resource that is increasingly being called upon at the state level. This heightened awareness demonstrates that energy

> efficiency – the kilowatt-hours and gallons of gasoline that we don't use due to improved technology and practices – is accurately being recognized as the cheapest, cleanest, and quickest energy resource to deploy. In the race for clean energy resources, states are adopting aggressive energy efficiency policies, increasing investments in efficiency programs, and improving efficiency in their own facilities and fleets.

Another recent study, this one by the National Research Council,[1] found that the deployment of cost-effective energy efficiency in the nation's existing building stock would result in savings that "would offset the EIA (2008a) projected increase in energy use in this sector over the same period." Executive Summary at 5. Accordingly, "the full deployment of cost-effective, energy-efficient technologies in buildings alone could eliminate the need to add to U.S. electricity generation capacity." *Id*. at 3.

The NAS study reiterated the point made by ACEEE above that energy efficiency saves consumers money. Specifically, the NAS found "the estimated average costs of the energy saved (usually termed the "cost of conserved energy," or CCE) in residential and commercial buildings for electricity and natural gas use as a result of energy efficiency measures were dramatically lower than the corresponding average retail prices for electricity and natural gas in 2007, indicating that large savings in energy costs were available." *Id*. at 4 (emphasis added).

Finally, the NAS study emphasized the importance of being pro-active. One of the study's "overarching findings" made this point: "Long-lived capital stock and infrastructure can lock in patterns of energy use for decades. Thus, it is important to take advantage of opportunities (during the design and construction of new buildings or major subsystems, for example) to insert energy-efficient technologies into these long-lived capital goods." *Id*.

[1] http://www.nap.edu/catalog.php?record_id=12621

If efficiency is so good why isn't it just happening, is not an unreasonable question. The answer is complicated and has several aspects. Some of the more important are the following. Focusing on energy efficiency opportunities involves a change in thinking on the part of the utility industry from selling kilowatts and therms and producing and delivering energy to saving energy. As everyone knows, change is hard and is resisted even when that change would produce benefits. This unwillingness to adopt new approaches is reinforced by an incentive system, built into the way utilities recover their costs, that creates financial benefits for utilities to sell energy as opposed to acquiring energy efficiency. Finally, acquiring energy efficiency is difficult. It requires that the efficiency provider work directly with customers, the establishment of programs targeted at specific customer classes and technology, and, if the results are to be optimized, ongoing evaluation and adjustment of the effort. In many respects it's easier for the utility to simply sell energy and build generation.

Given these barriers to efficiency investments it is vital for the State of Montana (or any state) to establish a robust set of policies that allow the benefits from energy efficiency to be realized. There are many initiatives that other states have adopted that are working that could and should be implemented here. These include a strong energy efficiency resource standard that applies to all of the State's major electric and gas utilities and a requirement that Montana utilities adopt rate structures that promote energy efficiency but do not harm low and fixed income customers.

In addition, Title 50, Chapter 60 of the code is in dire need of modernization, clarification, and strengthening. The present set of laws dealing with the state's building

stock and energy efficiency is inadequate and has not and will not serve us well in meeting the energy challenges we will face in the coming decades.

Chuck Magraw
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406-449-3375
c.magraw@bresnan.net

December 21, 2009

Montana Audubon
P.O. Box 595 • Helena, MT 59624 • 406-443-3949 • http://mtaudubon.org

December 19, 2009

To: Montana Energy and Telecommunications Interim Committee (ETIC)
From: Amy Cilimburg, Montana Audubon

Montana Audubon works for solutions to global climate change which protect consumers and our natural systems and wildlife. It is clear that our largest untapped "fuel source" is energy efficiency. Existing energy-efficient technologies could save the state 25-30% on energy spending through 2030 and reduce the need for expensive new power plants. It's time for energy efficiency to be the cornerstone of Montana's energy policy.

Jobs that make new and existing homes, offices, schools and other public buildings more energy efficient are jobs that cannot be outsourced. These are jobs for the long-term, and are needed in rural and urban areas alike. Montana's power companies are critical link to make these efficiencies part of an overall program.

I concur with the many other voices that are asking Montana's elected leaders can help everyday consumers save money and spur the economy by supporting policies that help advance energy efficiency programs at every scale - from the utilities that procure it, to our physical places of business and in our homes.

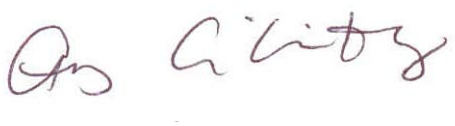
- **First, Montana should start at the source, and establish an energy efficiency standard for utilities**. An efficiency standard is similar to a renewable energy standard and would establish a statewide measurable energy savings goal for utilities. Such a standard would ensure that all major gas and electric power companies are tapping into Montana's reservoir of energy savings, from making power plants more efficient to helping households and businesses reduce energy use. An efficiency standard would reduce the need for expensive new power plants and lower energy bills for all Montanans.

- **Second, Montana can protect businesses and homeowners from paying for wasted energy and help them increase property values by setting and consistently applying strong building codes**. Montana's building codes set the bar for the energy efficiency of new homes and other buildings. With energy-wise and enforceable building codes, our homes would be constructed right from the start – with adequate insulation, air and duct sealing and more – to keep energy bills down and occupants comfortable in any season. Every Montana homebuyer has the right to be guaranteed that their new home meets high efficiency standards. Ultimately, stronger building codes make home ownership more affordable and increase the re-sale and rental value of homes and offices.

- **Finally, Montana can provide better opportunities for its residents to choose efficiency through USB programs and energy efficiency tax credits.** Some utilities already serve their customers through the Universal Systems Benefits (USB) policy, providing low-income home weatherization, free energy audits, as well as coupons and rebates for efficiency improvements at home, from light bulbs to insulation. The legislature should ensure that *all* utilities provide effective programs for their customers. Additionally, residential consumers would benefit from an increase in the state energy efficiency tax credit. The current tax credit is for 25% of the investment and cannot exceed $500. The legislature should consider raising the limit on the Montana tax credit to match the federal limit of $5,000 (i.e. a 25% tax credit not to exceed $1,250).

Thank you for considering these policy recommendations for the next legislative session. To protect our wildlife and natural resources, a reduction in greenhouse gas emissions needs to be a significant priority for this state. Energy efficiency savings are a great part of the solution to global climate change.

Sincerely,



Amy Cilimburg
Director of Bird Conservation, Montana Audubon
amy@mtaudubon.org

NORTHERN PLAINS
RESOURCE COUNCIL

Legislative Services Division
Attn: Sonja Nowakowski
P.O. Box 201704
Helena, MT 59620-1704

December 18, 2009

Re: Comments on Revising State Energy Policy

Dear Energy and Telecommunications Interim Committee:

Thank you for the opportunity to provide comments concerning the Energy and Telecommunications Committee's (ETIC) proposal to review and revise state energy policy. We hope that, through your work to develop a comprehensive energy policy, you will set Montana on a path that stresses energy efficiency, conservation, and renewable energy.

Northern Plains Resource Council (Northern Plains) is a grassroots conservation and agricultural organization that organizes Montana citizens to protect our water quality, family farms and ranches, and unique quality of life. We are pleased that the ETIC will be considering ways to promote conservation, promote energy efficiency incentives, and increase energy efficiency standards for new building construction during your January meeting. Northern Plains is dedicated to promoting efficiency and conservation and we are living our values through our LEED ® Platinum certified office building in Billings that we call the Home on the Range. We renovated an existing building so that it uses 60% less energy to light, heat, and cool from efficiency measures alone (and solar panels on the roof reduce the usage a further 20%) compared to a new building built to today's energy codes. And we did it with upfront cost savings. We know from experience that a solid energy plan must be built on a foundation of energy efficiency and conservation.

Promoting Conservation:
This may be the most difficult item of the three, because conservation is dependent upon behavioral choices. You can promote energy efficiency through programs that weatherize homes, upgrade industrial lighting systems, and put more Energy Star appliances to use. However, behavioral changes are more difficult to influence through policy.

One of the ways that state government can promote conservation is through programs that educate state employees on how to reduce energy consumption. We want to

recognize what the state is already doing as part of the Governor's 20 by 10 initiative to reduce energy consumption by the Montana state government, much of that through conservation.

Energy efficiency policies can have a secondary effect of promoting conservation. This is because people who have made energy efficiency investments and have installed efficiency improvements in their homes and businesses are more likely to pay attention to their electric and gas bills as well as their own behaviors that affect usage.

Promoting Energy Efficiency Incentives:
The State plays an important role in promoting energy efficiency. Energy efficiency requires a capital investment, and though the paybacks are real, oftentimes the upfront cost is too much for homeowners, business owners or utilities to take on without incentives that help ease the financial burden or standards that make efficient choices the norm. Montana already has several programs and policies in place that are encouraging investments in energy efficiency. However, more can be done to promote efficiency.

USB
Montana's Universal System Benefits (USB) policy has led many of our utilities to establish USB programs that serve their customers through low-income weatherization, free energy audits, as well as coupons and rebates for efficiency improvements from compact fluorescent light bulbs to insulation. But all Montanans, regardless of which utility serves them, should have access to USB programs that make energy efficiency improvements more affordable. Some utilities do a better job with USB programs than others. NorthWestern Energy and Flathead Electric Cooperative should be recognized for running effective efficiency programs. But the legislature should ensure that all utilities provide effective energy efficiency programs for their customers.

Tax Credit
Montana's energy efficiency tax credit provides an incentive for Montanans to invest in energy efficiency in their homes and businesses. Each year, the tax credit helps nearly 20,000 Montanans improve the efficiency of their homes and businesses while saving money on their power bills. The federal energy efficiency tax credit currently covers 30% (planned to return to 15% after 2010) of efficiency investments up to $5,000. The legislature should consider raising the limit on the Montana tax credit to match the federal limit of $5,000 (i.e. a 25% tax credit not to exceed $1,250). Since the current credit of 25% is capped at $500, it only applies to investments of $2,000 or less.

Financing
Large institutions such as state buildings, schools and universities can take advantage of project financing through energy performance contracting. In order to help Montana homeowners overcome the obstacle of large capital investments, the legislature should authorize local governments to establish energy improvement districts. Rep. Brady Wiseman sponsored HB 361 during the 2009 session, which would have authorized local governments to issue bonds to fund loans for such a program.

Energy Efficiency Standard

In 2005, Montana passed a Renewable Energy Standard, which is promoting the development of clean renewable energy in our state. Now, it is time to pass an Energy Efficiency Standard, which would ensure that all major gas and electric power companies are tapping into Montana's reservoir of energy savings, from making power plants more efficient to helping households and businesses reduce energy use. An efficiency standard would reduce the need for expensive new power plants and lower energy bills for all Montanans. In 2009, the legislature considered HB 641, sponsored by Rep. Art Noonan. That bill should be improved and brought back in 2011 to create an Energy Efficiency Standard for Montana.

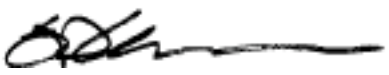
Increasing Energy Efficiency Standards for new building construction:

The best and most affordable way to make a building energy efficient is to build efficiency in up front. That is why we need strong energy efficiency standards in buildings to make energy efficiency in new buildings the norm. Yes, there may be additional upfront construction costs, but remember those costs are spread out over time in the form of marginal increases to a monthly mortgage. But while the monthly mortgage may go up slightly, the savings on the energy bill will more than make up for it; energy efficiency makes home ownership more affordable by reducing the combined total of monthly mortgage and utility costs.

Considering the harsh climate we live in, it is even more important that Montana enact strong building codes for energy efficiency. Any action by the upcoming legislature will be dependent upon the pending action of the Montana Building Codes Bureau. That said, it is important that the State continually update its building codes for energy efficiency to keep up with the latest developments in technology and building practices.

Thank you again for the opportunity to share our thoughts on revising state energy policy. Energy efficiency is the cheapest and fastest source of energy. We can avoid having to build new power plants and construct transmission lines by reducing energy demand, all while saving Montanans money on their power bills. The Northwest Power and Conservation Council's draft 6th plan calls for all load growth in the region to be met with clean energy, utilizing energy efficiency and conservation first. Your work to revise state energy policy should reflect that plan and prioritize energy efficiency and conservation as the first answer to meet our energy needs.

Sincerely,



Ed Gulick, Chair
Northern Plains

MONTANA CONSERVATION VOTERS

Legislative Services Division
Attn. Sonja Nowakowski
P.O. Box 201704
Helena, MT 59620-1704

December 21, 2009

Thank you for the opportunity to submit comments for the upcoming Energy and Telecommunications Interim Committee meeting.

Montana Conservation Voters is the non-partisan, political voice of the conservation and environmental communities, working to protect Montana's clean air, water and outdoor heritage. Energy efficiency should be the cornerstone of the state's energy policy. Energy-efficient technologies exist today that could save the state between 25 and 30 percent on energy spending through 2030 and reduce the need for expensive new power plants.

There are several specific policies the state could adopt to significantly increase its access to this cheap and largely untapped energy source.

First, Montana should start at the source, and establish an energy efficiency standard for utilities. An efficiency standard is similar to a renewable energy standard and would establish a statewide measurable energy savings goal for utilities. Such a standard would ensure that all major gas and electric power companies are tapping into Montana's reservoir of energy savings, from making power plants more efficient to helping households and businesses reduce energy use. An efficiency standard would reduce the need for expensive new power plants and lower energy bills for all Montanans.

Second, Montana can protect businesses and homeowners from paying for wasted energy and help them increase property values by setting and consistently applying strong building codes. Montana's building codes set the bar for the energy efficiency of new homes and other buildings. With energy-wise and enforceable building codes, our homes would be constructed right from the start – with adequate insulation, air and duct sealing and more – to keep energy bills down and occupants comfortable in any season. Every Montana homebuyer has the right to be guaranteed that their new home meets high efficiency standards. Ultimately, stronger building codes make home ownership more affordable and increase the re-sale and rental value of homes and offices.

Finally, Montana can provide better opportunities for its residents to choose efficiency through USB programs and energy efficiency tax credits. Some utilities already serve their customers through the Universal

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MONTANA CONSERVATION VOTERS

Systems Benefits (USB) policy, providing low-income home weatherization, free energy audits, as well as coupons and rebates for efficiency improvements at home, from light bulbs to insulation. The legislature should ensure that *all* utilities provide effective programs for their customers. Additionally, residential consumers would benefit from an increase in the state energy efficiency tax credit. The current tax credit is for 25% of the investment and cannot exceed $500. The legislature should consider raising the limit on the Montana tax credit to match the federal limit of $5,000 (i.e. a 25% tax credit not to exceed $1,250).

Montanans pay more for electricity than any other state in the region. It is time to put energy efficiency technology to work to help Montanans reduce energy use and lower monthly bills. Investing in energy efficiency for Montana's households, businesses and industries is a down payment on energy independence for Montana.

Sincerely,

Theresa Keaveny
Executive Director

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MONTANA ENVIRONMENTAL INFORMATION CENTER

December 21, 2009

Ms. Sonja Nowakowski
Research Analyst
Montana Legislative Services Division
Helena, MT 59620

Submitted via e-mail: snowakowski@mt.gov

Re: Request for comments on efficiency and conservation in state energy policy

Dear Ms. Nowakowski:

Please accept these comments on behalf of the Montana Environmental Information Center. Energy efficiency and conservation should be the foundation of an energy policy for the State of Montana. Energy efficiency is the cheapest and fastest way to help meet Montana's growing energy needs. Consumer actions that reduce individual household energy use are important, but there must be a three-pronged policy approach to take full advantage of Montana's vast energy efficiency potential. The state energy policy must advance and incentivize energy efficiency at the utility, building code and end-user levels.

Energy Efficiency Standard

A key policy to accelerate energy efficiency would be an Energy Efficiency Standard (EES). An EES would establish measurable statewide energy savings goals for electric and natural gas utilities serving the largest number of consumers in Montana. Such as standard would ensure that utility consumers experience economic benefits of energy savings on a utility's system.

An EES would deliver short term and long term economic benefits that include lowering monthly energy bills, protecting consumers from volatile energy prices, and increasing the nation's energy security. According to the Energy Information Administration (EIA), residential natural gas prices in the first 9 months of 2009 averaged $12.68 per million Btu, up 51% from the average price seven years earlier (prices averaged $8.71 per million Btu in the first ten months of 2002).[1] Natural gas prices also varied significantly in 2008 compared to 2009 due to large fluctuations in supply vs. demand. Energy efficiency can reduce the demand for, and the price

[1] Energy Information Administration . 2009. *Natural Gas Navigator: U.S. Natural Gas Residential Price.* http://tonto.eia.doe.gov/dnav/ng/hist/n3010us3m.htm

volatility of these fuels. Requiring electricity and natural gas utilities to set and achieve cost-effective energy savings goals, would ensure that utilities maximize energy savings before building new power plants and transmission infrastructure. Energy efficiency must start at the source with utilities that supply energy, the energy and economic savings will trickle down to the consumer.

Building code efficiency and enforcement

Existing statutes, and recent legislation intend to maximize efficiency in the state energy conservation code for residential and state-owned buildings. MCA 50-60-801, states that "it is the policy of the state of Montana to encourage energy efficiency in residential buildings through strategies that ensure that: investments in energy efficiency are cost-effective, and that the costs of energy efficiency measures on the combination of down payments, monthly mortgage payments, and monthly utility bills does not adversely effect the affordability of housing." Montana can protect businesses and homeowners from paying for wasted energy and help them increase property values by setting and consistently applying strong building codes. During the 2009 Legislature, a bill requiring state buildings to exceed existing International Energy Conservation Code (IECC) standards by 20% passed unanimously. We recommend that a state-wide energy policy include improvements to the 2009 IECC, that would bring new homes up to the standard for state buildings. Just as the 20% beyond-code requirement will reduce maintenance costs for the State of Montana, similar requirements will save Montana homeowners money on monthly energy bills and reduce weatherization and retrofitting costs.

The state energy policy must improve building code enforcement. Without enforcement guidelines, there is no guarantee that new buildings are meeting the current energy code, and no assurance that new homeowners are not inheriting a home that is going to waste energy. New residential buildings in rural areas are the most difficult to verify for code compliance. We realize that code enforcement is not possible without adequate funding. A possible funding source to increase code enforcement that ETIC should consider is federal stimulus funding to create a new rural building code enforcement program. This program would be justified by energy cost savings.

Tax Credits and USB Funding

Montana can provide better opportunities for its residents to choose efficiency through USB programs and energy efficiency tax credits. Some utilities already serve their customers through the Universal Systems Benefits (USB) policy, providing low-income home weatherization, free energy audits, as well as coupons and rebates for efficiency improvements at home, from light bulbs to insulation. The legislature should ensure that *all* utilities provide effective programs for their customers. Additionally, residential consumers would benefit from an increase in the state energy efficiency tax credit. The current tax credit is for 25% of the

investment and cannot exceed $500. The legislature should consider raising the limit on the Montana tax credit to match the federal limit of $5,000 (i.e. a 25% tax credit not to exceed $1,250).

Montanans pay more for electricity than any other state in the region. It is time to put energy efficiency technology to work to help Montanans reduce energy use and lower monthly bills. Investing in energy efficiency for Montana's households, businesses and industries is a down payment on energy independence for Montana.

Thank you for your consideration of my comments.

Sincerely,

Kyla Wiens, Energy Advocate
Montana Environmental Information Center

Attn: Sonja Nowakowski
Legislative Services Division
P.O. Box 201704
Helena, MT 59620-1704

Dear Ms. Nowakowski,

The NW Energy Coalition (NWEC) appreciates the invitation to provide feedback on this third round of energy policy issues being examined by the Energy & Telecommunications Interim Committee. As stated before, NWEC is an alliance of more than 100 environmental, civic, and human service organizations, utilities, and businesses in Oregon, Washington, Idaho, Montana, Alaska and British Columbia dedicated to a clean and affordable energy future for the Pacific Northwest. Along with its 15 Montana member organizations, NWEC has been active in promoting the efficient production and use of energy in Montana for many years.

For these comments, NWEC will be using the term "conservation" broadly, to include energy-efficient technologies, behavioral changes, codes, standards, and utility demand side management programs.

Promoting Conservation

Energy conservation is the cornerstone of an effective energy policy. No other resource offers such an attractive combination of environmental and economic benefits -- by capturing energy currently going to waste and putting it to productive use, conservation provides the best (cheapest AND cleanest) strategy for meeting our growing energy needs. These advantages were recognized and articulated by the U.S. Congress, when it prioritized conservation above all other resources in the 1980 Pacific Northwest Electric Power Planning and Conservation Act. Since that time, the region has built an astounding conservation resource -- at 3700 aMW, it is the third largest electricity resource serving us today, and twice the size of Montana's entire electricity load. Because of these forward-looking investments, residents, businesses, and institutions are enjoying $1.6 billion in energy bill savings each year.

To see how energy efficiency works to save money, one need look no further than the City of Helena municipal government, which reduced its energy use by 22% between 2001 and 2007 for an annual savings to the taxpayer of $640,000. A discussion of these savings and opportunities for another 20% reduction appear in the "Helena Climate Change Task Force Action Plan 2009," which can be downloaded from: http://ci.helena.mt.us/

In addition to these advantages, conservation also remains a highly abundant resource. As technology progresses, more and more options become available. The Northwest Power and Conservation Council's draft 6th power plan recommends that the region can (and should) deploy 5800 aMW of cost-effecitve conservation by 2030 (in addition to the 3700 aMW we already enjoy). The 2009 "Power of Efficiency" report, produced by Ecotope and released by the NW Energy Coalition, came to an even brighter conclusion -- that 5200 aMW of cost-effective conservation could be developed by 2020 -- an amount big enough and fast enough to offset 100% of the region's

projected load growth over that time frame. In addition, the report found that the region could offset half its projected growth in natural gas demand through cost-effective efficiency over that same period.

At the state level, the Montana Climate Action Plan similarly attests to the tremendous value and size of the untapped efficiency resource. Implementing the ten "Residential, Commercial, Institutional, and Industrial" (RCII) recommendations would save a staggering amount of energy -- over $300 million worth by 2020. The three reports mentioned above are available online at the following web addresses:

http://www.nwcouncil.org/energy/powerplan/6/default.htm
http://www.efficiencyworks.org/page3/page22/page22.html
http://www.mtclimatechange.us/CCAC.cfm

The State of Montana has long recognized the benefits of energy conservation, as evidenced by a variety of policy statements and programs scattered throughout the code (and expertly documented by the ETIC's draft report). At the same time, it is clear that Montana could be doing much more. That Montana ranks only 31st in ACEEE's 2009 State Energy Efficiency Scorecard is distressing, especially considering the relatively strong performances of neighboring state's in the Northwest (Oregon 4th, Washington 7th, and Idaho 20th). That Montana is heading in the wrong direction (slipping four places from last year's already unimpressive 27th position) is deplorable. While no such ranking system is perfect, Montana policymakers would be well served by reviewing the specific shortcomings identified for Montana in this detailed, 68-page report.

The ACEEE report is available at:

http://www.aceee.org/energy/state/index.htm

And ACEEE's general summary for Montana is located here:

http://www.aceee.org/energy/state/montana/mt_index.htm

NWEC is encouraged by recent developments in Montana that should help to jumpstart its efficiency efforts, putting it back where it belongs as an energy innovator. These include updates to the state energy building code (that should take effect early in the new year), as well as exciting new proposals coming before the PSC to assist both customers (through conservation-minded rate structures) and utilities (through a "decoupling-plus" package of incentives, which should be filed sometime in early 2010).

<u>Promoting Energy Efficiency Incentives</u>

As with most policy objectives, the best approach for promoting energy efficiency necessarily involves a combination of government and private sector actions. These range the gamut from "command and control" type requirements to financial incentives that make investing in efficiency easier for citizens and businesses, to informal public-private partnerships aimed at outreach and education (after all, what good is an attractive new tax credit, if no one becomes aware of it?). Agencies, schools, utilities, and many others (including Montana's diverse and energized non-profit sector) will play a role.

A quick look at ACEEE's online summary for Montana reveals some good progress being made with utility-sector policies, building codes, and financial incentives, but also some deficiencies in the areas of vehicle policies, appliance and equipment standards, and smart growth and public transport. Even under some of the positive headings, a closer review shows notable areas for improvement. The mere existence of a checkmark does not necessarily translate as evidence of a strong program.

Utility-Sector Policies is a good example. Montana's efficiency and renewable energy tax credits, while respectable when originally enacted, could certainly be bolstered. There have been a growing number of proposals to do exactly that, with at least three bills in 2009 (HB 540, SB 37, and SB 301). Similarly, while NWEC is encouraged by the extension of the USB program earlier this year (HB 27), more could be done to shore up the inconsistent application of the "2.4%" standard. From its earliest days, USB's effectiveness has been constrained by the special provisions granted to the state's electric cooperatives and large industrial customers.

Two other ACEEE boxes -- "Energy Efficiency Resource Standards" and "Decoupling" -- remain completely unchecked for Montana. Since May 2009, NWEC, NRDC, the Montana Consumer Counsel, PSC staff, and others have been participating in a NorthWestern Energy advisory group exploring possible design elements for a decoupling mechanism. NWEC sees great potential for such a mechanism, provided it is accompanied by an enhanced commitment to energy efficiency (in the form of an expanded / accelerated acquisition schedule). NWEC sees an even better opportunity for positive change with an Energy Efficiency Standard, and was proud to support last session's proposal to enact one (HB 641). Such standards are rapidly gaining popularity and proving their effectiveness across the nation. In addition to the Iowa example cited in the draft ETIC report, energy efficiency standards have been adopted in well over a dozen states since Texas enacted the first in 1999. Closer to home, Washington's I-937 provides another excellent example. The Montana Climate Action Plan recommended an energy efficiency standard, estimating that $140 million worth of savings would accrue due to this mechanism alone (nearly half of all RCII savings). For more information on the activity in other states, see:
www.pewclimate.org/what_s_being_done/in_the_states/efficiency_resource.cfm

Numerous other tools touched on by the draft ETIC report (from smart-grid technologies to environmental labeling & disclosure) hold great promise and deserve further investigation. A deeper discussion of strategies for accelerating energy efficiency is available in NWEC's recent report, "Solving the Energy Efficiency Puzzle." In addition, NWEC's "Efficiency Works!" campaign will soon be releasing a report on energy efficiency financing opportunities for small and mid-sized businesses in the Northwest. Both reports will be posted at: www.nwenergy.org

Increasing Energy Efficiency Standards for New Building Construction

Another critical element in Montana's attempt to chart a sustainable energy future is the building sector, and the rules that are developed to ensure safe and affordable structures for future occupants. The 50-100+ year lifespan of buildings means that decisions made today will have major ramifications long into the future. It is

far more cost-effective to include energy efficiency from the start, as an integral component of the design of a building, than it is to circle back later for a retrofit. These are just a couple of the reasons why strong codes specifying minimum efficiency requirements are crucial for success.

Montana is now on the brink of adopting the 2009 International Energy Conservation Code -- an important, and long overdue update to the current 2003 code. Note that prior to the adoption of the 2003 version, Montana's energy code was a full ten years out of date. Montana would benefit from a provision in law guaranteeing regularly updates to the code (three-year intervals are standard). The alternative is foregone opportunities for conserving money and natural resources -- opportunities we can no longer afford to miss out on.

Montana also desperately needs an enforcement mechanism to ensure compliance with the code, particularly in the rural areas of the state. Here again, a code has little value if people are unaware of it, or suspect that it is not being observed. On this topic, NWEC has reviewed the Policy Institute's comments and wishes to echo / endorse the recommended actions.

Again, NWEC thanks the committee for taking up the important topic of Montana's energy policy, and for considering these comments.

Sincerely,

Patrick Judge
Montana Energy Efficiency Advocate
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Nowakowski, Sonja

From: Donald DeLauder [ddelauder@bresnan.net]
Sent: Tuesday, December 29, 2009 1:37 PM
To: Nowakowski, Sonja
Subject: Solar, wind and geothermal energy from private sources unfair in Montana laws

The current laws, rules and regulations concerning solar and wind power are not promoting the advancement of clean energy in Montana by private citizens.
The way this stands now is that if I produce excess energy from solar, wind or geothermal means, that ALL of the surplus energy not used by my household at the end of a 12 month period is automatically granted to the energy company without any compensation to my household for producing that surplus energy in the form of electricity to the energy company.
The energy company (Northwest Energy I my case)then turns around and sells the energy I produced for a profit by the energy company.
This is an absolute deterrent to any private individual to producing CLEAN energy in the state of Montana.
CLEAN energy is produced by solar, wind or geothermal means compared with UNCLEAN energy produced by burning fuels (oil and coal)which produces DIRTY smoke and chemicals into the air we breathe, or by nuclear reaction which we then have to deal with the radioactive WASTE.
Please help us to change the law to promote CLEAN energy production in a fair and reasonable manner where citizens of Montana are rewarded for CLEAN energy production by having the CLEAN energy we will produce to be bought by the energy companies.
If the citizens of Montana see a way of paying for those CLEAN energy systems with reduced energy bills, or even a profitable private energy system in each household, then less power plants will have to be built, less DIRTY fuels burn to contaminate our air, water and lands.

Thank you for your time,
Donald DeLauder

--
Donald DeLauder
Bitterroot Embroidery LLC
ddelauder@bresnan.net