

From: [jill davies](#)
To: [Climate Council](#)
Subject: [EXTERNAL] Climate Council Plan
Date: Sunday, March 29, 2020 2:14:10 PM

Dear Climate Council -

Thank you for the opportunity to comment on your proposal. I am a farmer and I have solar panels and am on the grid with NW Energy so have been following NW Energy's attempts to discourage home solar systems via various rate increases and lobbying against good legislation proposals for better energy systems. I also have seen NW Energy's 20 year plan and am very concerned that they seem to be going in the wrong direction, i.e. buying into Colstrip, planning to build 3 new gas fired power plants, and having no new renewables in their plan. Apparently they cannot read the writing on the wall. We need to teach them to read. So I am helping to gather signatures for **I-187** to put it on the ballot in November. Sadly, the covid19 situation is curtailing our ability to gather signatures so maybe we won't succeed. Now maybe we can improve on your plan, so here are my comments.

1. Economic needs of current industry should not take precedence over sound science and economic predictions. We need to imagine new industries which help us to move away from fossil fuels and still provide jobs.
2. Implementing statewide building codes that require energy efficiency as recommended on p. 9 is a great idea. Please also encourage electricity conservation by implementing a structure that increases rates with increasing use.
3. Thank you for recommending an increase in the allowable size for solar generating systems. Solar electricity is good for everybody (except NW Energy apparently), and should be encouraged as much as possible. This is also a feature in **I-187**. **I-187** will also require utilities to achieve 80% renewables by 2034, allow aggregate net metering, and allow creation of neighborhood renewable energy facilities without restrictive net metering caps among other great features.
4. The Council's goal to achieve *net greenhouse gas neutrality* is essential, but your recommendations do not reflect this goal. What about promoting rooftop solar by offering stronger tax incentives and improve the current net metering program as in **I-187**.

A new economy is coming and the writing on the wall says - **hydrogen!** The council should eliminate coal-fired electricity generation in Montana, not allow new gas-fired generation, provide job training, and support green energy solutions to diversify changing local economies. We will need fuel cells and electrolyzers to split the water molecule and collect hydrogen as well as hydrogen gas infrastructure. Companies all over the globe are gearing up to produce these, as well as vehicles which will run on hydrogen. For example see: <https://www.hydrogeneconomy.org/> [[hydrogeneconomy.org](#)]. Europe is way ahead of the U.S., as usual.

Unfortunately, it appears that your plan emphasizes maintaining and increasing natural resource extraction (agriculture, logging, and mining) rather than helping the economy adapt to changing demands and climate change. We can do better than this.

5. Please remove any consideration of biofuels which have been shown to emit more carbon than coal when the entire production and transportation process involved is considered.

6. Remove or decrease subsidies for resource extraction to bolster the cleaner economies that are developing.

7. Agriculture is a major contributor to greenhouse gasses. Find ways to encourage **Regenerative Agriculture** rather than Industrial Agriculture. We need to learn how to grow food using less fertilizer and fossil fuels while improving soil health and carbon capture capacity. See: <https://regenerationinternational.org/> [regenerationinternational.org].

That's it for now, and for a greener future in Montana.

Sincerely Jill Davies

Jill Davies - Director
Sustainable Living Systems

We make war with our brethren
and our environment
because we do not know our place
in the cosmos.

"We are here to awaken from the illusion of separateness."

--Thich Nhat Hanh



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[\[avast.com\]](http://www.avast.com)

From: [Robert Harp](#)
To: [Climate Council](#)
Subject: [EXTERNAL] Proposals for New Government Mandates to Reduce Greenhouse Gas Emissions
Date: Sunday, March 29, 2020 9:06:11 AM

Dear Sir/Madam:

Montana electric cooperatives don't need additional regulation related to greenhouse gas emissions. These types of California political feel good mandates only create more red tape and costs for cooperatives and are not needed. The cooperatives are already doing a great job concerning the environment. These types of mandates will only result in a higher costs for customers as it has in California. I don't want to be like California!

Robert Harp
Wise River, Montana

From: [Susanne K.](#)
To: [Climate Council](#)
Subject: [EXTERNAL] Government Mandates re Greenhouse Gases
Date: Sunday, March 29, 2020 11:55:40 AM

Dear Council Members:

We are writing to you today to address the proposals before the Council that would impose new government mandates on electric cooperatives.

The electric cooperatives in Montana are already working hard to reduce carbon emissions and use clean energy sources, and they will continue to do so in the future.

In our opinion, additional government mandates are not needed.

Thank you for your time and consideration.

With kind regards,
Albert & Susanne Koch

From: [Karen Lendak](#)
To: [Climate Council](#)
Subject: [EXTERNAL] Mandates
Date: Sunday, March 29, 2020 10:13:22 AM

Montana's electric cooperatives are proven leaders in reducing greenhouse-gas emissions, and in using clean energy sources. Therefore, I do not believe additional government mandates are needed.

Sent from my iPhone

From: [Rocio Muhs](#)
To: [Climate Council](#)
Subject: [EXTERNAL] Public comment: I support clean energy in Montana
Date: Sunday, March 29, 2020 7:55:09 PM

MT Climate Council

RE: Public comment: I support clean energy in Montana

null


Montanans care about the uniquely beautiful mountains and sweeping, lush valleys of our state -- and we want a climate plan that protects these special places for future generations.

I fully support the efforts laid out in the Montana Climate Solutions Plan to reduce emissions, promote energy efficiency and tackle transportation pollution. Furthermore, I believe we need a state-wide energy policy that ensures all Montanans benefit from emissions reduction. Expanding access to climate research, strengthening the Renewable Portfolio Standard and passing a statewide energy efficiency standard would be important steps on the path to a cleaner, more sustainable society.

Montana is already behind other states in their climate goals, and when it comes to protecting our state and world from the worst impacts of climate change, there's no time to waste.

Thank you for your consideration.

Sincerely,
Rocio Muhs


Missoula, MT 59803

From: [Les Arthun](#)
To: [Climate Council](#)
Subject: [EXTERNAL] Comments on draft Montana Climate Solutions Plan
Date: Monday, March 30, 2020 7:19:28 PM

Council Members,

Thank you for your efforts in producing the draft Montana Climate Solutions plan. In addition to the specific comments below, please make it a priority that implementation begin immediately for those measures which can begin right away and that will help reduce greenhouse gas emissions.

-- Please support efforts to expand Montana's ability to understand climate risks and prepare for change. In particular, recommendations 1A through 1H should be funded and acted upon.

-- Montana needs more accessible climate science. Please support a larger Montana Climate Office with more staff, stronger Montana University System climate coordination, research and funding, and increased support from the state to communities so they can develop greenhouse gas reduction and climate adaptation strategies.

-- Recommendations 2A through 2E and 2G through 2K are essential for Montana to reduce greenhouse gas emissions and avoid locking into new fossil fuel infrastructure. Montana is deficient in programs and funding to support energy efficiency and conservation and the key strategies identified, if enacted swiftly and with financial support, are essential. They will save Montanans money while improving public health.

-- A statewide energy efficiency standard would save all Montanans money.

-- Raising the size cap on distributed generation solar systems (aka rooftop solar) would benefit schools, libraries, and other public buildings in their community - saving taxpayer dollars and creating educational opportunities for our youth.

-- Support adoption of low emission vehicle standards and actions that will incentivize/promote/enhance electric vehicles.

-- Please encourage and support community goal setting, energy data collection across sectors, and planning efforts to reduce emissions and save money in local communities.


-- Voluntary controls on oil and gas development are inappropriate. The industry has had decades to voluntarily curb greenhouse gas emissions and has failed to do so. Methane emissions from oil and gas development are easily controlled and should be required. The time has past for voluntary commitments from this greenhouse gas producing sector.

-- Carbon capture and sequestration is not an appropriate climate solution for coal-fired electricity. This unproven technology only makes dirty, expensive coal plants even more expensive and risky. The final recommendations should focus on reducing reliance on coal-fired electricity instead of relying on misguided, expensive, risky, and unproven technology.

Thank you,

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Les Arthun


Wilsall, Mt

From: [REDACTED]
To: [Climate Council](#)
Subject: [EXTERNAL] climate change proposals
Date: Monday, March 30, 2020 2:46:15 PM

To: Montana Climate Solutions Council,

It has come to my attention that there are proposals that are not beneficial to Montana to be considered by the council. I do agree that the climate is changing & we as a country need to address some issues, but some things are not necessary. For instance, electric cooperatives are doing much for the good of our state & yet there are those that want to restrict the co-ops by imposing new government mandates. Montana's electric co-ops are already leaders in reducing greenhouse gas emissions and in using clean energy sources. I do not believe additional government mandates are needed and would be harmful to our beautiful state of Montana. Please say no to these unnecessary mandates.

Thank you,
Bobbie Bink
Sun River, MT

From: [REDACTED]
To: [Climate Council](#)
Subject: [EXTERNAL] climate change proposals
Date: Monday, March 30, 2020 3:01:36 PM

Montana Climate Solutions Council,

Thank you for your work on the council. I believe that private enterprise is what makes our state the best there is. Imposing government mandates on our electric co-ops are harmful to Montana. Our electric cooperatives are already doing a great job of reducing greenhouse gas emissions & using clean energy sources. No to more government mandates!

Pete Bink
Sun River, MT

From: Tivan Bovington [REDACTED]
Sent: Monday, March 30, 2020 1:59 PM
To: McGrath, Shaun [REDACTED]
Subject: [EXTERNAL] FW: Comment Period Extended on Climate Solutions Plan

Shaun,

Here are some comments on the MT Climate Solutions Plan

In a way this Virus (Crisis) is a blessing in that it will force action and investment.

Much like the 'Marshall Plan' after WW2

See my comments below.

New Capital in Infrastructure must only go one way and it is not Old Fossil Fuel Infrastructure.

It is new Sustainable Infra

\$2.2 Trillion Bill is only the beginning we will do more as the USA and the World. \$5T \$10T \$20 Trillion and so on.

Which is what Sacagewea is ready to do in Alignment with The State of Montana.

Tivan Bovington, CFA

CEO / Principal / Founder
Sacagewea L&C LLC

[REDACTED]
[REDACTED].com

From: Tivan Bovington
Sent: Monday, March 30, 2020 12:27 PM
To: [REDACTED]

Subject: RE: Comment Period Extended on Climate Solutions Plan

Thank you for keeping me updated on this Shaun.

One thing is for sure we need to change and do more than was originally thought.

The opportunity to go Net Zero represents job growth and economic growth.

It costs more to stay 'Stranded' with Coal

I costs more to switch to 'Gas'

The opportunity is in Renewables.

Will all that has happened in regards to the Virus and Markets etc. this becomes more evident.

Some may believe that it is better to stay the same, or two only take moderate measures, but that couldn't be farther from the truth.

Need to be strong and Bold and Embrace the New Economy. Embrace the Transition Economy.

Stop going the wrong way (Fossil Fuels) time to change and create massive Economic Prosperity through Clean Energy

Wind, Solar, Storage

No Coal

No Gas

No 'Stranded Asset' investing no more Corporate Welfare for big Coal, Gas, and Oil.

That is the point I would like to make and happy to prove in Numbers.

Truth is on our side

Can't say much about how Truth will support Fossil Fuels.

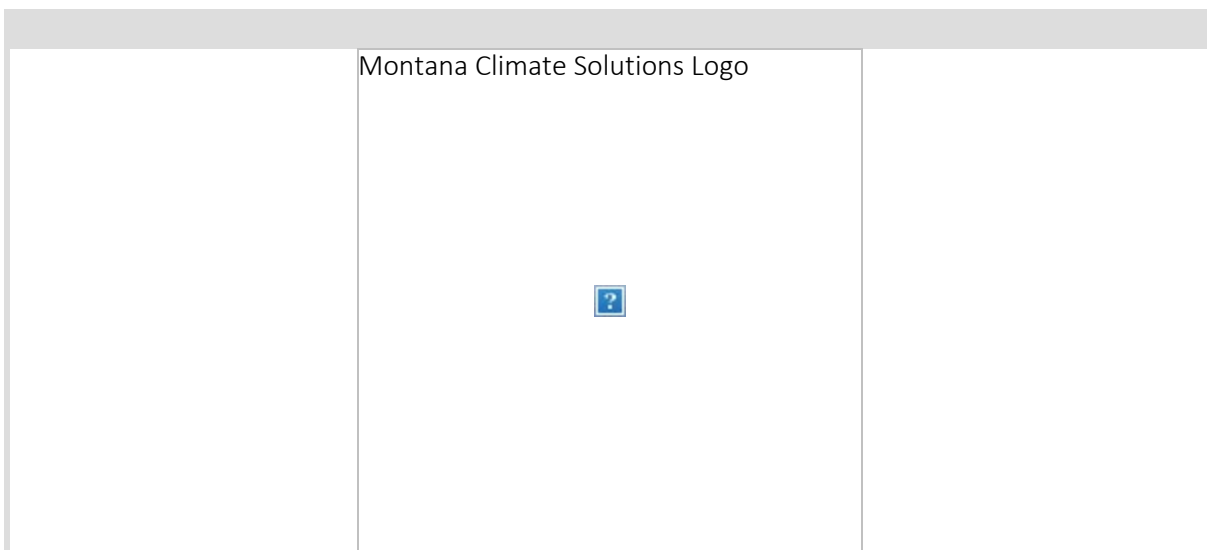
Feel free to call me and discuss or send emails.

Tivan Bovington, CFA

CEO / Principal / Founder
Sacagwea L&C LLC

[REDACTED]
[REDACTED]

From: Shaun McGrath, DEQ Director [REDACTED]
Sent: Monday, March 30, 2020 12:16 PM
To: Tivan Bovington [REDACTED]
Subject: Comment Period Extended on Climate Solutions Plan



Comment period extended through April 24

Dear Partners and Interested Parties,

In response to the evolving COVID-19 public health situation, we have decided to extend the deadline for submitting comments on the draft Montana Climate Solutions Plan. We have already received many insightful comments and want to ensure everyone who wishes to comment is able to do so. **We have extended the deadline to submit comments through April 24, 2020.**

The draft document is available at the following link: [https://deq.mt.gov/Climate \[lnks.gd\]](https://deq.mt.gov/Climate[lnks.gd]).

Comments may be submitted by email to ClimateCouncil@mt.gov. All comments received will be made available for public review.

Thank you for your interest in Montana Climate Solutions.

Update your subscriptions, modify your password or email address, or stop subscriptions at any time on your [Subscriber Preferences Page \[lnks.gd\]](#). You will need to use your email address to log in. If you have questions or problems with the subscription service, please visit [subscriberhelp.govdelivery.com \[lnks.gd\]](#).

This service is provided to you at no charge by [Montana Department of Environmental Quality \[lnks.gd\]](#).

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From: [Bugingo, Collins](#)
To: [Climate Council](#)
Subject: [EXTERNAL] Climate change document submission
Date: Monday, March 30, 2020 8:51:59 PM
Attachments: [MONTANA CLIMATE SOLUTIONS PLAN.CBdocx.docx](#)

Greetings

Hope this document can be attended to. I apologize for the late submission

Collins

Collins Bugingo

Research Assistant (Graduate)

Plant Science Plant Pathology

Montana State University



RESPONSE TO MONTANA CLIMATE SOLUTIONS PLAN
Preliminary Recommendations and Key Questions
For Partner and Public Comment

Input by Collins Bugingo

Plant Science Plant Pathology

Montana State University, 59717 Bozeman

Appreciate you putting up this document. Having this in mind that some people have labeled climate change activists as hysterical with strong refutations of the available data regarding this phenomena, I will be commenting based on contents I felt were not clear or missed a few details hoping this can make the document better and cast a better scientific picture as to why everyone has to be concerned- I always remind my friends who make this a political debate that we can't refute climate change and think we are being good stewards of what God has entrusted us with. To start, the introduction for a bigger part missed citations. Most of the statistics provided were not referenced at all. It would create overall public trust if the figures were backed with references- Those that have conducted significant research and have preferably been peer reviewed. The language has to also be toned down a little to benefit the masses without the climate and environmental terminologies. That said we might need to include a glossary at the end of the document or a link to the terminologies so that people can fully comprehend what this plan is about- I have worked in extension for some time to appreciate how boring these words can be if the message is not well packaged.

1D: ADAPT MONTANA'S BUILT ENVIRONMENT TO CLIMATE CHANGE

Whereas these points were well laid out, I thought incorporating the strategy of tree planting programs for schools and other institutions around the state. Young Montanans will be groomed and be a part of the process towards mitigation of the climate crises by taking out CO₂ from the atmosphere. Making environmental conservation a responsibility of Montanans at an early age will build a sense of ownership.

1F: BUILD THE RESILIENCE OF MONTANA'S PRIVATE WORKING LANDSCAPES (FARMS, RANGELANDS AND FORESTS) AND SUPPORT VOLUNTARY AND INCENTIVE-DRIVEN EFFORTS FOR CLIMATE SMART MANAGEMENT THAT REDUCES RISKS, IMPROVES BOTTOM LINES, AND ENHANCES CARBON STORAGE IN SOILS, FORESTS AND WOOD PRODUCTS.

This could be expanded by encouraging farmers to grow crops like pulses and legumes which do not require lots of external inputs like Nitrogen will be recognized. Research has shown these to play a part in [climate modification](#) as per this report from the Food Agriculture Organization (FAO). It is imperative to explore this on different farms around the state and back it up with local data. Providing incentives and subsidies will motivate new growers to venture into these crops which the USDA has termed as specialty crops. Montana state university and other universities in the state have conducted numerous studies on pulses and they are well suited for our semi-arid environment. However, in my observation, also backed by USDA acreage data, most of these are grown in the Central and Northern parts of the state. The Dept of Agriculture and extension services will have to encourage growers in other parts of the state to not only take advantage of the available market for pulses but also factor in that they have proved to improve soil fertility and consequently the offering the grower Nitrogen credit (they have proved to fix well over 120kg of N per hectare through biological Nitrogen fixation).

In other aspects, I did not see a lot of details dedicated to anthropogenic methane and the role played by livestock in the GHG complex. Methane is responsible for more than one fifth GHG which makes me wonder what measures Montana have in place to combat the effects? For the methane from livestock, In my opinion, something has to be done on the diet where people should be willing to diversify protein sources(I know this might meet a lot of resistance but sensitization and proving that the available options are able to serve the same nutritional purpose while cutting on GHG will be helpful). A lot of sensitization is required since people so dearly hold on to their animal protein sources yet these have proved to [be the number one sources of GHG](#). In addition to that, feeding has proved to affect GHG in livestock- what has the USDA, EPA and other stakeholders to evaluate the quality of feeding to these animals- here is a study that reports [feed efficiency as a key driver of productivity, resource use, and greenhouse gas emission intensities, with vast differences between production systems and animal products](#).

This is a great step towards combating the climate change crisis, but I still emphasize that this is not politicized. It is something that requires nonpartisan coalition and our people have to be sensitized using sufficient data- this should not be a Blackbox that is left to only the scientists, elite or a certain class of people. Science has its role to play but more so the civil society, a reason I am grateful to Senate Bullock for taking on this challenge.

From: [Susan Clarion](#)
To: [Climate Council](#)
Subject: [EXTERNAL] Comments on draft Montana Climate Solutions Plan
Date: Monday, March 30, 2020 3:51:06 PM

Council Members,

Thank you for your efforts in producing the draft Montana Climate Solutions plan. In addition to the specific comments below, please make it a priority that implementation begin immediately for those measures which can begin right away and that will help reduce greenhouse gas emissions.

-- Please support efforts to expand Montana's ability to understand climate risks and prepare for change. In particular, recommendations 1A through 1H should be funded and acted upon.

-- Montana needs more accessible climate science. Please support a larger Montana Climate Office with more staff, stronger Montana University System climate coordination, research and funding, and increased support from the state to communities so they can develop greenhouse gas reduction and climate adaptation strategies.

-- Recommendations 2A through 2E and 2G through 2K are essential for Montana to reduce greenhouse gas emissions and avoid locking into new fossil fuel infrastructure. Montana is deficient in programs and funding to support energy efficiency and conservation and the key strategies identified, if enacted swiftly and with financial support, are essential. They will save Montanans money while improving public health.

-- A statewide energy efficiency standard would save all Montanans money.

-- Raising the size cap on distributed generation solar systems (aka rooftop solar) would benefit schools, libraries, and other public buildings in their community - saving taxpayer dollars and creating educational opportunities for our youth.

-- Support adoption of low emission vehicle standards and actions that will incentivize/promote/enhance electric vehicles.

-- Please encourage and support community goal setting, energy data collection across sectors, and planning efforts to reduce emissions and save money in local communities.

-- Voluntary controls on oil and gas development are inappropriate. The industry has had decades to voluntarily curb greenhouse gas emissions and has failed to do so. Methane emissions from oil and gas development are easily controlled and should be required. The time has past for voluntary commitments from this greenhouse gas producing sector.

-- Carbon capture and sequestration is not an appropriate climate solution for coal-fired electricity. This unproven technology only makes dirty, expensive coal plants even more expensive and risky. The final recommendations should focus on reducing reliance on coal-fired electricity instead of relying on misguided, expensive, risky, and unproven technology.

Thank you,

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Susan Clarion


115 University Avenue
Missoula, MT

From: [John Cobb & Cheryl Lux & Cobb Charolais](#)
To: [Climate Council](#)
Subject: [EXTERNAL] recommendation
Date: Monday, March 30, 2020 10:07:31 PM

1B climate advisory council

- a. May wish to have them also address asking funding for the university system for research geared to Montana agriculture . A large amount of grant money comes from private enterprises outside of Montana to have the University do research for their products. We should have more money set aside for basic research and applied research that may lead to economic benefits and climate benefits for Montana. That is for example we do research for grain or pesticide research that is turned around and charged to producers who use the product. We need more free use of the research.
- b. For example more genetically modified grasses or crops that used or created their own nitrogen fixation.



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From: [John Cobb & Cheryl Lux & Cobb Charolais](#)
To: [Climate Council](#)
Subject: [EXTERNAL] recommendation for draft plan
Date: Monday, March 30, 2020 10:10:36 PM

Throughout the Plan you talk about communities . What does that mean when it comes to rural Montana? Is a community meant to be more large urban areas telling rural Montana what to do in this Plan?

From John cobb, Augusta, Montana



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From: [John Cobb & Cheryl Lux & Cobb Charolais](#)
To: [Climate Council](#)
Subject: [EXTERNAL] recommendation to Plan
Date: Monday, March 30, 2020 10:14:56 PM

1E Tourism- If we go to more electric vehicles- will that lead to a decrease in out of state tourism due to the time needed to charge batteries in electric vehicles? If it takes for example twice as long to get to Montana from California using electric vehicles due to the time charging the batteries will there be less people coming to Montana for tourism, recreation, hunting, fishing etc? Are there studies showing what happens to recreation, tourism in an area once one decreases fossil energy vehicles in favor of electric vehicles?

From John Cobb Augusta, Montana



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From: [John Cobb & Cheryl Lux & Cobb Charolais](#)
To: [Climate Council](#)
Subject: [EXTERNAL] recommendation to Plan
Date: Monday, March 30, 2020 10:20:35 PM

Caron credits- you may wish to address explaining more to rural areas about carbon credits and the process that it entails. There are going to be scams as usual trying to rip people off, and having an understanding of how carbon credits work and where and who one can get information from as well as if scams are going on in Montana and what the sams usually entail would be helpful to rural Montana.

John Cobb Augusta, Montana



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From: [John Cobb & Cheryl Lux & Cobb Charolais](#)
To: [Climate Council](#)
Subject: [EXTERNAL] recommendation
Date: Monday, March 30, 2020 10:39:37 PM

Wildfires:

1. Even though there is climate warming that affects forests, there is also not letting fires burn freely for over a hundred years that has contributed to dangerous fires. I think you have to be careful to blame all fires on climate warming.
2. On urban/wildland interface- even though at some point local and state and federal agencies try to stop fires from homes at some point they need to say if you build or have built in certain locations, we are not going to protect you homes from fires that come from forest fires. It is clear where I live that once a fire gets to big, there is not going to be anyone from government to protect our buildings or homes or grass. The Forest Service has made it clear that they will not fight the fires once a major fire leaves the Federal Forest Lands and there is likely not going to be the state or local resources to put out the major fire. As long as you know that you can prepare and not be under the assumption government can save your home.
3. There is at least one private company that will insure damage to grass from fires to a certain amount per state. We need the ability for insurance for grass damage- loss of feed to animals. Our homes can be insured but damage to the grasses for feed for livestock is not insured except in this one case by one company and they limit the amount of damage they will pay for.
4. We have a state hail insurance policy in Montana and the Council may wish to explore whether we can have a state fire insurance policy at least for crops at this time and later for grasses.
5. The Forest Service has the ability to contract with adjacent landowners to their forests, to pay for damages such as grass damage, if they wish to. They never have though. For example, it would be a lot cheaper on large fires to simply have a long term contract that if a large fire gets out of their lands, that the Forest Service will pay for certain damages at an already set price and let the fire go. Instead of spending 20 million dollars for example on a fire, and there are only several ranches and homes outside the boundary of the forest, it would be perhaps better where owners agree ahead of time, to pay for the damages to fences, grass etc and cost a lot less.

From John Cobb, Augusta, Montana



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From: [John Cobb & Cheryl Lux & Cobb Charolais](#)
To: [Climate Council](#)
Subject: [EXTERNAL] john cobb- recommendation to plan
Date: Monday, March 30, 2020 10:52:00 PM

2. Strategies to reduce greenhouse gas emissions

The Council encourages the public to review the CETI study.

My general observation of the study is I do not think Montana should be a colony of the West Coast.

We should not be tied to what California or Oregon or Washington are doing on greenhouse reduction. I do not believe that there will be many large transmission lines built between California and Oregon and Washington as the Plan envisions.

The Plan also does not address the need for new technology to store large amounts of electricity for large areas or populations.

Simply having large amounts of wind power that does not work in high winds or parts of the year in many areas, to be greatly expanded in use if you build enough transmission lines across the West Coast to be also used in Montana is not going to work.

If we are suppose to reduce our carbon in Montana, are our incomes going to decrease? It is easy to make broad mandates- but can this Council say that our incomes for the average Montanan will not decrease in order to meet this Plan? If it is the plan to reduce the number of Montanans, rural Montana numbers and reduce our economy then say so.

From John Cobb, Augusta, Montana



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From: [John Cobb & Cheryl Lux & Cobb Charolais](#)
To: [Climate Council](#)
Subject: [EXTERNAL] recommendations for Plan
Date: Monday, March 30, 2020 11:17:38 PM

Energy savings.

Montana has a number of tax credits for energy efficiency. The Council may wish to explore do these credits work?

If the credits work, can they be improved. I know there have been several attempts by Legislatures to do away with the credits But the credits allow individual Montanans a chance to reduce energy use and be rewarded for it. In this Plan and most plans for energy reduction, the large industries get tax reductions or grants, or loans to do so, but the benefit usually will not go to the individual Montana. It goes to the industries, or companies or other entities.

You may wish to expand state tax credits, or no equipment tax or no tax on large batteries that store energy. California has a Self Generation Incentive Program.

Hemp use to be used for building. The building codes in Montana could be updated to use Hemp in buildings.

Your Plan seems to look at certain large industries for energy reductions or reductions in fossil fuel. I think you need to broaden the use of industry to include government both local and state.. Just because you have one state building here and another there, I think we forget that it also includes thousands of people and hundreds of buildings and a lot of energy use. If other Montanan industries are going to have to reduce their energy use by a certain percentage, then government should also.

You may wish to check how often stop lights need to be changed as to their timing of stop and go. Having vehicles simply stop and be in idle at stop lights because there has not been an updated traffic use pattern wastes fuel.

In your 2B graduated energy efficiency standard. You need to explain what you mean that the rate of energy savings in Montana is quite low. What does that mean and can you give examples?

From John Cobb



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From: [John Cobb & Cheryl Lux & Cobb Charolais](#)
To: [Climate Council](#)
Subject: [EXTERNAL] recommendation to Plan
Date: Monday, March 30, 2020 11:49:48 PM

As your Plan destroys the fossil fuel industry as well as perhaps other industries in Montana, do the job retraining programs that we have now work? What do you want these people whose jobs you will destroy do then? We can always say that a particular industry is bad and we must stop this climate warming to a point, but these are real people, families and communities and you need to say what you want them to do when their jobs and occupations are ended. Your Plan has these broad goals and about lets all get together and work on climate warming, but what are your specific plans for these people. I know some advocates do not care, but this Council should and make a statement on this issue. The University System and Technical schools must change what they train for, if these industries are no longer to be here.

I saw where there was discussion on have electric chargers for electric cars at the rest stops. You may wish to then start calling the rest stops the "Town Pump Rest Stops" because Town Pump and other companies, hotels, etc will begin to build around the rest stops. It takes awhile to charge the vehicles and people will want something to do. I think it would be better not to build the chargers at the rest stops and simply allow the local communities, and businesses to build and operate their own chargers. Not charging equipment tax or other taxes on the charging stations would be a start.

John Cobb Augusta, Montana



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[avg.com]

From: [John Cobb & Cheryl Lux & Cobb Charolais](#)
To: [Climate Council](#)
Subject: [EXTERNAL] recoomedation to Plan
Date: Monday, March 30, 2020 11:55:00 PM

Would you please have lists made on what individuals, businesses can do to save on electricity and fuel costs right now. There are hundreds of ideas and lists out on the internet right now and we need to get those lists out to people across Montana. This can be done now and on a continuous basis.

The problem is always going to be, that even if you turn off lights for example, a large part of the cost of your bill is a fixed cost to the utility and you do not receive as much benefit as you would or should.

John cobb Augusta, Montana



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From: [jill davies](#)
To: [Climate Council](#)
Subject: [EXTERNAL] Climate Council Plan
Date: Monday, March 30, 2020 11:48:32 AM

To add to my comments of yesterday (#4) about a hydrogen economy, see this new report:

A coalition of major oil & gas, power, automotive, fuel cell, and hydrogen companies have developed and released the full new report, a “[Road Map to a US Hydrogen Economy. \[fchea.org\]](#)” The Road Map stresses the versatility of hydrogen as an enabler of the renewable energy system; an energy vector that can be transported and stored; and a fuel for the transportation sector, heating of buildings and providing heat and feedstock to industry. It can reduce both carbon and local emissions, increase energy security and strengthen the economy, as well as support the deployment of renewable power generation such as wind, solar, nuclear and hydro.

March 29 comments...

Dear Climate Council -

Thank you for the opportunity to comment on your proposal. I am a farmer and I have solar panels and am on the grid with NW Energy so have been following NW Energy's attempts to discourage home solar systems via various rate increases and lobbying against good legislation proposals for better energy systems. I also have seen NW Energy's 20 year plan and am very concerned that they seem to be going in the wrong direction, i.e. buying into Colstrip, planning to build 3 new gas fired power plants, and having no new renewables in their plan. Apparently they cannot read the writing on the wall. We need to teach them to read. So I am helping to gather signatures for **I-187** to put it on the ballot in November. Sadly, the covid19 situation is curtailing our ability to gather signatures so maybe we won't succeed. Now maybe we can improve on your plan, so here are my comments.

1. Economic needs of current industry should not take precedence over sound science and economic predictions. We need to imagine new industries which help us to move away from fossil fuels and still provide jobs.
2. Implementing statewide building codes that require energy efficiency as recommended on p. 9 is a great idea. Please also encourage electricity conservation by implementing a structure that increases rates with increasing use.
3. Thank you for recommending an increase in the allowable size for solar generating systems. Solar electricity is good for everybody (except NW Energy apparently), and should be encouraged as much as possible. This is also a feature in **I-187**. **I-187** will also require utilities to achieve 80% renewables by 2034, allow aggregate net metering, and allow creation of neighborhood renewable energy facilities without restrictive net metering caps among other great features.
4. The Council's goal to achieve *net greenhouse gas neutrality* is essential, but your recommendations do not reflect this goal. What about promoting rooftop solar by offering stronger tax incentives and improve the current net metering program as in **I-187**.

A new economy is coming and the writing on the wall says - *hydrogen!* The council

should eliminate coal-fired electricity generation in Montana, not allow new gas-fired generation, provide job training, and support green energy solutions to diversify changing local economies. We will need fuel cells and electrolyzers to split the water molecule and collect hydrogen as well as hydrogen gas infrastructure. Companies all over the globe are gearing up to produce these, as well as vehicles which will run on hydrogen. For example see: <https://www.hydrogeneconomy.org/>. [[hydrogeneconomy.org](https://www.hydrogeneconomy.org/)] Europe is way ahead of the U.S., as usual.

Unfortunately, it appears that your plan emphasizes maintaining and increasing natural resource extraction (agriculture, logging, and mining) rather than helping the economy adapt to changing demands and climate change. We can do better than this.

5. Please remove any consideration of biofuels which have been shown to emit more carbon than coal when the entire production and transportation process involved is considered.
6. Remove or decrease subsidies for resource extraction to bolster the cleaner economies that are developing.
7. Agriculture is a major contributor to greenhouse gasses. Find ways to encourage **Regenerative Agriculture** rather than Industrial Agriculture. We need to learn how to grow food using less fertilizer and fossil fuels while improving soil health and carbon capture capacity. See: <https://regenerationinternational.org/> [regenerationinternational.org].

That's it for now, and for a greener future in Montana.

Sincerely Jill Davies

Jill Davies - Director
Sustainable Living Systems
[REDACTED]

We make war with our brethren
and our environment
because we do not know our place
in the cosmos.

"We are here to awaken from the illusion of separateness."

--Thich Nhat Hanh



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[[avast.com](http://www.avast.com)]

From: [Thomas DeLuca](#)
To: [Climate Council](#)
Subject: [EXTERNAL] Comments
Date: Monday, March 30, 2020 4:48:41 PM

As a whole this document has been nicely organized and provides the state with an excellent starting point for taking action on both mitigation and adaptation strategies. The document is broken down into planning for climate change and then strategies for reducing greenhouse gas emissions. The preparation portion is quite comprehensive in terms of hitting key topical areas, but is shallow in terms of getting down to details on how to prepare for these impacts. I also think that the document should front load the whole discussion with a greater emphasis on the need to immediately and rapidly ramping down fossil fuel dependence and increasing alternative energy adoption. This should be taken as a first step in having Montana take the lead in climate mitigation and adaptation.

I was a little disappointed with narrow focus of the section on reducing carbon emissions and increasing carbon sequestration and specifically Section IV: Industrial, Oil and Gas, Agriculture and Forestry. While the section rightfully addressed issues associated with fossil fuel energy, it did not even consider emissions associated with agriculture and forestry and practices to mitigate those impacts. In earlier sections of the plan there is ample attention given to increasing resilience and carbon storage through alternative agricultural practices and similarly there is some attention given to this with regard to forest management. However, this section completely ignores the role of agricultural and forest ecosystems in terms of storing carbon.

Current conventional agricultural practices are highly leaky when it comes to carbon and nitrogen cycling. While some improvements are being made state wide. Conventional tillage and crop fallow agriculture results in extensive carbon emissions. Fertilizer applications associated with grain production remains high in the state and yields high rates of N₂O emissions which are 300 times more potent a greenhouse gas than CO₂. Yet there is no discussion of fertilizer, energy consumption in fertilizer production (emissions associated with that production) or emissions associated with N fertilizer applications. If we assume (back of the envelope here) that spring and winter wheat average around 40 bu per acre and receives 2.6 lbs of N per bushel, and we plant over 5 million acres of wheat annually, that equates to about 520 million pounds of N. Given a conservative estimate of 1% of the applied N being lost as N₂O, then we can expect 2,600 tons of N₂O emitted annually from fertilizer N (780,000 tons CO₂e). And, if we consider that about 1.3×10^{13} BTU of energy as natural gas or about 325,000 tons of natural gas are used to create the fertilizer., then we have a total of well over 1 million tons of CO₂ e just from fertilizer N applications to wheat production in Montana. These numbers may not be perfect, but this is just for wheat, throw in barley, oats, potatoes and it all adds up to a pretty stunning number that is not being considered here. Alternative approaches that reduce synthetic N use and reduce N₂O emissions should be discussed in this context.

Forest management that is aimed at reducing the occurrence of high severity fire and yields durable wood products represents another approach to reducing C emissions on a landscape scale. Decades of fire suppression combined with past management practices has put a significant amount of forest land at risk of unnaturally high severity fire. Thoughtful management can shift fire severity and behavior as to reduce C emissions over time. Here the climate plan could link to the forest action plan to incorporate these concepts by reference.

The authors missed an opportunity in this section to address natural carbon storage (rather than engineered carbon capture proposals) that could be achieved through pursuing more sustainable agricultural and forest management practices. Some of this is partly captured in a single case study presented later in the plan on climate smart agriculture, but it is too little and too late and fails to address forestry. We often point to the innovators in agricultural when sharing what can be done, but we also need to stop and look at the lagging adoption on a statewide basis to ask why there hasn't been a better job done by the State to promote these practices.

Thanks for considering these comments. Keep up the good work!

Tom DeLuca

Missoula

From: [Dena Hooker](#)
To: [Climate Council](#)
Subject: [EXTERNAL] Comments
Date: Monday, March 30, 2020 3:43:19 PM

To the Climate Council,

I would really like to see the state of Montana invest more towards technology to do carbon capture and not putting the coal industry out of business. There are Electric cooperatives across the U.S that are investing in carbon capture, coal is a sustainable reliable energy source. Most important, is the reliability of coal, with more electricity demands we need dependable energy sources. More mandates just tie the hands of Montana's Electric Cooperatives and those mandates have the potential of driving up the costs of our electricity, to those Montana's that can't afford higher electric bills.

Many of the state's cooperatives have already made strides to reduce the carbon footprint by building community solar projects. Mandates are unnecessary if a utility is already steadily and effectively undertaking decarbonized actions. Please consider the costs of any new updates to the renewable portfolio would have on the people of our state, the small electric cooperatives and the impacts of reduction of coal to those who depend on the jobs in the coal industry.

Thank you for your continued work with the cooperatives' representative on the council.
Dena Hooker
Ovando MT

Sent from my iPad

From: [REDACTED]
To: [Climate Council](#)
Subject: [EXTERNAL] Comments on the Montana Climate Solutions plan
Date: Monday, March 30, 2020 10:10:49 PM

Dear Council Members,

Thank you for the draft Montana Climate Solutions plan and for the opportunity to comment. While I have some specific suggestions for improvements below, I urge you to begin immediate implementation of measures to reduce carbon emissions.

Recommendations 1A through 1H should be funded and implemented. Adequate support for climate science is essential to our ability to understand risks and prepare for change. We need a better funded Montana Climate Office and increased state support to communities working to reduce carbon emissions and plan for climate adaptation.

Recommendations 2A through 2E and 2G through 2K are essential for Montana to reduce carbon emissions. Montana needs to support energy efficiency and conservation to save Montanans money, protect public health, and protect agriculture and recreation industry from the worst effects of climate change. Also critical are expanded shared solar, incentives to develop utility scale storage development, and incentives for solar ready & solar integrated design & building codes. A statewide energy efficiency standard is a key step in increasing energy efficiency.

Recommendation 2Q would increase allowable systems size for distributed generation systems – I suggest raising the cap up to 100 kW for residences and up to 250 kW for institutional installations. This would benefit schools, libraries, and other public buildings – saving taxpayer dollars and creating educational opportunities.

Voluntary controls on oil and gas development do not work. The industry has had decades to curb carbon emissions voluntarily and has failed to do so. Methane emissions from oil and gas development can be controlled and should be required.

Carbon capture and sequestration are unproven technologies and are not an appropriate way to address carbon emissions of coal-fired electricity. Instead, we should focus on reducing reliance on coal-fired electricity.

Please support adoption of low emission vehicle standards and actions to incentivize electric vehicles.

Please encourage and support local communities that choose to set strong carbon emission reduction goals.

In addition, Montana's renewable energy standard should be raised to 80% by 2035. This is achievable and will create jobs and save money.

There is a need to replace the coal severance tax as coal sales drop -- a tax on electricity could replace the coal severance tax, and also fund worker retraining programs and pension security for fossil fuel workers. Please consider adding the above ideas to the Solutions plan.

I join Ms Watson in her excellent comments and suggestions.

Please, please take them to heart - and take a stand in saving our "Last Best Place" and our Last Best Planet.

Janet Lyon



Missoula, MT 59807

From: [REDACTED]
To: [Climate Council](#)
Subject: [EXTERNAL] Comment on Plan
Date: Monday, March 30, 2020 11:23:21 AM
Attachments: [Matson comment 033020docx.docx](#)

Please find attached my comment on the Montana Climate Solutions Plan. Please let me know if this form of comment is not acceptable. Otherwise, I'll assume it's OK.

Thanks!

Gary Matson

[REDACTED]

Milltown MT 59851

[REDACTED]

Gary Matson



Milltown MT 59851

March 30, 2020

Gary Matson public comment, Montana Climate Solutions Plan

I appreciate the work of the Montana Climate Solutions Council in producing a comprehensive assessment of our state's climate issues and strategies to deal with climate change. As a whole, *I strongly support the elements given in the Plan*. Following are my comments with suggestions.

SECTION 1. Preparing Montanans for Climate Impacts

1A: Growing and sustaining climate science

"Expand staffing and capacity of the Montana Climate Office..." After having read through the Plan I'm struck by the profound need to centralize and coordinate efforts to deal with the climate crisis. The Montana Climate Office (MTO): "...provides Montanans with high-quality, timely, relevant, and scientifically based climate information and services. ...assimilating, organizing, and disseminating climate information across providers for the benefit of a large and diverse stakeholder community in Montana. ... the official steward of climate information for Montana..."

I think it is important to note that there is need for an office with broader jurisdictional authority than the MTO in order to provide strong, centralized guidance and coordination among state agencies, local governments, and NGOs. I think that there is a strong need for a new state agency with oversight for all aspects of climate impacts. For example, the Montana Climate Office at UM could operate within a state level "Department of Climate." The MTO would be the primary authority for organizing and disseminating information and for coordinating climate research within the state. The state level Department of Climate would, among other things:

- Implement the elements described in the Montana Climate Solutions Plan
- Establish goals for aggressively dealing with the climate crisis (e.g. lowering CO2 emissions from electricity generation and transportation)
- Work in the legislature and governor to adopt these goals
- Fund information services by the MTO
- Prioritize and fund research by Montana climate scientists
- Coordinate adaptation and mitigation measures by state agencies (e.g. DEQ, MDT)
- Collaborate and coordinate with local governments and NGO's to unify and strengthen the statewide response to climate change adaptation and mitigation

1G: Support climate resilient forests, rangelands, and wildlife

It is important to add a consideration of the ecological consequences of habitat change and effects upon wildlife. There may be effective adaptive measures that could be taken to minimize losses of wildlife species and populations.

Section 1 questions to guide public feedback

Value in developing estimates of costs and benefits of climate preparedness and impacts? My answer is yes. Costs are of two kinds: 1) Quality of life costs e.g. loss of recreational resources; 2) Economic costs e.g. loss of agricultural productivity.

SECTION 2. Strategies to reduce greenhouse gas emissions

Page 9. "...achieve an interim goal of net greenhouse gas neutrality for average electric loads in the state by no later than 2035 and a goal of net greenhouse gas neutrality economy-wide at a date to be determined by the Council."

This goal setting is of key importance. I suggest changing the date of neutrality for average electric loads from 2035 to 2030. I believe this would be possible with the full cooperation of the legislature, PSC, and NorthWestern Energy.

I propose a date of 2040 for economy-wide greenhouse neutrality. The means exist for this to occur in our industrial and transportation industries (except for maybe aviation). The change can occur with appropriate incentives and regulation.

I suggest taking these goals to the 2021 legislature for adoption. Our current political climate may or may not accept the goals but it is important to begin bringing them forward.

2H: Encourage expanded solar development

The Plan does not note that NorthWestern does not permit community solar development. It is critical that this be remedied, through actions by the legislature, PSC, and NorthWestern. Community solar can enable a broader residential use of solar energy because some among a group of residents lack solar panel siting potential that might be available to the group as a whole.

2L: Low and zero emission vehicles

It is critical to lower the emissions from the transportation sector, a major source. Given the current makeup of vehicles, including Montanans' beloved pickup trucks, SUVs, and the very large numbers of semi trucks hauling important freight, this part of the climate fix will be among the most challenging. Anything that can be done to speed development of passenger and freight fleet electrification has the potential to make a major difference.

2P: Carbon capture storage

Considerations of carbon capture and storage should be abandoned because no fossil fuel electricity generation is compatible with the existence of a “clean and healthful environment.”

Coal mining permanently destroys the priceless, irreplaceable shallow soils that have developed over thousands of years. Waste products of coal-fired generation both in stack emissions and solid waste streams create unacceptable costs and consequences.

Natural gas-fired generation increasingly depends upon the yields of fracking, which has both known and undefined levels of environmental degradation. Fracking should be phased out as a means of energy supply from fossil fuels.

2Q: Increase the allowable system size for distributed generation systems

Allowing system size to be a barrier for distributed generation like solar is counter to the goals of the Montana Climate Solutions Plan. Distributed solar systems in particular represent a great potential for increasing renewable electricity generation.

Barriers to increasing system size are claimed by NorthWestern but the utility must allow the increase as part of its plan to increase electricity generation. NorthWestern must invest in the resources required to allow the increase in the size of distributed systems. It has the means to do so and still retain its commitment to providing the most dependable power at the lowest cost.

2R: Increase and update the state renewable energy portfolio standard (RPS)

Because of NorthWestern’s large hydropower resource portfolio, the utility does not appear to be constrained by the standard. Apparently, the building of 800 MW of natural gas-fired generation proposed in NorthWestern’s 2029 electricity procurement plan would not be in violation of the 15% renewable standard.

The current RPS provides no incentive to address greenhouse gas emissions and should be updated and increased.

Answering “questions to guide public feedback”

- Collaborating with state agencies, state universities, local governments, and NGOs to advance all matters relating to the climate crisis – I think that a new state agency, the “Department of Climate” and the Montana Climate Office (as an office within the Department) could direct our state’s efforts (see my input on Page 1).

- The state should establish a goal of 100% renewable electricity generation by the year 2040 (or other reasonably proximate date) and require compliance by all utilities operating in the state.
- The PSC must, through all of its review and permitting processes, comply with a state goal of 100% renewable electricity generation.
- Rural Electric Coops already do a much better job than NorthWestern in facilitating renewable electricity generation. Additional incentives should be created to encourage NorthWestern to more broadly utilize renewable energy. Major electricity supply is available from “new” renewable resources through purchase agreements with both in-state and out-of-state sources.
- Price on carbon / cap and trade – It appears that renewable electricity generation is already available at a lower cost than fossil-fuel generation. This generalization may include only coal and not natural gas. The tools of a carbon tax or cap and trade should be utilized as appropriate to push NorthWestern in the direction of renewables in spite of the utility’s reliance upon “old-fashioned, tried and true” models for electricity generation. It will be difficult to shift NorthWestern’s internal institutional momentum that now heavily favors a reliance upon fossil fuels. Carbon tax or cap and trade should be evaluated and employed as needed to get NorthWestern pointed in the “right” direction. From my experience, the utility has partnered with the Montana Public Service Commission (PSC) to follow its preferred paths for electricity generation. We’ll see how this comes out with the PSC review of NorthWestern’s 2019 electricity procurement plan.
- Montana leadership in reducing greenhouse gas emissions – A first step will be to establish a statewide goal to become 100% carbon neutral by 2040 (or another reasonably proximate date) for both electricity generation and transportation. I believe that the most difficult first step will be to enable agreement that climate change is a crisis that can be met only by an all-out effort to change our energy consumption habits.
- Montana leadership in reducing greenhouse gas emissions – Cryptocurrency operations that are currently mining in Butte and Bonner consume more than half of all the electrical energy NorthWestern would supply in the first new natural gas-fired generator proposed in its electricity resource procurement plan. This electricity demand is more than that of the entire city of Missoula. As is now required in Missoula County’s current interim zoning regulation for cryptocurrency expansion, the State of Montana must require that all cryptocurrency mines whether existing, expanding, or new must supply their own electrical energy from new renewable generation.
- New technologies – Nuclear energy is broadly ignored in NorthWestern’s planning and in public discussions of energy supply. Reasons are understandable. However, full utilization of solar and wind have large impacts upon land use and materials that do not

accompany nuclear energy. A high capacity nuclear plant can be built near transmission lines, eliminating transmission issues that occur with solar and wind. There are more than 50 nuclear plants safely operating within the U.S. today. A developing technology is the “Small Modular Reactor” which can be built with better efficiency and at lower cost. A pilot project is underway as a collaboration between Utah utilities and the U.S. Department of Energy.

<https://www.energy.gov/ne/articles/nations-first-small-modular-reactor-plant-power-nuclear-research-idaho-national> Quoting from the web site:

“Renewables such as wind and solar produce intermittent power, and conventional power plants operate best and are more profitable when they operate at full capacity. When plants are forced to operate at less than full capacity, power generation becomes less cost-effective for customers and utilities.

Next-generation nuclear plants will provide operators with the flexibility to adjust power outputs to match demand, to make crucial decisions about electricity generation and allocation of steam, to repel cybersecurity threats, and to maintain reliable power during natural and man-made disasters.

To create this next generation of nuclear power plants, the U.S. Department of Energy is working with Utah Associated Municipal Power Systems (UAMPS) and NuScale Power to develop the Joint Use Modular Plant (JUMP).”

Montana climate solutions planning should include staying apprised of progress at the JUMP and evaluate the potential for electricity generation in Montana. The tradeoff could be thousands of acres of Montana land, thousands of tons of materials, and hundreds of miles of transmission in exchange for a small footprint and a small (though lethal) amount of waste.

- New technologies – Geothermal energy is entirely ignored in NorthWestern’s Electricity Resource Procurement Plan. The potential of this energy resource in Montana must be fully understood as we transition away from fossil fuels. In 2005, the Montana Geothermal Program was established:
<http://deq.mt.gov/Energy/renewableenergy/Geothermal> quoting from the web site: “The Montana Geothermal Program was established by Sage Resources of Missoula, the U.S. Department of Energy (DOE), and the State of Montana in May, 2005. The goal of this program is to identify and update geothermal information for Montana. This website provides the access to regional, site-specific and general geothermal energy information applicable to site development in Montana.”

- Balance between regulation and incentive – The determining factors in each case should be the measure that will bring about the most effective change the most quickly with least cost and least impact upon generators and consumers at all levels.

SECTION 3. Innovation opportunities

I believe that a state Department of Climate could serve to centralize information about all climate-related efforts in Montana. It could include staff to support and help coordinate the Climate Solutions Council, state agencies, the legislature, the Montana Science and Technology Committee, the Climate Solutions and Community Transitions Committee, the Montana Ready Communities Initiative, the Montana Chamber of Commerce Montana Resiliency Framework, MSU Extension's Climate Smart Montana, and related entities. It will be a challenge to enable the efforts of all the relevant entities to be robust, synergistic and efficient instead of fragmented and inefficient.

Answering “questions to guide public feedback”

- Among the industries that would benefit from research, development, and commercialization I would prioritize: a) Applications of small modular nuclear reactors for electricity generation; b) Storage of renewable energy; c) Machines and methods for agricultural carbon sequestration.
- Assessing University capacity to deliver climate-related research – First, prioritize research needs then invite proposals from our universities. Innovation being the key, traditional means of solving climate-related problems would be “uninvited.”
- Engage industry partners? First, identify those industries most likely to offer climate solution contributions, for example the forestry industry. Second, offer support through grants, technical assistance, and evidence of a potential lasting benefit to the participating industry.
- The right organizational structure? I believe the best structure is a state Department of the Climate with broad responsibilities including essentially everything related to climate change.
- Workers in transition – There is a critical shortage of construction workers; this is one area to offer training for workers who enjoy “working with their hands.” There should be an increasing demand for contractors to make older buildings more energy efficient. A state Department of Climate could develop a knowledge base about new job opportunities in climate adaptation and mitigation and work with the Montana Office of Public Instruction to develop training curricula, sources of instruction and, when appropriate, certification.
- Fiscal risks may face the state through, for example, the loss of gas taxes in the case of a switch to electric vehicles. Solutions may require more common sense than innovation. It would be appropriate for the Montana Climate Council and its successors to evaluate

the sectors most involved in solving climate issues, determine the likely fiscal costs to the state, and identify means of making up lost revenues if they in fact are likely to occur. These could include (shudder) sales tax.

Gary Matson

March 30, 2020

From: [REDACTED]
To: [Climate Council](#)
Subject: [EXTERNAL] Electric Cooperatives
Date: Monday, March 30, 2020 7:03:19 PM

Montana electric cooperatives are proven leaders in reducing greenhouse-gas emissions, and in using clean energy sources. Therefore, I do not believe additional government mandates are needed.

Charlene Murphy



Emigrant MT 59027



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[\[avg.com\]](http://avg.com)

From: [REDACTED]
To: [Climate Council](#)
Subject: [EXTERNAL] electric cooperatives
Date: Monday, March 30, 2020 7:08:44 PM

Montana's electric cooperatives are proven leaders in reducing greenhouse-gas emissions, and in using clean energy sources. Therefore, I do not believe additional mandates are needed.

Timothy Murphy



Emigrant MT 59027



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[\[avg.com\]](http://avg.com)

From: [REDACTED]
To: [Climate Council](#)
Cc: [REDACTED]
Subject: [EXTERNAL] Public Comments on Proposed Greenhouse Gas Emissions by 2035-MCSC's Draft Report
Date: Monday, March 30, 2020 6:03:18 PM

My name is Joel Nelson. I live at [REDACTED] Kalispell, MT - 59901.

My comments below are in regards to the recently released MCSC's draft report for Governor Bullock on the possible and proposed scale back of greenhouse gas emissions by 2035.

I am a Montana citizen and a Montana electric cooperative member and customer of the Flathead Electric Cooperative in Kalispell and Libby, Montana. I have a residence in Kalispell, in Flathead County and a summer cabin near Libby in Lincoln County. So I have a vested and valid interest in this draft proposal report, to our Governor, by the MCSC council just like many of Montana's private and business electric customers statewide.

I would like to go on record of being against any proposals before this council that would impose any new government mandates on any Montana electric cooperatives. I feel these proposed mandates are not necessary and if enacted would only harm the Montana electric cooperative owners and the customers serve by Montana electric cooperatives.

Montana's electric cooperatives have been proven leaders in the innovation and have made changes to both their electrical facilities and their business models for reducing greenhouse gas emissions, by purchasing and using clean energy sourced power. Therefore, I do not support that any new government mandates are needed.

Thank you for the opportunity to make my comments on this very important draft report by the MCSC council and it's proposed recommendations to Governor Bullock.

Sincerely,

Joel Nelson

[REDACTED]

Kalispell, MT - 59901

cc.- File

From: [Kathryn Poelman](#)
To: [Climate Council](#)
Subject: [EXTERNAL] Montana climate Solutions Council
Date: Monday, March 30, 2020 3:58:14 PM

March 30, 2020 Montana Climate Solutions Council

Dear Council;

Reducing greenhouse gas emissions can be painful but in the hope of somewhat saving our climate from too much change too rapidly, we must act.

The results of the coronavirus has temporarily resulted in a great reduction to greenhouse gas emissions, but I'm sure we will be back to business as usual, a frantic rush when we get through this pandemic.

The biggest offender causing the most damage to our climate, I believe is aircrafts and air travel. although it uses a comparatively small amount of our total petroleum resources. An aircraft leaves the resulting greenhouse gas in the upper atmosphere. This is hardly repairable by our good earth, thus causes the most damage. A strong government could force us not to fly, but that would be very unpopular at all levels, except the poor of course. Any climate change always affects the poor the most. Reducing air travel would simply have to be our own choice. Each one of us.

Our government can only encourage us to employ other means of travel. Here are some suggestions to help us reduce greenhouse gas or preserve our non-renewable natural resources. Our City and State government could employ these steps.

1. Establish and enforce a state wide 55 MPH speed limit. Montana could lead the way in this.
2. Support and encourage increased bus and train travel across the State. For instance, add a southern Amtrak route across Montana.
3. Support and encourage more efficient and practical bus routes in Helena. It could be so simple as letting someone who wants to make a buck, drive their own car around on an assigned bus route. Unlike Taxi, drivers who can take you anywhere, these folks would stick to an assigned route and charge a set amount.
4. To encourage and support downtown businesses, the city could establish several charging stations in these areas. This would in turn encourage more use of electric vehicles.
5. Here are a couple of ideas that would help preserve our natural resources:
 - a. Develop and encourage the use of wood pellets and clean burning furnaces for this purpose. Many wood products are thrown away that could be made into pellets including newspaper, cardboard, building scraps (painted and non-painted), wooden buildings themselves, tree branches and forest service slash piles. All of this could be made into pellets to burn efficiently and clean.
 - b. Compress any and all plastic products into bales to be used in the future for fuel. Like the dump now uses oil to heat with, plastic will also burn. We cannot continue to waste our resources.
6. Encourage people to plant lots more trees.
7. And finally make full use of on line teaching and medicine as now we are doing. For example, Holy Mass is now available everyday online at: diocesehelena.org

Thank you for reading this. I hope it encourages more discussion and more action.
God Bless You.

Tony Poelman

[REDACTED]
Helena, MT 59601
[REDACTED]

From: [Jim Roach](#)
To: [Climate Council](#)
Subject: [EXTERNAL] Regarding Preliminary Plan
Date: Monday, March 30, 2020 7:01:55 PM

Dear Montana Climate Council, my name is Jim Roach and I have been a Montana resident since 1971. I appreciate that Governor Bullock has commissioned the formation of this council to explore ways to prepare Montana communities for the coming storm of environmental changes and challenges that will and are accompanying anthropogenic climatic shifts and to find ways that Montana can play a part in lessening those climate shifts through the drastic reduction and sequestration of carbon emissions. This is a great first step and will hopefully be rapidly followed by action on many of the council's recommendations. I would stress that the council approach this task from the standpoint that we are in the midst of an extreme planetary emergency that is totally unprecedented in human society. Extreme and rapidly implemented measures are called for. I will briefly give my own thoughts on some of the council's recommendations.

- I think recommendations 1E through 1H have to do with protecting the natural biosystems that are present in Montana's wild and working landscapes. A new and universal respect for the value of natural systems in both combating climate change and adapting to its effects needs to be fostered. In Montana we need to mitigate the accumulation of wildfire fuels while respecting the value of natural forest ecosystems. In a time of diminished snowpack, we need to foster the development of wetlands and reestablish keystone species like beavers in places where they have been eliminated. I believe this is discussed in the report. We should work with indigenous leaders who have traditional knowledge and relationships to the natural world. In these partners we can also find unique vantage points on the effects of climate and other environmental disruption.
- I agree with the notion of reorganizing the financial workings of our investor owned utilities, decoupling profits from increased energy production and sale, and really closely examining whether a corporation whose primary consideration involves stockholder financial returns can adequately address long term environmental issues and enable ratepayer innovations that negatively impact that financial bottom line.
- On a practical level, I definitely agree with the idea of incentivizing, perhaps eventually requiring, grid connected water heaters. I agree with the idea of replacing pre-1975 mobile homes with more efficient newer models using a funding mechanism that doesn't impact the residents of those homes. I agree with the idea of encouraging performance contracting to upgrade the energy efficiency of residential and commercial buildings. We should pass PACE legislation at the state level or push utilities to offer some kind of loan program to effect efficiency upgrades at minimal cost to the ratepayer.
- I agree with the concept of including solar readiness into building codes with the option of mitigation in those circumstances where solar readiness isn't possible. I also agree with the idea of instituting energy rating for new construction.
- I believe we should increase tax incentives to encourage the implementation of solar energy in all energy sectors.
- I believe the idea of embedded microgrids with energy storage within the larger energy grid was considered in the report. This idea holds a lot of promise for fostering the implementation of renewable energy, increasing energy security throughout the larger grid, and providing independence and increased energy choice to communities.
- I agree with the dissent on the pursuit of traditional carbon capture and sequestration strategies. I believe this is just a way to continue our reliance on fossil fuel energy and ultimately detracts from funding and attention toward creating a new

energy paradigm.

- As part of fostering increased deployment of solar energy solutions, we need to definitely eliminate the limit of 50 kW for net metered systems. The development of community solar arrays should be incentivized by our primary IOU. All electric coops in the state should be required to adopt net metering regimes.
- I believe the Montana Renewable Energy Portfolio (set at 15% in 2015) should be increased to at least 25%. We have great renewable potential in Montana, and there is no reason we can't be a leader among western states in setting a higher Renewable Energy Portfolio. I agree with the idea of establishing an aggressive energy storage standard for Montana IOUs.
- There is discussion in the report about the development of an integrated western electricity market. This will promote the development and sale outside of Montana of clean renewable energy generated here. There is little discussion of transmission issues in this report, but the [Montana Renewables Development Action Plan](#), created in 2018 by the BPA and the state of Montana, describes various options by which the transmission of Montana renewable energy could be exported to a larger regional grid at different cost levels. I'm sure the council has considered these options but becoming part of an integrated energy market would be a good thing.
- I agree with the idea of fostering the development of apprenticeship programs, some of which can be linked to community colleges. We need to provide opportunities for communities impacted by the loss of fossil fuel related industries. A lot of funding should go in this direction.
- The attention the report paid to innovation and the examples it provided were positive. I definitely agree with pushing the research on, and implementation of, energy storage strategies. The Gordon Butte project has great potential for fostering renewables and increasing capacity factor for Montana wind energy. Storage is key to implementing renewables and phasing out fossil fuels. Developing incentives and mechanisms that direct Montana innovators to work in this field is highly beneficial.
- We need to foster the development of electrical charging infrastructure throughout the Montana interstate highway system. We also need to build out mass transit options incorporating electrified transport. The use of non-food biofuels is a good option for aviation and heavy transport. The generation of biogas opportunities could be applied to some situations.
- I think in considering how to implement strategies for climate adaptation and GHG reduction, financial incentives can be one tool, but eventually governmental regulation will be necessary to break the inertia of the current fossil fuel regime. Tax incentives and revenue collection will have to be radically revised as the report suggests.
- I would like to see the council consider whether the political nature of the PSC really serves the needs of the ratepaying public. It's clear that regarding the issue of climate change, one political party has dropped the ball and has consistently denied the crisis and has stood in the way of addressing it. And that party currently dominates our PSC. These issues truly shouldn't have any obligation to party politics and the fact that the PSC is political has proven detrimental to ratepayers and the environment as a whole. I would like to see the council approach this issue in some manner.
- Another aspect of the problem of addressing the climate crisis in Montana has to do with educating the general populace regarding the reality of the situation. I believe there should be a much more aggressive program of teaching climate science in the public-school system. It should be mandated on a statewide basis just like reading and writing and arithmetic.

In conclusion, I think the plan is good and fairly comprehensive, heading in the right direction. But the issue is truly urgent, and I don't know if this panel can act in an urgent manner. The changes we need to implement are far reaching and economy wide and Montana can play an

important leadership role. I think it's unfortunate that Montana's principle IOU is heading in a direction that is 180 degrees counter to the path this plan is pushing by doubling down on coal fired generation and pointing investment toward fracked methane generation. Are they a sincere advocate for the recommendations presented in the plan? As I said before, everything considered in the plan must be seen through the lens of a climate emergency. From the current health emergency of the covid 19 pandemic we know that extraordinary measures can be implemented far beyond what most people would normally consider possible. The climate crisis is even more threatening. It's just manifesting across a longer timeframe. We need to implement huge changes to our economy and energy systems and we need to do it fast. A Green New Deal scale approach must be adapted nationwide and Montana needs to be a contributor. I hope the Climate Solutions Council will reflect that reality in its recommendations and the actions it takes. One other thing....in light of the ongoing covid-19 crisis and the fact that many people are thinking of other things, please extend the deadline for submitting comment on the plan. Thank you.

From: [Terry Smith](#)
To: [Climate Council](#)
Subject: [EXTERNAL] Climate change
Date: Monday, March 30, 2020 9:51:07 AM

Climate Council:

Montana's electric cooperatives are proven leaders in reducing greenhouse-gas emissions, and in using clean energy sources.

Therefore, I do not believe additional government mandates are needed.

Sincerely,

Carolyn R Smith
Ovando Mt 59854

From: [Jack and Andy](#)
To: [Climate Council](#)
Subject: [EXTERNAL] Please we do not need any more govt. people telling our energy providers what to do. The govt. is not some kind of god and the people of Montana know what's best. Our energy providers are proven leaders in reducing greenhouse gases.
Date: Monday, March 30, 2020 11:12:11 AM

Sent from [Mail \[go.microsoft.com\]](mailto:Mail[go.microsoft.com]) for Windows 10

From: [Doug Wales](#)
To: [Climate Council](#)
Subject: [EXTERNAL] Recommendations on Climate Change
Date: Monday, March 30, 2020 8:23:45 AM

Montana must do it's part in rapidly addressing our global climate crisis. The current covid-19 virus crisis is a wake up call to all humanity. Every community, state, province representing the leading industrial nations of the planet are the ones responsible for the production of carbon, and consequently will be held accountable for making systemic changes and a rapid shift to sustainable and clean energy production.

Dr. Rob Davies, just made recent presentations on climate disruption in Missoula and Bozeman this past month. His warnings were dire. He supports with very sound evidence and data that the next 10 years are the most critical in bending the carbon curve towards net zero. TEN YEARS! Meanwhile in Montana, Northwestern Energy and Electric Coops are advocating for more coal burning and negligible movement towards solar and wind for the next 20 years.

As a 28 year veteran of the ski industry, former board member and chair of the Montana Ski Area Association's Climate Change Committee, I have seen major changes due to the doubling of carbon between 1990 and 2018. From a industry standpoint, this warming trend is a direct threat to our ski state's ski industry as well as our entire outdoor recreation industry. According to a 2018 study by Headwaters Economics, the Montana Outdoor Industry accounted for 7.1 Billion dollars in consumer spending and 71,000 jobs.

After serving as well on the board of Yellowstone Country Tourism of Montana, I've personally witnessed the incredible economic impact of tourism in our state, making it the #1 (non-subsidized) industry in Montana. The growing threat of wildfires, shorter-ski seasons, low-snow pack, temperature related fishing restrictions on rivers, and more all pose a significant threat to Montana's way of life and vital tourism-based economy.

We must take immediate climate action to lower carbon emissions and at the very minimum support bipartisan legislation for federal carbon-tax legislation.

Doug Wales

[REDACTED]
Bozeman, Montana
[REDACTED]

From: [Wong, Mei Ling](#)
To: [Climate Council](#)
Subject: [EXTERNAL] Comments on Draft Montana Climate Solutions Plan
Date: Monday, March 30, 2020 9:31:33 PM
Attachments: [Wong_Montana CSC Preliminary Recs and Key Questions v1.docx](#)

Dear Council Members,

Thank you for providing the opportunity for everyone to share their thoughts, and put a plan together.

I included my comment in the attachment.

A Chinese Proverb: "The whole year's work depends on good planning in spring, and the whole day's work depends on good planning in the early morning."

Good planning beforehand for the climate impact is the precondition for success.

Sincerely,

MeiLing Wong

Preliminary Council Recommendations:

1A: SUPPORT A COMMON FRAMEWORK FOR PREPARING FOR CLIMATE IMPACTS AT MULTIPLE SCALES BY GROWING AND SUSTAINING CLIMATE SCIENCE AND INFORMATION DEVELOPMENT.

Key Strategies:

- Expand staffing and capacity of the Montana Climate Office to build upon current efforts to analyze historical and projected climate trends, and contribute to assessment and adaptation needs.
- Sustain periodic and ongoing climate assessments led by the Montana University System informed by the needs and expertise of state, local and tribal nation governments, businesses and stakeholders.
- Further develop and support the Montana Climate Data Layer Under the Montana Spatial Data Infrastructure and Montana Library based on the work of the Montana Climate Office and ongoing assessments.

Commented [MLW1]: And Museum

1B: ESTABLISH A CLIMATE ADVISORY COUNCIL WITHIN THE MONTANA UNIVERSITY SYSTEM TO COORDINATE RESEARCH AND ASSESSMENT NEEDS AND FACILITATE EXTENSION OF CLIMATE DATA AND SERVICES TO MONTANANS.

Key Strategies:

- Prioritize and conduct research with University Social Scientists to better understand the climate information needs of agricultural producers, forest land managers, tourism and recreation businesses, state, local and tribal governments and other stakeholders in Montana.
- Provide guidance and strategic direction to the Montana Climate Office on matters related to climate modeling priorities, information dissemination, decision support tools, and technology application for resource management.
- Develop and Coordinate a network of Climate Extension Specialists with possible shared appointments between the Montana Climate Office, Tribal Colleges, MSU Agricultural Experiment Stations, MSU Extension, the Montana Forest and Conservation Experiment Station in coordination with relevant state agencies. Use this network to support a communications strategy for target audiences and to support capacity needs for planning, grant applications and other user needs.
- Co-develop, field test, review and evaluate adaptation programs and strategies to identify best practices and lessons learned and ensure strategies deliver results and effective risk management for end users.
- Further develop drought and flood early warning systems to support community, tribal, state and federal responses.
- Consider development of county and municipal scale climate data toolkits to support efficient local adaptation planning.

Commented [MLW2]: Could we build a big database, gather farmers' information (eg crop yield, crop phase, etc.) to understand how climate change affect the crop productivity in MT.

Commented [MLW3]: For the past years, I believe that many research related to climate change effect have been done, could we gather all that research and make the information easier for everyone to assess?

1C: BUILD COMMUNITY RESILIENCE TO CLIMATE CHANGE THROUGH EFFECTIVE PLANNING

Key Strategies:

- Support the Climate Smart Montana network as a platform for communities to share ideas, processes, lessons learned, and resilience plans, so that no community needs to reinvent the wheel.
- Leverage the experiences of practitioners across the state to develop a roadmap and toolkit for planning building from ongoing efforts such as the Department of Commerce’s Montana Ready Communities Initiative.
- Develop strategies to integrate climate adaptation with disaster mitigation plans, wildfire plans, drought and flood plans, others that can support resilience planning and facilitate implementation.
- Incorporate strategies from the forthcoming assessment of climate-related health risks and monitor climate-related illnesses to support local, regional and tribal health providers in response to extreme climate events such as extreme heat, vector-borne diseases, water-related illnesses, food safety and nutrition, wildfires, allergens and air quality, and mental health.
- Learn from and integrate traditional and indigenous knowledge into adaptation efforts.
- Build on and complement the climate adaptation work already happening on tribal lands throughout the state, while recognizing the leadership provided by Montana’s sovereign tribal nations.
- Explore opportunities to integrate adaptation planning with planning to reduce greenhouse gas emissions, especially when solutions offer local resiliency to potential regional energy disruptions, and further local economic development goals.
- Be attentive to a range of co-benefits, as strategies are developed and implemented.

Commented [MLW4]: I suggest getting graduate students who are interested in sharing their “climate change” knowledge together, and distributed them into elementary/middle/high school to teach. I think it will be a fun learning process for a young generation to teach a younger generation.

The younger generations may get excited with science.

Commented [MLW5]:

1D: ADAPT MONTANA’S BUILT ENVIRONMENT TO CLIMATE CHANGE

Key Strategies:

- Integrate adaptation actions with the Montana Disaster and Emergency Services Division’s Hazard Mitigation Programs by working with communities to identify their highest priority risks and vulnerabilities and implement hazard mitigation plans incorporate climate impacts. Evaluate vulnerabilities for Montana’s critical infrastructure (roads, bridges, power lines, telecommunications etc.) and develop coordinated federal, state, local and tribal nation resiliency strategies.
- Ensure local governments have access to updated information concerning current and future high-risk floodplain and wildfire prone-wildland urban interface zones. Support state and local code updates to further reduce risks and impacts.

1F: BUILD THE RESILIENCE OF MONTANA’S PRIVATE WORKING LANDSCAPES (FARMS, RANGELANDS AND FORESTS) AND SUPPORT VOLUNTARY AND INCENTIVE-DRIVEN EFFORTS FOR CLIMATE SMART MANAGEMENT THAT REDUCES RISKS, IMPROVES BOTTOM LINES, AND ENHANCES CARBON STORAGE IN SOILS, FORESTS AND WOOD PRODUCTS.

Key Strategies:

- Recognize Montana producers for their high adoption rates of soil health practices including no/conservation tillage and cover crops, improved grazing systems and efforts to maintain and restore native rangelands.
- Explore partnerships with producers and their associations to research conservation practice adoption factors, cost savings, and climate related co-benefits, such as carbon storage, increased water holding capacity in soils, and reductions in pest and disease risks.
- Partner with USDA resources like the Climate Hubs, NRCS and Rural Development to explore farm-scale and regional on farm conservation and energy planning strategies and align state and federal funding programs to support producer-identified implementation priorities.
- Explore opportunities for Montana farmers, ranchers and forest landowners to diversify income streams through emerging carbon markets, by developing pilot projects or programs that aggregate and quantify enhanced carbon management. Consider other creative efforts that reward producers for climate resilience and carbon management such as cost-share or insurance premium reduction payments, marketing and labeling tools and others.
- Target Farm Bill programs to private working lands that support drought, watershed and wildfire resilience needs.
- Expand operator and manufacturing capacity and diversification of uses of long-lived wood products (*see Chapter 3 for additional wood products innovation discussion*).

1G: SUPPORT CLIMATE RESILIENT FORESTS, RANGELANDS AND WILDLIFE USING AN ALL-LANDS, ALL-HANDS APPROACH ACROSS OWNERSHIP BOUNDARIES

Key Strategies:

- Continue to address wildland fire risks through coordinating interagency planning and response, supporting wildfire-adapted communities, and building resilient landscapes through active forest management to improve safety and protect communities across ownership boundaries.
- Use forest management to maintain structure and composition to increase resiliency to insects, disease and uncharacteristic stand-replacing wildfires; protect municipal watersheds; and maintain the long-term capacity of forests to continue to buffer emissions as natural carbon sinks.
- Maintain a diverse rangeland ecosystem that supports agriculture, recreation, wildlife and pollinators across all ownerships through coordination, flexible tools and conservation incentives.

Commented [MLW6]: Consider diversifying the cropping systems in Montana. This requires Government’s support, to expand the markets for farmers, and give farmers incentive if they grow different crops every year.

both programs provide funding support for three common activities: cost-effective local energy conservation, low-income energy bill discounts, and weatherization activities. Electric USB charges also fund energy research and development, renewable energy development, and market transformation programs. Natural gas USB funding is based on 1.12 % of the utility's annual natural gas revenues from the previous year. Electric USB collections were set based on 2.4 % of the utilities 1995 revenues and over the last 20 years, there has been a decline in the effective value of electric USB funds.

Key Strategies:

- The council recommends the Legislature evaluate and consider changes to the electric USB funding formula.

2G: ENCOURAGE EXPANDED COMMUNITY SOLAR DEVELOPMENT AND ENACT POLICY TO ENABLE SHARED SOLAR FOR INVESTOR OWNED UTILITIES, AND PROVIDE INCENTIVES FOR SOLAR-READY AND SOLAR-INTEGRATED DESIGN AND BUILDING

Description: Community solar benefits average Montanans by making it possible for them to afford investments in renewable energy without having to pay the high cost of owning a renewable energy generator. Maintenance costs are also reduced because these costs are shared by participating individual consumers. Under current property tax law, after expiration of the five-year tax holiday, these community solar arrays are treated as utility property for tax purposes.

Shared solar provides access for individuals, households, and businesses that may not otherwise be able to install a distributed generation system on-site. For example, renters, buildings with shaded roofs, etc. Shared Solar allows the utility to control the siting of the array, which can provide more efficient solar production and more efficient grid interconnection. Shared solar subscribers can help finance projects, lessening burden on developer.

In a report titled, "Solar Ready: An Overview of Implementation Practices," National Renewable Energy Laboratory experts define a solar ready building as one that is engineered and designed for solar installation, even if the solar installation does not happen at the time of construction. The report states that creating a solar ready structure improves the cost effectiveness of solar when pursued at a later date, which eliminates barriers to future solar applications and facilitates market growth. Examples provided in the report demonstrate significant savings if solar-ready measures are implemented during design and construction versus if those measures must be taken during solar installation.

Key Strategies:

- Extend or make permanent the current five-year property tax holiday for community solar energy development by electric utilities (MCA 15-6-225 "Small Electrical Generation Equipment Exemption").
- Advance legislation that clarified investor-owned utilities' in ability to offer shared solar programs.
- The State of Montana should develop incentives that encourage solar-ready design for new buildings in Montana. The incentives should focus on two types of buildings: 1) residential

Commented [HP7]: Seeking confirmation that the author of this white paper has analysis consistent with the findings presented here.

educating well and pipeline operators on methane gas capture and reduction in fugitive emissions. Consider working with the Montana Board of Oil and Gas Conservation to use their biennial \$650,000 statutory appropriation for reclamation projects to support efforts to properly plug orphaned (abandoned) oil and gas wells for which there is no identifiable well operator to eliminate potential fugitive emissions of methane gas. BOGC may have to adjust the environmental ranking criteria to move wells with potential to emit methane to a higher priority.

- In forestry and agriculture, integrate strategies with voluntary and incentive-driven approaches, including potential carbon markets, as outlined in Chapter 1. Consider use of widely available tools from the USDA for estimating greenhouse gas emissions and sinks, including tools like COMET-FARM and COMET PLANNER that allow for farm-scale and regional estimations of the benefits of conservation practices for carbon management and reduced emissions.
- Conduct a study of non-CO2 based greenhouse gas emissions in Montana, including Methane, utilizing recent advances in identifying releases, spanning diverse sources. Consider oil and gas emissions in addition to other methane sources.

Commented [HP8]: Alan, does this need further revision?

Preliminary Council Recommendations Advanced with Dissenting Views Expressed:

20: ADVANCE EFFORTS TO DEVELOP AND DEPLOY CARBON CAPTURE AND STORAGE TECHNOLOGIES

Description: Even as Montana diversifies its energy portfolio, fossil fuels are expected to meet a portion of the energy demand for several decades. Accelerating deployment of carbon capture and storage (CCS) technology is essential to reduce emissions from these power plants, and to support other needs such as renewable fuel production central to meeting the net-neutral goal. Moreover, more than half of the models cited in the Intergovernmental Panel on Climate Change's Fifth Assessment Report required carbon capture for a goal of staying within 2 degrees Celsius of warming from pre-industrial days. For models without carbon capture, emissions reduction costs rose 138 percent. (C2ES)

The Great Plains Institute notes that authoritative analysis by the International Energy Agency (IEA) as well as the Intergovernmental Panel on Climate Change shows the critical role carbon capture must play in achieving US and global carbon reduction targets by 2050. The bulk of US carbon emissions comes from three sources; Transportation (29%), Electricity (28%), and Industrial (22%). Carbon capture enables many industries to reduce or eliminate their carbon emissions, while protecting and creating high-wage jobs. Moreover, for key carbon-intensive industries such as steel and cement, significant CO2 and CO emissions result from the chemistry of the production process itself, regardless of energy inputs. Thus, carbon capture is an essential emissions reduction tool for major industrial sectors that are otherwise difficult to decarbonize.

Governor Bullock co-founded multiple regional and national initiatives supporting carbon capture, including the State Carbon Capture Work Group, the Governors' Partnership for Carbon Capture and the

Figure 1 provides a graphical depiction of building the innovation landscape critical to supporting Montana-based climate solutions. We define each element in the text that follows, beginning from the bottom of the figure.

- **Institutional Entities:** The research capacity within the Montana University System is a central institutional asset for the state. State agencies, philanthropies, non-profit organizations, business associations, and labor unions also are important institutions that bring capacity, experience, and resources to Montana’s innovation landscape.
- **Innovation Environment:** The innovation environment includes local qualities of place such as proximity to research institutions, institutions of higher education, local social processes as well as competitive business and regulatory environments, and policy environments that foster effective fiscal incentives, government policies that support business, and financial and infrastructure incentives to promote business growth. The design of the policy environment in particular can support innovation in market formation (for example, energy balancing markets).
- **Culture:** Describes leadership from public and private institutions critical to developing an atmosphere (i.e., a “culture”) that encourages the creation, support, and dissemination of innovation. A culture of innovation encourages ideas and welcomes new approaches to solving critical challenges. Such leadership can take the form of helping seed and grow relationships, networks, and even business partnerships among institutional entities.
- **Funding Capital:** Substantial and sustained public funding is fundamental to realizing the innovation potential of a community. Public financing of basic research and funding that supports and accelerates innovative solutions to market. New technology markets can emerge around novel technology areas driving the formation of innovation clusters. Innovation clusters create new value in local state economies and attracts private and philanthropic investments.
- **Sustained Material Resources:** Physical research facilities, infrastructure, and access to natural resources offer Montana competitive advantages in advancing energy, climate science,- and technology-related industries.
- **Human Capital:** A robust and adaptable workforce with appropriate knowledge, skills, and abilities is required to establish, grow, and sustain innovative businesses in Montana.



Figure 1: Elements of an Innovation Landscape

From: Tivan Bovington [REDACTED]
Sent: Tuesday, March 31, 2020 10:42 AM
To: McGrath, Shaun [REDACTED]
Subject: [EXTERNAL] RE: Comment Period Extended on Climate Solutions Plan

Here we go

https://oilprice.com/Energy/Energy-General/Trump-Proposes-A-2-Trillion-Infrastructure-Intervention.html?utm_source=browser&utm_medium=push_notification&utm_campaign=vwo_notification_1585696974&_p_c=1
[\[oilprice.com\]](https://oilprice.com)

2.2T

Now

2T

That is \$4.2Trln

But we need it to be Sustainable

It is not the 50s or the 60s or the 80s

It is 2020

so Battery Charging Stations Wind, Solar, Battery Storage wins on price

no Coal

no Gas

Sustainable Infra

Sustainable Cities

#SustainableCities

https://oilprice.com/Energy/Energy-General/Trump-Proposes-A-2-Trillion-Infrastructure-Intervention.html?utm_source=browser&utm_medium=push_notification&utm_campaign=vwo_notification_1585696974&p_c=1
[oilprice.com]

From: Tivan Bovington
Sent: Monday, March 30, 2020 1:59 PM
To: [REDACTED]
Subject: FW: Comment Period Extended on Climate Solutions Plan

Shaun,

Here are some comments on the MT Climate Solutions Plan

In a way this Virus (Crisis) is a blessing in that it will force action and investment.

Much like the 'Marshall Plan' after WW2

See my comments below.

New Capital in Infrastructure must only go one way and it is not Old Fossil Fuel Infrastructure.

It is new Sustainable Infra

\$2.2 Trillion Bill is only the beginning we will do more as the USA and the World. \$5T \$10T \$20 Trillion and so on.

Which is what Sacagwea is ready to do in Alignment with The State of Montana.

Tivan Bovington, CFA

CEO / Principal / Founder
Sacagwea L&C LLC

[REDACTED]
[REDACTED]

From: Tivan Bovington
Sent: Monday, March 30, 2020 12:27 PM
To: [REDACTED]
Subject: RE: Comment Period Extended on Climate Solutions Plan

Thank you for keeping me updated on this Shaun.

One thing is for sure we need to change and do more than was originally thought.

The opportunity to go Net Zero represents job growth and economic growth.

It costs more to stay 'Stranded' with Coal

It costs more to switch to 'Gas'

The opportunity is in Renewables.

Will all that has happened in regards to the Virus and Markets etc. this becomes more evident.

Some may believe that it is better to stay the same, or two only take moderate measures, but that couldn't be farther from the truth.

Need to be strong and Bold and Embrace the New Economy. Embrace the Transition Economy.

Stop going the wrong way (Fossil Fuels) time to change and create massive Economic Prosperity through Clean Energy

Wind, Solar, Storage

No Coal

No Gas

No 'Stranded Asset' investing no more Corporate Welfare for big Coal, Gas, and Oil.

That is the point I would like to make and happy to prove in Numbers.

Truth is on our side

Can't say much about how Truth will support Fossil Fuels.

Feel free to call me and discuss or send emails.

Tivan Bovington, CFA

CEO / Principal / Founder

Sacagewea L&C LLC



From: [David Buck](#)
To: [Climate Council](#)
Subject: [EXTERNAL] Electric Co-ops
Date: Tuesday, March 31, 2020 2:04:37 PM

Leave our Montana Electric Co-ops alone. In The extreme natural world these work. They are efficient proven leaders in providing electricity through all extremes in weather. No rolling black-outs in Montana.

Arlen E DeGoes



Roundup, Montana 59072

TO: Montana Climate Solutions council,

I very concerned that your council will burden the rural tax payers of Montana with additional costs associated with what you might impose of them because of new rules . As you should know, cities cause the most damage to our environment rather than the rural population. Montana's rural population is provided electric power through cooperatives , which have been proven leaders in the reduction emissions of green house gases by utilizing clean energy source such as: large solar arrays to take advantage of the sun's energy to generate electricity. As a college graduate and retired engineering manager for a large defense contractor involved in the research and development. I don't believe that additional government mandates are required at this time!

Respectfully

Arlen E DeGoes

From: [Jeff Fox](#)
To: [Climate Council](#)
Subject: [EXTERNAL] comments of Renewable Northwest on Draft Montana Climate Solutions Plan
Date: Tuesday, March 31, 2020 5:57:45 PM
Attachments: [RNW commens on Draft MT Climate Solutions Plan.pdf](#)

Montana Climate Solutions Council:

Please find the comments of Renewable Northwest on the Draft Montana Climate Solutions Plan attached.

Thank you,

Jeff L. Fox
Montana Policy Manager
Renewable Northwest
www.RenewableNW.org [rnp.org]



March 31, 2020

Montana Climate Solutions Council
ClimateCouncil@mt.gov

Montana Climate Solutions Council:

Renewable Northwest appreciates the opportunity to submit comments on the “[Draft Montana Climate Solutions Plan](#)” (Draft Plan) from the Montana Climate Solutions Council.

Renewable Northwest is a non-profit advocacy organization that works to facilitate the expansion of responsibly developed renewable resources in the Northwest. We have more than 50 member organizations that include renewable energy developers and manufacturers, as well as consumer advocates, environmental groups, and other industry advisers. The common goal of our members is to promote the development of an affordable, reliable, and clean energy system for the betterment of the Northwest economy and environment.

Renewable Northwest appreciates the convening of the Montana Climate Solutions Council and the urgent work to identify potential strategies that can address and mitigate the impacts climate change is having on Montana. Though many of the goals that the Draft Plan recommendations touch upon are laudable, we will primarily focus our comments on the recommendations that specifically focus on our core competency of renewable energy policy. Even here we note that many of the recommendations in the Draft Plan are rightly focused toward end outcomes, but somewhat vague in the details that are meant to accomplish these outcomes. As with any policy, the details can matter and Renewable Northwest’s views on particular policies can change depending on the particulars of any policy or changing circumstances in which a policy is meant to operate. Nevertheless, we hope our comments on the Draft Plan recommendations prove useful to the Council:

Comments on 2B: “ESTABLISH A GRADUATED ENERGY EFFICIENCY STANDARD, A DEMAND RESPONSE STANDARD, AND AN ENERGY STORAGE STANDARD FOR THE STATE’S INVESTOR OWNED UTILITIES (IOUs)”

Today, wind and solar energy technologies are generally the lowest cost energy resource available to utilities and their customers, and the downward trend in wind and solar costs are expected to continue. Both wind and solar resources offer abundant energy production, however neither wind nor solar are “dispatchable” resources that can be called upon to produce energy when desired. An important strategy to maximizing the utilization of these lowest cost resources is energy storage and demand response.



Energy storage and demand response are often two sides of the same coin, both seeking to obtain the biggest benefit from low cost renewable energy resources by either shifting utilization of the resources into times when wind and solar are more available (demand response) or less available (energy storage). Sometimes demand response can avoid energy consumption altogether, when it's economically preferable not to consume energy if real-time costs are made visible through counter offers to avoid consumption. Both demand response and energy storage can achieve greater reliance on low cost (near-zero marginal cost) energy resources, which are usually carbon free renewable energy resources. Demand response and energy storage are, often, in competition for which resource can most cost effectively meet the needs of the energy grid and thus consumers. For this reason, a more ambitious goal for the acquisition of these resources than the one stated in the Draft Plan (which seeks 35 MW of demand response for Investor Owned Utilities over 5 years, and an additional 35W of energy storage for Investor Owned Utilities over 2 years) might consider collapsing these policies into one, allowing the technologies and approaches to compete for market share. However, with both approaches being nascent in Montana, Renewable Northwest believes that catalyzing each with individualized targets is appropriate. Renewable Northwest encourages the Council to contemplate if a more ambitious "phase two" target should be articulated in the final plan, and also supports the contemplated investigatory docket in recommendation 2J, which could help to identify the benefits of an energy storage / demand response standard and the structures that could best achieve the potential.

Renewable Northwest also notes that the demand response and energy storage standards are proposed to only apply to investor owned utilities (IOUs), and not electric cooperatives. The Council is undoubtedly aware that electric cooperatives serve a significant number of electric customers in Montana. The energy needs and resources of these electric cooperatives can vary widely among individual cooperatives, making one-size-fits-all policies for these utilities difficult to adopt. Additionally, and critically, these electric cooperatives operate under a different set of motivations, expectations and desired outcomes than IOUs. In particular, as businesses, IOUs often prefer regulatory certainty in order to narrow the opportunities for conflicting expectations with regulators and in order to help foster investor confidence. Electric cooperatives have less need for either of these beneficial artifacts of state set targets, and their aforementioned differing contexts makes it hard to set desirable policies for all electric cooperatives in the state. Nonetheless, because of the large number of electric customers cooperatives serve, it is important to Montanans and the economic future of Montana that cooperatives take part, where appropriate, in modernizing their energy infrastructure and policies. To that end, Renewable Northwest would like to suggest that electric cooperatives should be encouraged to develop and publicly distribute a plan on the potential beneficial adoption of energy storage, demand response, and energy efficiency at regular intervals for the examination of their customers and state officials. Renewable Northwest believes that electric cooperatives are well positioned and properly motivated to realize the benefits energy storage, demand response, and energy efficiency can offer to their customers as the opportunities are identified, and therefore believe a requirement to meet specified targets is not necessary.



Finally, with regards to the energy efficiency standard contained in this recommendation, Renewable Northwest would simply like to voice our support for the critical importance of energy efficiency as a complementing policy to carbon free energy generation. We also applaud the idea of exempting load growth attributable to beneficial electrification from an energy efficiency standard and note that renewable fuels production, like “green hydrogen,” should likely be included in any beneficial electrification designation.

Comments on 2G: “ENCOURAGE EXPANDED COMMUNITY SOLAR DEVELOPMENT AND ENACT POLICY TO ENABLE SHARED SOLAR FOR INVESTOR OWNED UTILITIES”

As the draft plan mentions, community solar offers an important pathway for solar adoption for many consumers that might otherwise be unable to take direct part in a solar energy facility. Though the plan does not make mention of the specific shared solar structures that should be enabled, Renewable Northwest believes it is important to enable shared solar across a wide array of potential structures, including utility and non-utility owned solar facilities, facilities that are sized to serve just a few participants up to very large facilities designed to serve thousands of customers, and deal structures that can accommodate diversifying an ownership interest in shared solar across numerous solar facilities in order to de-risk performance risk. Finally, though solar is particularly well-suited to shared configurations, we encourage the application of shared solar principles to other renewable energy resources where possible.

Comments on 2I: “STUDY THE FEASIBILITY OF ENCOURAGING GREATER UTILITY SCALE RENEWABLE ENERGY DEVELOPMENT THROUGH REDUCING PROPERTY TAXES ON NEW RENEWABLE ENERGY IN MONTANA”

Generally Renewable Northwest supports recommendation 2I and agrees that state policy can have a significant effect on renewable energy development. However, Montana has already passed some renewable energy friendly tax policies, largely captured as class fourteen property in the Montana Code. In particular, class fourteen property is stipulated to be taxed at a rate of 3% the assessed market value of certain wind, transmission and energy storage infrastructure. Renewable Northwest supports this property tax treatment of clean energy infrastructure. Additionally, new energy projects in Montana can access the new and expanding infrastructure tax abatement (subject to local approval) found in 15-24-1402. The effect of these and other tax policies not specific to renewables (i.e. the lack of sales tax in Montana) can be seen for wind energy in the Center for Energy Economics and Public Policy at the University of Wyoming publication “[Estimating the Impact of State Taxation Policies on the Cost of Wind Development in the West](#).” The current approach to taxation has largely proven workable for wind energy development in the state and beneficial to local governments. With this in mind, Renewable Northwest urges caution in wholesale revision of Montana’s property tax approach to renewable



energy. Nonetheless, targeted renewable energy related tax revisions can prove beneficial to energy development. For example, Renewable Northwest supported [HB703](#) in the 2019 Legislature, targeted at ensuring the Colstrip Transmission System infrastructure continues to be utilized for the export of Montana made energy. Additionally, some of the property tax provisions adopted for wind, transmission and energy storage do not apply to solar energy generation and that resource's tax treatment could probably benefit from careful study.

Comments on 2K: “ADVANCE EFFORTS TO TAKE ADVANTAGE OF A COORDINATED WESTERN ELECTRICITY MARKET”

A coordinated western electricity market could offer Montana consumers immense benefits in both the exportation and importation of energy, promoting renewable energy development in Montana and aiding Montana's energy resilience and reliability through access to the Western United States' vast energy resources. Indeed, many energy modelers believe [Montana wind energy is likely to be an attractive component of many western states' decarbonization goals](#). Should a market develop without Montana's participation, not only could Montana lose economic development opportunities, but our local energy utilities could severely lack trading partners to augment resources within the state. Thankfully, Montana's largest utility, NorthWestern Energy, has already identified many of these threats and opportunities and has made plans to join the Western Energy Imbalance Market. Additionally, NorthWestern Energy already assumes for planning purposes that a full Regional Transmission Organization will be in place with NorthWestern Energy participation by 2025. With NorthWestern Energy's support, and such a clear and compelling state interest in the development of a Western electricity market, Montana has the opportunity to be a leader in helping to push forward and shape a coordinated western energy market. Renewable Northwest fully supports recommendation 2K and welcomes a leadership role from the Governor, the Montana Public Service Commission and NorthWestern Energy.

Comments on 2R: “INCREASE AND UPDATE THE STATE RENEWABLE ENERGY PORTFOLIO STANDARD”

Montana was an early adopter of a Renewable Energy Portfolio Standard (RPS) in 2005. Since 2005, the market for renewable energy both in Montana and in the region have eclipsed the state's RPS. An increased RPS could be helpful in further cementing the expectation of policymakers and developers, but frankly the current trajectory of energy markets suggests that perhaps, like 2005, Montana might be better served by being more forward thinking in our ambition. In particular, energy storage is an area of increased economic opportunity in the West, especially as western states that have moved faster toward decarbonization confront the need to access diverse and dispatchable zero carbon energy resources. While lithium-ion batteries are a current favored energy storage solution, many western utilities and policymakers will want to



diversify their energy storage options and augment them with technologies that offer a variety of capabilities. Here, the Draft Plan identifies two promising areas of energy storage where Montana has a unique ability to lead, hydroelectric pumped storage that can capitalize on our geographic advantages and green hydrogen that can capitalize on our technological know-how found at Montana Tech and in our oil refinery industries. The demand for these technologies is already strong and growing. Attracting investment and growing a presence in these sectors might better help Montana's economic transition to a low carbon energy economy than an exclusive focus on our own energy consumption, which is a minor component of the West's energy appetite and now a lagging indicator of the transition taking place in energy markets. So although Renewable Northwest is certainly a strong proponent of the RPS policies that helped to transform the energy sector, policymakers might have more impact, and encounter less resistance, in aligning state incentives and policy supports toward Montana's promising energy storage sectors.

Thank you for the opportunity to offer these comments on the Draft Plan. Renewable Northwest is grateful for the focus on climate solutions and stands ready to help achieve a low carbon energy future for Montana.

/s/

Jeff L. Fox
Montana Policy Manager
Renewable Northwest

From: [Jacqie Gee](#)
To: [Climate Council](#)
Subject: [EXTERNAL]
Date: Tuesday, March 31, 2020 8:11:48 AM

Thank you for your important work on evaluating the issue of climate change on Montana. This report is a good first step in looking at what Montanans will need to do to adapt to the inevitable consequences of climate change.

One issue I did not see addressed in the Council's recommendations was the need for a price on carbon which is an important component of fighting climate change at the state, local and federal levels.

I support your endeavors for an integrated approach to addressing climate change in our state which includes incorporating university studies and providing "blueprints" for communities to use which will make more efficient use of limited resources.

Climate change is real and will impact our ability to work, play and live in our great state. I support policies that incorporate our best use of available climate studies to ensure our community continues to thrive now and for future generations.

Thank you for this important first step.

Jacqie Gee

[REDACTED]

Billings, Montana 59106

#8-40

From: [Suzn Gehring](#)
To: [Climate Council](#)
Subject: [EXTERNAL] Counsel recommendations
Date: Tuesday, March 31, 2020 11:20:14 AM

Thank for doing this important work in such a thoughtful manner. I would like to see our state be more encouraging to solar and I support carbon credits
Sent from my iPhone

From: [Rachel Haberman](#)
To: [Climate Council](#)
Cc: [Mark Lambrecht](#); [Jeri Custer](#); [Ross Holter](#); [Greg Jergeson](#); [REDACTED] [Lynda Wadsworth](#)
Subject: [EXTERNAL] Energy Share of Montana comments - MT Climate Solutions Council Recommendations
Date: Tuesday, March 31, 2020 10:17:06 AM
Attachments: [ClimSolutComments.pdf](#)

To Whom It May Concern,

Attached are Energy Share of Montana's comments on the Preliminary Recommendations and Key Questions of the Montana Climate Solutions Plan.

Thank you for the opportunity to comment. Please let me know if you have any questions.

Rachel Haberman, Executive Director
Energy Share of Montana

[REDACTED]

Helena, MT 59602

[REDACTED]

[REDACTED]

[REDACTED]

<http://www.energysharemt.com> [energysharemt.com]

<https://www.facebook.com/Energy-Share-of-Montana> [facebook.com]

Energy Share's Draft Comments in Response to Recommendation 2F: Request a legislative study on the Universal System Benefits Program Funding Mechanism for Electric Customers.

The recommendation itself, to study the USB funding mechanism, could be a positive step but could also have some unintended consequences that could negatively impact low-income Montanans. Such consequences could include higher electric USB rates, resulting in higher rates across the state. This would harm low-income Montanans, the very people Energy Share helps. If this recommendation is adopted, Energy Share strongly urges the Council to support the current set of low-income programs and maintain or increase current funding for them.

Energy Share of Montana is a statewide, nonprofit organization whose main purpose is to provide a source of funds to help fixed and low income people in Montana who have energy-related emergencies and have no other resource available to help them. It is the intent of the organization to provide assistance to people who are currently insufficiently assisted by federal, state, local government, and private programs.

Energy Share raises funds in the private sector and receives some electric and gas USB funds from utilities, electric cooperatives and large electric users.

About 75% of Energy Share's program budget funds emergency bill assistance, and about 25% is used for energy conservation programs such as furnace and water heater safety and efficiency, weatherization, and cost-effective refrigerator replacements.

Emergency bill assistance not only helps families stay warm in the winter – a critical need in Montana – but also helps reduce the number of disconnects that occur. It costs the utilities about \$75.00 to disconnect someone and that cost goes back into the rate base. Energy Share's assistance prevents that from happening.

Energy conservation programs such as weatherization help low income families save energy and money. The measures are cost-effective and the weatherization program follows strict guidelines to ensure cost-effectiveness. Energy Share's furnace and water heater safety and efficiency programs help ensure those appliances are safe and energy efficient in the homes of our low-income neighbors.

Prior to USB being incorporated into Montana statute, Energy Share was able to help about 900 families per year at the most. With USB, we are helping an average of 2,600 families per year with bill assistance and another 100-150 with energy conservation programs.

Additionally, Energy Share works closely with LIEAP and Weatherization. We have mutual clients in many cases. The same agencies (the Human Resource Development Councils or HRDCs) contract with DPHHS and Energy Share to determine program eligibility and distribute funds. We see firsthand the other positive effects of USB among Montana's low-income population, including a monthly discount and weatherization assistance. The emergency bill assistance Energy Share can provide, combined with LIEAP, Weatherization, energy education

provided by Weatherization, and the discount, add up to substantial and much-needed support for those in need.

If you proceed with this recommendation, the Energy Share Board of Directors strongly encourages you to support the current low-income electric USB funding and program structure.

Energy Share's Comments in Response to Recommendation 2G: Encourage expanded community solar development and enact policy to enable shared solar for investor owned utilities.

It is Energy Share's assumption that some of the individuals who benefit from the existing shared solar systems are low income. Energy Share supports this recommendation on behalf of its clients if there are sufficient incentives to make this an affordable option for low-income customers.

Energy Share's Comments in Response to Recommendation 2H: Provide incentives for solar-ready and solar-integrated design and building.

Energy Share supports this recommendation. To the extent it is possible to provide these incentives, it would do nothing but help senior citizens and/or low-income Montanans who live in multi-family housing units.

From: [Alan Johnstone](#)
To: [Climate Council](#)
Subject: [EXTERNAL] Comments on Montana Climate Solutions Plan
Date: Tuesday, March 31, 2020 6:23:06 PM

TO: The Governor's Climate Solutions Council,

I am writing as a Board Member, President of the Board at this time, of Park Electric Cooperative in Park County. I am also a rancher and use a lot of electricity, most especially as an irrigator. Park electric has approximately 6,000 members as well as a large mine that is a major employer in our part of Montana.

I would like to make a few general comments on the Plan as well as address some of the specific questions asked in Section 2Q. I will also comment on some of the 'White Paper.' Topics not in the Plan at this time. I comment primarily as Coop member.

In general:

I think the 2035 target is probably unachievable if true zero emissions are sought. While there are great advances being made in clean energy there are still too many variables to set a firm goal. If we acknowledge the variables I think there will be more interest in letting innovation rather than top down mandated actions do the job. One example is battery storage as a way to address the problem of solar and wind variability. There is a lot of talk about batteries but there are many hurdles ahead. There are, so far, only small scale tests being done. The life of batteries on large scale seems to shorten very quickly.

Another concern I have is that there seems to be little acknowledgement of the place of hydropower now and in the future. Approximately 60-70% of the electricity Park Electric uses comes from hydropower through the WAPA program. Will we support hydro as a clean source in the future? Will we be inclined to take out dams to increase fish spawning opportunities?

Similarly, natural gas is going to have to be part of the equation. If we decide to encourage the transition to electric vehicles where will the new electricity come from? It is a huge shift and the Council should carefully evaluate how this can be done as we phase out coal. It seems that we must accept gas generation at least as a transition fuel. And this is even more important if we incentivize Montanans to use electric resistance heat for hot water, cooking, etc. Hydro and gas would seem to be necessary. Nuclear power must be considered too. The Council should specifically request cost benefit studies on generation including gas, hydro and nuclear

Regarding specific questions in Section 2Q:

"How can the state, cities and counties work more collaboratively..... ?" I suggest taking advantage of our great Extension Agency people. They are well positioned to encourage energy efficiency.

"How could an energy efficiency standard, demand response standard, and an

energy storage standard.....” This is happening at the Coop level already. I don’t think we need to impose “standards” on Coops. In many cases Coops are already billed by demand as well as energy and they are trying to adapt. As I pointed out earlier, there is still a lot to be done to get to dependable storage so it would be a mistake to try to set standards now.

“How should electric cooperatives report on their work to support and advance electric vehicle infrastructure?” The very question implies way too much in the way of government interference and paperwork. Electrical vehicles are working their way into the marketplace. To require that cooperatives report their activities in regard to them only adds paperwork. If the demand is there coops and their members will definitely meet it. Why add to the cost of doing business by requiring reporting?

I feel the same way about the next question regarding ‘beneficial electrification.’ Fossil fuels will be worked out of the market place by clean energy over time. The state should not try to pick winners. Look at the Tonopah generation facility as an example.

Regarding the “White Paper” not included the present Plan:

I am opposed to requiring coops to finance energy efficiency upgrades for members.(Page 18) There are too many problems in trying to make a business that distributes electricity also be a banker. There may be coops willing to do so but to legislate that coops across the board do so would be a costly mistake.

I like the idea of encouraging community solar (p.38) whenever possible. To me it is safer and more efficient than numerous small scale net metered installations.

Finally I would like to mention something that apparently was considered but left out: opposing the Keystone Pipeline due to it’s impact on indigenous peoples, especially women. While I know that this kind of consideration reflects sincere concern it is an unfortunate conflation of unrelated ideas. To introduce these kinds of ideas will only alienate most Montanans. This will only make it harder to do the important things the Council should be doing with regard to energy efficiency and controlling greenhouse gasses.The plan is well thought out in many ways but will suffer if unrelated and, in my mind, extremist views are seriously entertained.

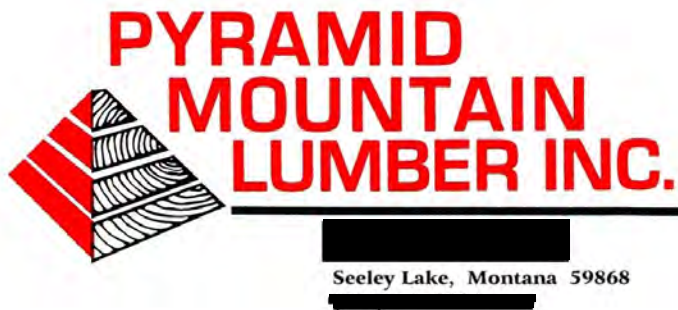
Thanks for you time,
Alan Johnstone, Wilsall Mt.

From: [Scott Kuehn](#)
To: [Climate Council](#)
Cc: [scott kuehn](#)
Subject: [EXTERNAL] Pyramid Mountain Lumber, Comments on the draft Montana Climate Solutions Plan
Date: Tuesday, March 31, 2020 8:39:58 AM
Attachments: [PML Climate change Final comments.docx](#)

See attached

Scott Kuehn
Certified Forester
Pyramid Mountain Lumber
[REDACTED]
Missoula, MT 59804
[REDACTED]

Forest Health is 2 rings/inch



March 31, 2020

Pyramid Mountain Lumber, Inc. in Seeley Lake submits the following comments on the Montana Climate Solution Plan. To fine tune our comment on this plan, we've retained the sections and wording of the sections referencing our comments.

We'd also like to forward the Society of American Foresters (SAF) position statement on Forest Management and Climate Change. Pyramid strongly supports the position SAF has taken on this issue. (Attached)

Pyramid is concerned that the plan barely mentions active forest management in reducing greenhouse gas (GHG). There are millions of acres of private, state and federal forests in Montana that absorb GHG annually. These millions of acres also sequester millions of tons of carbon. Active forest management can help reduce stand replacement wildfire risks and as a byproduct, sequester carbon in the products removed and used in building material and other wood products.

#3

1D: ADAPT MONTANA'S BUILT ENVIRONMENT TO CLIMATE CHANGE

- **Implement active management across ownership boundaries to reduce wildfire risks and sustain watershed functions as identified in Montana's updated Forest Action Plan. Implement an engagement process to educate and inform stakeholders on the Department of Environmental Quality's Smoke Management Program, highlighting the ability to use prescribed fire for forest fuel reduction on a year-round basis and the need for funding to improve smoke management forecasting.**

Pyramid supports active management on all ownerships of forested lands in Montana. Not just for reduction in wildfire risks, but to maintain healthy, productive forests that absorb millions of tons of CO every year. Active management also includes harvesting trees to maintain forest health.

These trees will be processed into wood products that will be used in homes and buildings sequestering CO for years.

In regards to the Smoke Management program you mention, every forest manager is aware of the Montana/Idaho Airshed program and many of us, including Pyramid Lumber have been members since its inception in 1978. Every forest manager is aware of the use of prescribed fire for forest management and fuels reduction. We've been using prescribed fire for the last 50 years. We have been working with the MT DEQ to allow more prescribed burning, especially during the winter months.

#7

- Increase urban forest canopy in communities large and small to provide cooling shade, sustain public health and reduce energy consumption

Urban forestry canopy is a small, but important part of the solution. But this plan rarely mentions the millions of acres of wildland, Tree Farm, private industrial forest that absorb CO every day. Montana forests play a huge role in reducing CO that this plan failed to address.

1F: BUILD THE RESILIENCE OF MONTANA'S PRIVATE WORKING LANDSCAPES (FARMS, RANGELANDS, AND FORESTS) AND SUPPORT VOLUNTARY AND INCENTIVE-DRIVEN EFFORTS FOR CLIMATE SMART MANAGEMENT THAT REDUCES RISKS, IMPROVES BOTTOM LINES, AND ENHANCES CARBON STORAGE IN SOILS, FORESTS AND WOOD PRODUCTS

#4

- Explore opportunities for Montana farmers, ranchers and forest landowners to diversify income streams through emerging carbon markets by developing pilot projects or programs that aggregate and quantify enhanced carbon management. Consider other creative efforts that reward producers for climate resilience and carbon management such as cost-share or insurance premium reduction payments, marketing and labeling tools and others.

Montana forest owners already diversify their income streams by utilizing active forest management. Keeping their forest healthy, absorbing CO, providing for wildlife, water and reducing wildfire risks. Every tree harvested and turned into a 2x4 or a sheet of plywood is sequestering carbon for years to come.

#5

- Target Farm Bill programs to private working lands that support drought, watershed and wildfire resilience needs.

#6

- Expand operator and manufacturing capacity and diversification of uses of long-lived wood products (*see Chapter 3 for additional wood products innovation discussion*).

What is your definition of “Long-lived wood products?” It’s only mentioned here. Are you thinking Mass Timber which is mentioned in 3D #4? Mass timber is a new innovative way of construction with wood and does sequester carbon, but so does a 2x6 in a single-family home, or apartment complex. This plan seldom mentions the sequestration of carbon by using wood products in building. It is mentioned several times in regard to ranching or underground carbon storage.

1G: SUPPORT CLIMATE RESILIENT FORESTS, RANGELANDS, AND WILDLIFE USING AN ALL-LANDS, ALL-HANDS APPROACH ACROSS OWNERSHIP BOUNDARIES

Key Strategies:

- Continue to address wildland fire risks through coordinating interagency planning and response, supporting wildfire-adapted communities, and building resilient landscapes through active forest management to improve safety and protect communities across ownership boundaries.
- Use forest management to maintain structure and composition to increase resiliency to insects, disease and uncharacteristic stand-replacing wildfires; protect municipal watersheds; and maintain the long-term capacity of forests to continue to buffer emissions as natural carbon sinks.

Pyramid strongly supports active management on all forested lands. Forest management and fuels reduction projects rely on heavy equipment and hundreds of gallons of diesel (Fossil fuel) a day. Log trucks hauling the logs burn diesel. All of which goes against the policy of this plan to reduce the use of fossil fuels. We know of no plans to convert logging equipment or log trucks to electric motors. Adding recharging stations at rest areas as promoted in this plan, will not replace the need for diesel for trucking in the near future. Each new truck or piece of equipment has to conform to Tier 3 or 4 emission regulations. A tier 4 diesel engine in downtown Los Angeles is actually an air filter, that is, the exhaust is cleaner than the air it takes in. (See Caterpillar web site)

- Biofuels – including opportunities to produce aviation jet fuel or fuel for heavy duty truck transport from woody biomass.
- Mass timber construction and wood products innovation – including efforts to develop new structural construction materials and products like wood-fiber insulation.

Pyramid supports the development of Biofuels from wood products, and Co-generation facilities which utilize excess forest fuels, but must be cost effective. We also support the new mass timber building program, but we also support the use of wood products in the entire housing industry. It doesn’t matter if it’s a 2x8 used in a mass timber wall, or a 2x8 used in a home, both sequester carbon for years.

3D: CONTINUE THE STATE'S EFFORTS TO EVALUATE, EXPAND EXISTING AND RECRUIT NEW INDUSTRIES TO MONTANA THAT REDUCE CARBON EMISSIONS OR SEQUESTER CARBON WHILE PROVIDING WELL-PAYING JOBS AND INCREASING TAX BASE

Key Strategies:

The primary benefit of this recommendation is to leverage existing efforts and successes in sectors where Montana exhibits comparative and competitive advantages. The following are examples of existing efforts by the state to develop industries that will help address climate change. More work is required to identify additional industries and to evaluate their current needs relative to the innovation landscape.

- Biofuels – including opportunities to produce aviation jet fuel or fuel for heavy duty truck transport from woody biomass.
- Mass timber construction and wood products innovation – including efforts to develop new structural construction materials and products like wood-fiber insulation.

For example, Montana and the U.S. are experiencing a structural economic transition away from manufacturing and natural resources sectors to services and innovation-related activities that began in the mid-1970s. The transition is driven by productivity gains in primary and secondary sectors and trade that has reduced the number of high-wage, skilled jobs in traditional sectors. Consequently, the state's economic geography has changed over the past several decades: today, most new growth is concentrated in the state's largest cities and many rural communities are falling behind. These economic and geographic changes interact with natural resources and climate related impacts on communities. For example, the forest industry has restructured and automated in ways that require fewer workers, affecting rural communities and labor. Existing infrastructure and planning systems limit the capacity of the industry to treat forests at higher risks of wildfire due to climate change, historic forestry practices, and greater risks due to development in the Wildland Urban Interface. These interlinked transitions will require coordinated planning and responses from public agencies, communities, labor, universities, and industry.

Pyramid absolutely disagrees with the last paragraph. Yes, the forest products industry has changed over the last 50 years. Pyramid employs over 130 people in the small "Rural" town of Seeley Lake. We rely on profession loggers and log haulers to cut, process and haul the logs to our mill. Thompson Falls, Livingston, Deer Lodge, St. Regis all have sawmills in their small rural town. These mills are the life blood of these towns. Not just the mills, but the loggers, truckers and support businesses. Fifty years ago, a logger could by a D5 Caterpillar or skidder for under \$50,000. Today's loggers have millions tied up in just several pieces of equipment. These state-of-the-art machines are all computerized and require a fleet of specialized mechanics to work on the

computerized systems. What do you mean when you write” “Existing infrastructure and planning systems limit the capacity of the industry to treat forest at higher risks of wildfire due to climate change...” We don’t know where you came up with that statement, but is totally false. All of the mills in Montana are operating at 60-70% capacity. Lack of long term, reliable, and sustainable timber supply is the problem, not lack of infrastructure. Many loggers are hired by the wildland fire fighting organizations to help fight forest fires which provides them with more work days due to lack of harvesting and forest management opportunities during the year.

3G: Reform Montana fiscal policy to address economic transitions

Key Strategies:

Montana’s economy is transitioning away from natural resource sectors and toward services. The economic transition will have fiscal implications because of the state’s existing tax structure that taxes natural resource sectors more highly than other economic activities (such as health care, the fastest

We disagree that Montana’s economy is transitioning away from Natural Resources. The Forest Products industry is still Montana’s number one manufacturing sector. Sawmills are investing million dollars’ worth of upgrades, and the USFS is increasing their annual cut in Region 1.

This plan really misses the easiest and cheapest form of reducing GHG and sequestering carbon: Active forest management.

This plan mentions funding for more research numerous times. Much of this plan looks like it’s designed to increase funding to those already hooked on government grants and almost ignores the role forests and forest products play to help reduce GHG. Pyramid would support funding towards research and incentives for Bio-Char and Co-generations plants associated with local sawmills. We would also like to see a proposed budget for every action item listed that outlines the costs to the taxpayers and actual revenues that these actions will return.

Pyramid strongly supports the Society of American Foresters position statement on “Forest Management and Climate Change” which is attached below.

Sincerely,

Pyramid Mountain Lumber

Forest Management and Climate Change

A Position of the Society of American Foresters

Originally adopted on December 8, 2008 and subsequently revised and renewed by the SAF Council on December 7, 2014. This position statement will expire in 2020, unless, after subsequent review, it is further extended by the SAF Board of Directors.

Position

The Society of American Foresters (SAF) believes that climate change policies and actions should recognize the role that forests play in reducing greenhouse gas (GHG) emissions through 1) the substitution of wood products for nonrenewable building materials, 2) forest biomass substitution for fossil fuel-based energy sources, 3) reducing wildfire and other disturbance emissions, and 4) avoided land-use change. SAF also believes that sustainably managed forests can reduce GHG concentrations by sequestering atmospheric carbon in trees and soil, and by storing carbon in wood products made from the harvested trees. Finally, climate change policies can invest in sustainable forest management to achieve these benefits, and respond to the challenges and opportunities that a changing climate poses for forests.

Issue

Of the many ways to reduce GHG emissions and atmospheric particulate pollution, the most familiar are increasing energy efficiency and conservation, and using renewable energy sources as a substitution for fossil fuels. Equally important is using forests to address climate change. Forests play an essential role controlling GHG emissions and atmospheric GHGs, while simultaneously providing essential environmental and social benefits, including clean water, wildlife habitat, recreation, and forest products that, in turn, store carbon. But regulatory uncertainty and the unintended consequences of wood energy and GHG emission reduction policies creates confusion about the appropriate role of forests in GHG mitigation. These policies may also have the potential to diminish the positive benefits forests can play in stabilizing the Earth's climate.

Forests sequester and store carbon at different rates depending on species, climate, and management practices. The rate of sequestration and the timing of carbon emissions directly impacts long-term atmospheric GHG concentrations. But assigning impacts is often lacking in empirical evidence, and diminishes recognition of potential benefits (Kim and Dale 2011, Marshall et al. 2011, Miner et al. 2014). The diversity of forest systems, combined with regulatory and even scientific uncertainty about how to measure GHGs across these diverse systems, has created an unstable policy environment. Businesses are uncertain about future energy policy, and are concerned new regulations could jeopardize valuable renewable energy investments. Others are concerned that state and federal incentives for wood energy could have unintended consequences, though fears like increased Amazonian deforestation as a result of the US incentives for bioenergy in the 2005 and 2007 Energy Acts have not materialized (Boucher 2014). Similarly, while GHG benefits of sustainable forest biomass energy are sometimes delayed, it is increasingly well established that these benefits are substantial over the long term (Miner et al. 2014).

Finally, changes in long-term patterns of temperature and precipitation have the potential to dramatically affect forests nationwide through a variety of changes to growth and mortality (USDA Forest Service 2012). Many such changes are already evident, such as longer growing and wildfire

seasons, increased incidence of pest and disease, and climate-related mortality of specific species (Westerling et al. 2006). These changes have been associated with increasing concentrations of atmospheric carbon dioxide (CO₂) and other GHGs in the atmosphere. Successfully achieving the benefits forests can provide for addressing climate change will therefore require explicit and long-term policies and investment in managing these changes, as well as helping private landowners and public agencies understand the technologies and practices that can be used to respond to changing climate conditions.

Background

The capacity of forests to sequester carbon is a function of the productivity of the site and the potential size of the various pools—soil, litter, down woody material, standing dead wood, live stems, branches, and foliage. Enhancement of sequestration capacity depends on adequate stocking of trees, maintaining health, minimizing soil disturbance, and reducing losses due to tree mortality, wildfires, insect, and disease. Management that controls stand density by prudent tree removal can provide society with economic benefits via renewable products, including lumber, engineered composites, paper, and energy, even as the stand continues to sequester carbon. Above all, enhancing the role of forests in reducing GHGs requires keeping forests as forests, increasing the forestland base through afforestation, and restoring degraded lands. Two active and complementary forest management approaches to addressing climate change are 1) mitigation, in which forests and forest products are used to sequester carbon, provide renewable energy through wood energy, and avoid carbon losses; and 2) adaptation, which involves positioning forests to become healthier in the face of changing climate conditions and impacts. Adaptive strategies include increasing resistance to insects, diseases, and wildfires; and increasing resilience for recovering after disturbances. A more controversial technique is assisting migration—facilitating the transition to new conditions by expanding genetic diversity, encouraging better-adapted species mixtures, and providing refugia. This approach is newly emerging and not without concerns about expediting transitions.

Traditional silvicultural treatments focused on wood, water, wildlife, and aesthetic values are fully amenable to enhancing carbon sequestration and reducing emissions from forest management. Choices regarding even-aged and uneven-aged regimes, species composition, slash disposal, site preparation, thinning, fertilization, and rotation length can all be modified to increase carbon storage and reduce emissions. Similarly, ecological restoration of fire-adapted systems enhances sequestration and helps avoid loss to wildfire (Finkral and Evans 2008).

Prudent forest management and wood utilization practices can specifically reduce GHG emissions through solid wood substitution, forest biomass substitution, reducing wildfire and other disturbances, and avoided land-use change.

Solid Wood Substitution

Substituting wood for fossil fuel-intensive products can reduce GHG emissions in several important ways. Life-cycle analyses reveal that lumber, wood panels, and other solid wood products store more carbon, emit less GHGs, and use less fossil energy than steel, concrete, brick, or vinyl, whose manufacture is energy intensive and produces substantial emissions (Lippke et al. 2004). Harvesting temporarily reduces carbon storage in the forest by removing organic matter and disturbing the soil, but much of the carbon is stored in forest products. The carbon in lumber and furniture, for example, may not be released for decades; paper products have a shorter life. Storage of carbon in harvested wood products is gaining recognition in domestic climate mitigation programs, though accounting for the carbon through a product's life

cycle is complex given the range of substitution options. Solid wood product substitution, however, provides long-term carbon storage that when combined with appropriate waste and landfill management can further delay the conversion of wood to GHG emissions, or provide waste wood for power generation to reduce the need for fossil fuel generation. Wood products from sustainably managed forests can also be replenished continually, providing a dependable supply of both trees and wood products while supporting other ecological services, such as clean water, clean air, wildlife habitat, and recreation.

Forest Biomass Substitution

The use of wood to produce energy and other products opens three opportunities to reduce GHG emissions. One involves using forest biomass for electrical power generation and heating, rather than allowing low-value forest residues to accumulate and decay on site or removing it by open burning. The other is substitution of forest biomass as a feedstock for biofuels and biochemicals, which can be substituted for fossil-derived fuels and chemical production. This is because fossil-derived emissions newly introduce pollutants into the atmosphere, whereas biogenic emissions are re-sequestered over time adding no new GHGs to the atmosphere. Finally, use of wood as a manufacturing material can also reduce fossil fuel emissions compared to use of other materials that require more energy to produce and use (Miner et al. 2014). The use of forest biomass for energy can reduce oil and gas imports, and reduce regional dependence on coal, natural gas, diesel, and heating oil. The use of forest biomass to address climate change also enhances domestic economic development by supporting rural economies and fostering new industries making value-added bio-based products.

Forest biomass presents a viable option that could sustainably generate hundreds of millions of tons annually from logging, treatments to reduce fuel buildup in fire-prone forests, treatments to improve forest health, fuelwood, forest products industry waste, urban wood residues, and plantations (Perlack et al. 2011). It can be mixed with coal or added to oil- and gas-generated electric production processes to reduce GHG emissions. Substituting cellulosic biomass for fossil fuels greatly reduces GHG emissions; for every Btu of gasoline that is replaced by cellulosic ethanol, total life-cycle GHG emissions (CO₂, methane, and nitrous oxide) are reduced by 90.9 percent (US EPA 2007). But not all biomass is created equal. An accurate comparison of the carbon impacts of forest biomass energy with those of other energy sources requires the use of consistent timeframes in the comparison.

Reducing Wildfire and Other Disturbance Emissions

Active forest and wildland fire management strategies, including prescribed fire, that reduce fire intensity and restore forest health can dramatically reduce GHG emissions. One modest wildfire—the July 2007 Angora wildfire in South Lake Tahoe, on 3,100 acres of forestland—released an estimated 155,000 tons of carbon dioxide and other GHGs into the atmosphere, and the decay of the trees killed by the fire could bring total emissions to 570,000 tons. This is equivalent to the GHG emissions generated annually by 105,500 cars (Bonnicksen 2008). More than nine million acres burned across the United States in 2012 and more than seven million acres has burned on average each year over the past decade (NIFC 2014). The cumulative emissions from these fires is both staggering and an opportunity to significantly reduce emissions through coordinated forest management activities.

Massive bark beetle outbreaks in the late 2000s across western North America increased the available dead wood that can lead to catastrophic fires, and similarly can release massive amounts of GHG emissions as the remaining dead trees decay. Such outbreaks are projected to

increase with warming climate conditions (Hicke et al. 2012). Canada estimates that the bark beetle outbreak shifted its land use carbon inventory from sequestering CO₂ to becoming a net emitter of CO₂ (Kurz et al. 2008).

Virtually all climate change models forecast an increase in wildfire activity. Under extreme fire behavior scenarios, which could be exacerbated by climate change, increased accumulations of hazardous forest fuels will cause ever-larger wildfires. Wildfires are also burning with more intensity, which can then lead to unintended consequences of changes in vegetative makeup and subsequent reduction in carbon sequestration (Westerling et al. 2006). Wildfires in the United States and in many other parts of the world have been increasing in size and severity, and thus future emissions are likely to exceed current levels.

Avoiding Land-Use Change

More carbon is stored in forests than in agricultural or developed land. Preventing land-use change from forests to nonforest uses is thus another way to reduce GHGs. Globally, forestland conversions released an estimated 136 billion tonnes of carbon, or 33 percent of the total emissions, between 1850 and 1998— more emissions than any other anthropogenic activity besides energy production (Watson et al. 2000). Forest conversion and land development also releases carbon from belowground soil stocks. For example, soil cultivation releases 20 to 30 percent of the carbon stored in soils. Additional emissions occur from the loss of the forest biomass, both aboveground vegetation and tree roots.

In the United States, a major threat to forestland is the rise in land values for low-density development. Landowners generally convert forestland to residential and commercial uses to capture increasing land values. This is especially true when forests are damaged by wildfire, insects, or other disturbances, as selling the land for development rather than investing for long-term reforestation would be attractive. Since climate change may increase the prevalence of such disturbances, forestland conversion may increase in the future.

Several options may be used to slow the rate of private forestlands being converted to nonforest uses. Easement acquisitions provide one method to encourage landowners to keep forests as forests. New and stable product markets also provide positive incentives to landowners (Miner et al. 2014). It is therefore necessary to support viable wood products markets that recognize the benefit of carbon storage and sequestration, and that provide positive incentives for forestland ownership. Sustainable utilization of working forests for a combination of wood products can improve forest landowners' returns on their land, bolster interest in forest management, and thus prevent conversion to other uses.

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From: [LWV Billings](#)
To: [Climate Council](#)
Subject: [EXTERNAL] LWV-Billings Comments on Draft Montana Climate Solutions Plan
Date: Tuesday, March 31, 2020 1:22:45 PM

The League of Women Voters of Billings (LWV-B) supports the work of the Climate Solutions Council in drafting a Montana Climate Solutions Plan.

The LWV-B is a nonpartisan political organization, encourages informed and active participation in government, works to increase understanding of major public policy issues, and influences public policy through education and advocacy.

The call for comments on the Preliminary Recommendations is a key step in assessing and addressing the climate-related challenges faced by our state. The LWV-B supports the Council's continued diligence to ensure public participation in deliberations and decision-making at each phase in the process of and at each level of government involvement in environmental protection.

Carbon pricing is not mentioned in the Council's Preliminary Recommendations. The League of Women Voters of the United States (The League) supports a price on carbon and the LWV-B supports consideration of how a price on carbon can be incorporated into the Council's recommendations, making development of renewable energies more attractive to the market.

The LWV-B recommends that the Montana Climate Solutions Plan include recognition of the effects carbon pricing at the state, regional, or federal level may have on the transition to renewable sources of energy.

This includes the needs of Montana workers and communities in transition.

The LWV-B supports the following Preliminary Recommendations of the Montana Climate Solutions Council of February 11, 2020, in agreement with positions adopted by of the League of Women Voters of the United States (the League). (*Impact on Issues, 2018-2020, A Guide to Public Policy Positions*)

1. Prepare Montanans for Climate Impacts

1A: SUPPORT A COMMON FRAMEWORK FOR PREPARING FOR CLIMATE IMPACTS AT MULTIPLE SCALES BY GROWING AND SUSTAINING CLIMATE SCIENCE AND INFORMATION DEVELOPMENT

The League supports climate goals and policies that are consistent with the best available climate science and that will ensure a stable climate system for future generations.

1B: ESTABLISH A CLIMATE ADVISORY COUNCIL WITHIN THE MONTANA UNIVERSITY SYSTEM TO COORDINATE RESEARCH AND ASSESSMENT NEEDS AND FACILITATE EXTENSION OF CLIMATE INFORMATION AND

SERVICES TO MONTANANS.

The League believes that protection and management of natural resources are responsibilities shared by all levels of government. The League would like to see inclusion of local governments in the conservation efforts inherent in the plan. For example, the City of Billings recently formed the Energy and Conservation Commission with the goal of reducing energy consumption and costs at the municipal level. We would like to see the state reach out to these local committees to help create efficiencies through coordinated efforts.

1H: PROTECTING MONTANA'S WATER QUALITY AND QUANTITY FROM CLIMATE CHANGE

The League supports water resource programs and policies that reflect the interrelationships of water quality, water quantity, ground water, and surface water and that address the potential depletion or pollution of water supplies. Policies should achieve water quality essential for maintaining species populations and diversity, including measures to protect lakes, estuaries, wetlands, and in-stream flows. This may include stringent controls to protect the quality of current and potential drinking-water supplies, including protection of watersheds for surface supplies and of recharge areas for groundwater.

2. Greenhouse Gas Mitigation Strategies

2B: ESTABLISH A GRADUATED ENERGY EFFICIENCY STANDARD, A DEMAND RESPONSE STANDARD, AND AN ENERGY STORAGE STANDARD FOR THE STATE'S INVESTOR OWNED UTILITIES (IOUs)

2C: ADVANCE EFFORTS TO PROMOTE ENERGY EFFICIENCY THROUGH TOOLS LIKE ON-BILL FINANCING

2E: SUPPORT PROGRAMS TO ADVANCE COMMERCIAL ENERGY AUDITS, GRID- INTEGRATED WATER HEATERS, AND MOBILE HOME REPLACEMENT

2G: ENCOURAGE EXPANDED COMMUNITY SOLAR DEVELOPMENT AND ENACT POLICY TO ENABLE SHARED SOLAR FOR INVESTOR OWNED UTILITIES

2J: ENCOURAGE THE PUBLIC SERVICE COMMISSION TO OPEN A DOCKET ON ENERGY STORAGE AND EXPLORE STATE INCENTIVES FOR THE INSTALLATION OF UTILITY-SCALE STORAGE DEVELOPMENT

2L: ADOPT LOW EMISSION VEHICLE STANDARDS AND ESTABLISH TAX INCENTIVES FOR LOW AND ZERO EMISSIONS VEHICLES

The League believes that climate change is a serious threat facing our nation and our planet. The League believes that an interrelated approach to combating climate change—including through energy conservation, air pollution controls, building resilience, and promotion of renewable resources—is necessary to protect public health and defend the overall integrity of the global ecosystem.

The League supports climate goals and policies that are consistent with the best available climate science and that will ensure a stable climate system for future generations. Individuals, communities, and governments must continue to address this issue, while considering the ramifications of their decision, at all levels—local, state, regional, national, and global.

The League supports:

- a variety of energy sources, with emphasis on conserving energy and using energy-efficient technologies;
- the environmentally sound use of energy resources, with consideration of the entire cycle of energy production;
- predominant reliance on renewable resources;
- action by appropriate levels of government to encourage the use of renewable resources and energy conservation through funding for research and development, financial incentives, rate setting policies, and mandatory standards;
- mandatory energy-conservation measures, including thermal standards for building efficiency, new appliance standards and standards for new automobiles with no relaxation of auto emission control requirements;
- policies to reduce energy demand and minimize the need for new generating capacity through techniques such as marginal cost or peak-load pricing or demand-management programs.

2R: INCREASE AND UPDATE THE STATE RENEWABLE ENERGY PORTFOLIO STANDARD

The League supports environmentally sound policies that reduce energy growth rates, emphasize energy conservation, and encourage the use of renewable resources.

Thank you for pushing forward to put together a comprehensive solution for the impact of climate change on Montana.

Cathy Fitzgerald
LWV-Billings, President



From: [Judy Matson](#)
To: [Climate Council](#)
Subject: [EXTERNAL] comments
Date: Tuesday, March 31, 2020 9:42:49 AM

Thank you for this comprehensive plan. To implement measures that will arise from this plan it seems that a central state office should be established to coordinate the efforts of climate initiatives within state agencies. Raising awareness is critical and difficult to do. The current COVID-19 crisis illustrates how serious a problem must become in order to engage even most of the people. Going ahead with climate initiatives will be necessary to bring people along even if they aren't interested or won't pay attention. In the long run, the changes such as those outlined in the report will enhance our standard of living.

I would urge implementation of conservation methods. On-bill financing is a good strategy to help finance energy saving improvements. In my neighborhood are many residents living in pre-1976 trailer homes. They would not have the resources to pay for their own insulation projects so as a society we should assist them. Any money the residents save on energy bills will be spent on food and other necessities. A grant program by NorthWestern Energy should be considered for those too poor to pay. Insulated homes will result in less electricity being wasted and will benefit the utility company. An attractive, energy efficient roof cover or trailer shell system could be developed and widely used by installers, generating more jobs to bolster the economy while strategies for replacing old trailers with newer energy efficient models are worked out.

Rate strategies are imperative. Time-of-use rates are an effective way to promote energy conservation. I have spent time with family in Arizona where time-of-use rates are the way of life. In a very short time, the user can adapt to using energy in non-peak hours. Smart technologies are helpful, but learning a change of habit is all the technology required.

We really need community or shared solar. Offering energy ratings for new structures is a good idea, but one should not be required to cut down trees or not plant trees when a simple solution of shared solar is available.

The transportation issues are challenging. On the one hand, drivers of gas powered vehicles carry more of the load for highway taxes when more people use low emission vehicles. However, drivers of low emission vehicles shouldn't be punished for reducing emissions. A better solution would be a system to charge drivers according to the number of miles they drive. This would also reward conservation. How to implement this is certainly more difficult than collecting a tax at the pump, but surely there are apps which could be installed in cars to report this. I think the same incentive would motivate drivers to drive less as wearing a FitBit motivates them to walk more. Trucking firms relying on gas powered engines can use the data to justify raising the cost of goods rather than externalizing the cost of highway maintenance. Ultimately having everyone use low emission vehicles and/or public transportation is the goal.

I have commented on sections relevant to my experience. Again, I appreciate the thought that has gone into the preparation of the entire document and realize that the need to confront climate change is a hard sell in many Montana communities.

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Judy Matson



From: [Miles McGeehan](#)
To: [Climate Council](#)
Subject: [EXTERNAL] Support carbon neutral energy
Date: Tuesday, March 31, 2020 8:03:24 AM

Hello,

I'm writing in support of advancing Montana's carbon neutral energy solutions.

Please continue supporting residential net metering but also consider these options too.

- Please consider supporting neighborhood communities with the ability to share a central energy system such as net-metered solar or wind.
- Please allow schools and universities become exempt from net-metering limitations (currently 50kW). The same should apply to other public buildings such as police, fire, municipal, and government office spaces. Why should our publicly funded buildings create large carbon footprints which cause harm for current and future generations?
- Please create a tourist tax to fund grants for alternative energies around the state. Millions of people travel to Montana each year for our outdoor environmental-based tourism. Why should we allow the irony of their carbon emissions do harm to our largest economic industry? A USDA report clearly identifies a retraction in our outdoor tourism industry over the next twenty years as a result of climate change impacts.
- Please consider energy storage such as Pump Storage Hydropower to convert excess solar and wind energy collected during power production peak times to then produce energy during off peak hours.

Thank you for reading and all the hard work you do to protect Montana's environment, tourism, and quality of life.

Miles McGeehan
School Teacher, Fly Fishing Guide, Husband, Father of Two Young Ladies.

From: [Marta Meengs](#)
To: [Climate Council](#)
Subject: [EXTERNAL] Public comment on the Montana Climate Solution's Plan
Date: Tuesday, March 31, 2020 8:44:51 AM

Hello to the Climate Solution's Council,

I am sending a few points that I think must be included in this plan that are at this point not emphasized enough:

-**A need for mandates on Greenhouse Gas-emitting industries in Montana.** In other words, we need to be able to enforce non-compliance and should mandate actual percentages of decrease that each industry must meet.

-We need a clear and concise statement, **based on the leading climate science**, on what is necessary to avoid a global climate crisis. In this message, the urgency of required action (to reduce greenhouse gas emissions) must be stated.

-The solutions in this plan should **place restrictions on new fossil fuel infrastructure built in Montana** (this includes natural gas extraction and new natural gas plants, as well as pipeline construction).

-Montana needs to stop any fossil fuel subsidies.

-Support education to **increase public awareness of the urgent need for decreasing greenhouse gas emissions and acting to address the climate emergency.** The misinformation (downright lies), that has been supported by some who do not respect the science, has led many Montanans to think that this is not an urgent issue. I must say there is a comparison to the Corona virus misinformation here as it seems to be an active campaign in this country to

not listen to credible science with disastrous results!

-**Put more effort into helping farmers in their efforts to practice more regenerative farming practices** (building healthy soil, water conservation, rotating crops, cover crops, etc) that will decrease greenhouse gas emissions.

Thank you for considering my comments, Sincerely,
Marta Meengs, [REDACTED] Missoula, MT. 59801

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From: [Marta Meengs](#)
To: [Climate Council](#)
Subject: [EXTERNAL] public comment on Climate solutions Plan
Date: Tuesday, March 31, 2020 8:54:19 AM

Hello (again) to the Governor's Climate Council,

I wanted to add something to my list of recommendations in my last email. I wanted to state that the plan's list of actions for assisting agriculture and land management was comprehensive and inspiring. What I would like to see are some **specific** government supported ways to actually get these actions done. **What agencies will be going around the state, talking to farmers, meeting with them, helping them (with both education and financial needs) in all these required changes?** The kind of support is what is needed in a big way and having high plans without the individuals and support needed to implement will not create the big changes needed.

Thanks again for reading my last thoughts! Sincerely, Marta Meengs

██████████ Missoula, MT 59801. ██████████

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From: [Chelsea Pardo](#)
To: [Climate Council](#)
Subject: [EXTERNAL] Montana Climate Solutions Plan
Date: Tuesday, March 31, 2020 9:10:44 AM

Hello,

I'm writing to submit my public comment regarding the draft Montana Climate Solutions Plan. I'd like to express my support for the recommendations addressing renewable energy and energy efficiency found in Chapter 2. I especially support Recommendation 2Q: Increase the Allowable Systems Size for Distributed Generation Systems. The current size cap for small-scale generation interconnecting to the grid is incredibly restrictive.

Thank you,
Chelsea Pardo

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Chelsea Pardo
Project Coordinator
Bozeman Green Build

[REDACTED]
Bozeman, MT 59715
[REDACTED]

From: [REDACTED]
To: [Climate Council](#)
Subject: [EXTERNAL] comments Montana climate solutions plan
Date: Tuesday, March 31, 2020 11:54:11 AM

I am Gary A. Peterson retired and living at [REDACTED] Helena, Mt 59601. I support the work of the Montana Climate Solutions Council. I am particularly supportive of your sections 2G, 2H, and 2R which seek to expand the State's renewable energy portfolio and the expansion of a policy to enable solar investment.

I would also like to suggest that more emphasis be placed on the development and expansion of mid sized and mini hydro generation projects. Many irrigation projects and small hydro storage facilities could be retrofitted to produce power. There are also some larger facilities which could be retrofitted such as the Yellowtail afterbay dam.

Thank you for what you are doing to better serve Montana and the world.

From: [Robin Paone](#)
To: [Climate Council](#)
Subject: [EXTERNAL] Comment on Draft Montana Climate Solution Plan
Date: Tuesday, March 31, 2020 12:18:08 PM
Attachments: [Paone Comment to CSC.pdf](#)

Dear Montana Climate Solutions Council,
Please find our comments in the attached file "Paone Comment to CSC.pdf".
Sincerely,
Robin, Bill and Katerina Paone

Dear Montana Climate Solutions Council,

March 31, 2020

We are very thankful to all of you for your work on the Montana Climate Solutions Plan. We feel you play a key role in moving Montana towards a future filled with opportunity for all its citizens!

However, we found carbon pricing missing from The Plan. Leading experts say Carbon Dividends policies, a form of carbon pricing, are the best way to curb climate change. They have broad bipartisan support because they are fair, are transparent, do not grow government, boost local economies, and most important of all, are very effective at quickly reducing carbon pollution by impacting all sources.

The alternative to carbon pricing is regulations. Studies have shown a modest carbon price can reduce emissions as much as regulations, at far less cost. And, with Carbon Dividends the poor are better off.

Here is what a Carbon Dividends policy will do:

Montana's Electric Cooperatives and Their Customers: A Win-Win

A large percentage of the power provided by our co-ops is low-carbon. This means customers will see little change on their electricity bills but still get the same cash dividend! And, co-ops are still free to choose regionally appropriate power supplies which will continue to be more and more carbon-free.

Unleash Capital Investment in Montana

Montana has plentiful clean energy resources. A predictable and rising price on carbon would rapidly direct capital to low-carbon solutions. We have businesses with utility-scale energy storage products ready to sell. We have shovel-ready energy projects. Carbon Dividends insures profitable investment.

Prevent Yellow Vest Revolts

Carbon Dividends, unlike a tax, provides monthly cash payments to all Americans evenly. This protects low and middle income households from price increases during energy transition.

Keep Montana Businesses Strong

Will it become too expensive to do business in Montana? No, not with Carbon Dividends policy which includes carbon rebates for exporters. This provides a level playing field for our Montana businesses.

Grow our Economy with Cash Payments

As shown by the CARES Act, it is well known that money in the hands of Americans helps keep our economy running. Carbon Dividends gives cash payments to Americans ensuring a healthy and growing economy while making a gentle transition to a clean energy future. It does not grow our national debt.

The Energy Innovation and Carbon Dividend Act, HR 763, is based on Carbon Dividends policy and will provide all of the above benefits. See: <https://energyinnovationact.org/>

Though we have focused on what is not in The Plan (carbon pricing) we still feel it is very important. What is right for Montana will be a combination of policies to mitigate and adapt to climate change, and also help affected communities. Adding carbon pricing might allow for simplification of The Plan.

In summary, we urge you to add support for carbon pricing into The Plan because it will benefit all Montanans. First, endorse The Energy Innovation and Carbon Dividend Act. Second, as we wait for Federal policy, support statewide carbon pricing. A statewide scheme will provide Montana a jump-start on building out our plentiful clean energy resources, preparing us for a bountiful future.

With great appreciation,
Robin, Bill, and Katerina Paone, Whitefish

From: [Jaq Quanbeck](#)
To: [Climate Council](#)
Subject: [EXTERNAL] MT Climate Solutions Council Recommendations
Date: Tuesday, March 31, 2020 9:57:54 AM

Thank you for your work addressing the demands of climate change in Montana. Many solutions will be needed.

Sincerely,
Jaq Quanbeck

From: [Betty Whiting](#)
To: [Climate Council](#)
Subject: [EXTERNAL] Montana Climate Solutions Plan
Date: Tuesday, March 31, 2020 3:30:43 PM

March 31, 2020

Dear Montana Climate Solutions Council:

Thank you, Gov. Bullock for establishing the Council, and thank you Council for your excellent preliminary recommendations report. I especially liked reading the case studies of innovations.

All three subcommittees addressed a need for organizing Montana. I would encourage you to use the groups already formed. An organization like Montana Disaster and Emergency Service and/or the MSU Local Government Center could be expanded for research, education, and communication. Name a Climate Change Solutions Czar who is the go-to-person for all issues and who works under the Governor's office. Every county, multi-county district, or tribe would appoint one person to work with the state leader to coordinate local research, education, and response. Fund the expansion with an incrementally rising tax on all fossil fuels adding to the coal severance tax fund.

Under **Preparing Montanans for Climate Impacts**, awareness needs to be developed. The coronavirus epidemic shows us how early awareness is critical to saving lives. Currently, few Montanans feel climate change is an emergency. We have groups like Humanities Montana that could work with the Montana Climate Office and put speakers out in every community, small or large, and give people the facts. In 1B, MSU could take the lead on research but Tribal colleges, Rocky Mountain College, hospitals, business technology, and high schools should be included in research and communication of the research. Spiritual well-being as well as mental health needs to be integrated and supported under 1C. Faith leaders are a natural resource for bringing awareness of earth care to the public and there are organizations like Montana Association of Christians or the Interfaith Power and Light who could lay the groundwork. In 1C and later energy disruptions during peak hours is mentioned; if people are aware of the peak hours, many may voluntarily use less at that time so all can be fed energy as needed. Awareness is key. In 1E, there's no information on using public transportation for tourists. We need buses that run from the Billings and Bozeman airports to Yellowstone Park; from Missoula and Great Falls to Glacier with park buses picking tourists up for park excursions. We need buses from Billings to Red Lodge for skiing and Bozeman to Bridger and Big Sky, etc. More tourists, fewer cars. Good ideas for agriculture, forests, and water management (1F, 1G, 1H) Protect and expand wilderness areas. Protect water resources through tree planting in riparian areas. To the question of what's missing, there are no strategies for caring for the homeless and dealing with hunger as food resources diminish.

Under **Strategies to Reduce Greenhouse Gas Emissions**, urgency is the key. Drastic changes need to occur before 2035. Under 2A, include the energy rating label for all home and building sales, not just new homes and buildings. Under 2B, why not require all new trailer/mobile homes to have a higher efficiency standard and provide free energy conservation improvements to any low-income families. For example, there might be a non-profit group or contractors (probono) who would help

insulate low income homes. In 2C, I've never heard of the on-bill financing for improved energy efficiency but I like it. It's similar to our 10 year small addition to property taxes for a new sidewalk. I like all the rest of your ideas (2D through 2 K) many of which I've never heard. Encourage more solar panels everywhere. Why not solar panels on our roads and parking lots. I've heard it works. . . i.e. the panels are sturdy enough to drive over. You'll need to educate the legislature and electric energy companies NOW to get bills passed in 2021 for buying more renewable energy and advancing energy storage. Section III on higher emission vehicle standards, moving toward electric vehicles and charging stations is great. On 2N, what about passenger trains on the Montana southern routes and bus routes between small and large towns and tourist centers. Include transportation from airports. In Section IV, the research on carbon emissions and sinks would be good to have and incorporate it into a competition for companies/areas/industries to have more sink than emissions. Do scientists know of potential future geological harm with carbon injection wells? And I agree with the dissenting view that carbon capture might be an incentive to continue current fossil fuel use. Have you studied "Drawdown" by Paul Hawkin? Lots of ideas that I didn't see in your report: reducing food waste, developing geothermal energy, more silvopastures. For 2Q and 2R the legislature needs to quickly approve large scale generation and increase Montana's Renewable Portfolio Standard.

In **Capturing Innovation Opportunities**, coordination and funding looks critical. Your case studies are exciting innovations, some of which could have huge global impact as well as to Montana. Under 3B couldn't we have a state investment bond dedicated to innovative landscape in which individuals could invest. Have 0% loans for innovative programs as long as they give back a % to the fund when they start to make a profit. Under 3F, set up a mentor program (with minimum wages) similar to the medical WAMI program where students and laid off workers could apply to work one-on-one with a seasoned "professional" for a short period of time with the expectation they stay in Montana. E.g. solar panel installers, planting trees in urban/ agricultural/state parks , geothermal construction, working on carbon emission research, educating communities on the Montana Ready Communities Initiative. Once the intern is trained and when the new career begins, require a small % payback to the mentor fund for a short period of time. In reforming Montana's fiscal policy (3G), taxes (a fee on fossil fuel use) and tax credits (for industries lowering carbon) needs to continue. A weekly information system from Montana Climate Solutions, like Yale Climate Connections, could go out to all schools, businesses, individuals telling of the innovative projects , giving out the latest research information, having mentor applications.

Your preliminary report is exciting. Thank you for your dedicated work and I wish you well in the Montana Climate Solutions Plan.

Betty Whiting



From: [Carla Abrams](#)
To: [Climate Council](#)
Subject: [EXTERNAL] Comments on draft Montana Climate Solutions Plan
Date: Wednesday, April 01, 2020 12:12:08 PM

Council Members,

Thank you for your efforts in producing the draft Montana Climate Solutions plan.

That said, I have noticed that the deck is already stacked against this committee doing anything meaningful when it comes to meaningful fossil fuel restrictions and renewable portfolio standards (RPS). Maybe, if we just keep hammering home what really needs to happen, eventually things will change. However we have run out of time. The time to act, to make Montana a leader, is NOW.

In addition to the specific comments below, please make it a priority that implementation begin immediately for those measures which can begin right away and that will help reduce greenhouse gas emissions.

-- Please support efforts to expand Montana's ability to understand climate risks and prepare for change. In particular, recommendations 1A through 1H should be funded and acted upon.

-- Montana needs more accessible climate science. Please support a larger Montana Climate Office with more staff, stronger Montana University System climate coordination, research and funding, and increased support from the state to communities so they can develop greenhouse gas reduction and climate adaptation strategies.

-- Recommendations 2A through 2E and 2G through 2K are essential for Montana to reduce greenhouse gas emissions and avoid locking into new fossil fuel infrastructure. Montana is deficient in programs and funding to support energy efficiency and conservation and the key strategies identified, if enacted swiftly and with financial support, are essential. They will save Montanans money while improving public health.

-- A statewide energy efficiency standard would save all Montanans money.

-- Raising the size cap on distributed generation solar systems (aka rooftop solar) would benefit schools, libraries, and other public buildings in their community - saving taxpayer dollars and creating educational opportunities for our youth.

-- Support adoption of low emission vehicle standards and actions that will incentivize/promote/enhance electric vehicles.

-- Please encourage and support community goal setting, energy data collection across sectors, and planning efforts to reduce emissions and save money in local communities.

-- Voluntary controls on oil and gas development are inappropriate. The industry has had decades to voluntarily curb greenhouse gas emissions and has failed to do so. Methane emissions from oil and gas development are easily controlled and should be required. The time has past for voluntary commitments from this greenhouse gas producing sector.

-- Carbon capture and sequestration is not an appropriate climate solution for coal-fired electricity. This unproven technology only makes dirty, expensive coal plants even more expensive and risky. The final recommendations should focus on reducing reliance on coal-fired electricity instead of relying on misguided, expensive, risky, and unproven technology.

Thank you,

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Carla Abrams



Missoula , MT

From: [bob filipovich](#)
To: [Climate Council](#)
Cc: [bob filipovich](#)
Subject: [EXTERNAL] "Comments on the MT Climate Solutions Council"s draft report
Date: Thursday, April 02, 2020 10:30:02 AM

There are many useful ideas in this draft Report which were created by informed, generous Montanans. I hope that the clearest, most precise, least expensive over the long run, scientifically based, and practical suggestions will become actions that help Montana's people and environment. I offer remarks on some of the key words in this Report, and a few criteria that should be used in selecting and prioritizing the best ideas within this Report.

Key words in global warming and climate change literature include:

RESILIENT: to spring back, return to original form or position, recovering. "Resilient" implies a going back again, back to something as it was; recovering as a patient does after trauma or recovering as a furniture upholsterer or surgeon who sews a covering back into its original place. Going back to what was before is imitation – or even deception. The recovered patient cannot be or act as he had; the creek scraped of toxins is no longer pristine; after the wedding, the bride becomes the wife.

ADAPT: to adjust or modify, accommodate, reconcile, conform to. "Adaptation" implies adjustment to things as they are; forget what was. Do what is needed now under present circumstances. There is a capitulation within 'adapt'; a giving up or giving in. Practical, realistic, but unanchored and lacking in passionate action. "Adapt" says: "Well, we gotta do what we gotta do." Adaptation is kin to technology. When the ground becomes too hard to plow, the adaptor buys a bigger tractor.

SUSTAIN: to hold or bear up from below, bear the weight of, to keep going, to hold as valid or just. "Sustain" implies that precedent is right, that the force that is, is enough to justify what will be -- now and tomorrow. One sustains an injury but survives. Is precedent and survival all we can do? Or should do?

MITIGATE: to lessen the force or intensity of; to moderate the severity of; to make more gentle. Mitigation takes on the opposing force straight on; Mitigation requires observation, memory, history, and most important: science. Mitigation says: "Yes, the temperatures are warming, the droughts and flooding are becoming more severe. So what are WE going to do about that?" Mitigation starts with the courage to recognize the problem as it actually is and then to take genuine hard steps to reduce the power of the negatives in our midst – the green house gasses, the externalized costs, the status quo, the BS that pretends to be information, the Economic Costs, and the belief that "Treasure State" means the gold and silver, not the quiet, beautiful, clean & healthful place we call home. Mitigation needs nothing less than science, hard science: biology, ecology, chemistry, physics, geology, climatology, plus psychology, political science, and economics in the back seat.

Criteria for selection and prioritization (questions to ask of each recommendation) should include: Does this recommendation reduce greenhouse gasses? Is it based in science? Is this recommendation based on some proven best practice? Can laws or rules be made to put this recommendation into actions that are enforceable? What are some examples of what is intended in this recommendation? (For example, 3F uses the terms "mitigation" and "adaptation" in its sentence, but provides nearly no specific examples of what this recommendation really means).

Thanks to all who contributed to this Report. Much is riding on its success. Bob

Filipovich [REDACTED] Helena MT 59601 [REDACTED] March 31, 2020

From: [Kyro, Colton](#)
To: [Climate Council](#)
Subject: [EXTERNAL] Comment Draft Montana Climate Solutions Plan
Date: Friday, April 03, 2020 9:41:38 AM

Name : Colton Kyro

Location: Missoula MT, 59801

Overall, the plan appears to be broad and general enough to encompass the needed actions Montana will need to make to transition into a renewable economy and society. I have some specific comments toward some facets of the plan that may be of use. First I would say the Absaroka Energy's Gordon Butte Pumped Storage Project is step in the right direction as these types of projects will be necessary to store renewable energy. I would suggest a similar project could also be accomplished at George Town Lake and Silver Lake in Deer Lodge County. The two lakes are connected via an old pump that was historically used as part of mining operations in Butte.

Another suggestion is to encourage the development and shift to perennial grains and crops. The tillage of soils exposes stored carbon and allows for it to be released into the atmosphere. Perennial crops negate the need for tillage and can sequester carbon through biomass growth in their roots thus increasing the carbon storage of soils. A non-profit called the Land Institute is attempting to create a perennial version of wheat as well as a cousin of the wheat Kernza.

Another suggestion involving the reality of more of our precipitation coming as rain and earlier snow melt - is the use of beaver dam analogs(BDAs) in stream restoration and conservation. BDAs are an environmentally friendly way to retain water and allow it seep out over longer time periods increasing discharge later into the season. This is important as improving the discharge of streams later in the season will be critical in maintaining our trout fisheries. More water in the stream often means colder water which is vital for our trout especially in our warming world. Additionally, BDAs also promote riparian areas which can be very productive and used by a plethora of organisms.

From: [Ellen Pero](#)
To: [Climate Council](#)
Subject: [EXTERNAL] Comments on draft Montana Climate Solutions Plan
Date: Friday, April 03, 2020 8:20:02 AM

Council Members,

Thank you for your efforts in producing the draft Montana Climate Solutions plan. In addition to the specific comments below, please make it a priority that implementation begin immediately for those measures which can begin right away and that will help reduce greenhouse gas emissions.

-- Please support efforts to expand Montana's ability to understand climate risks and prepare for change. In particular, recommendations 1A through 1H should be funded and acted upon.

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Thank you,

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Ellen Pero


Missoula, MT
Missoula

From: [David Saslav](#)
To: [Climate Council](#)
Subject: [EXTERNAL] Comments on draft Montana Climate Solutions Plan
Date: Friday, April 03, 2020 2:36:14 PM

Council Members,

Thank you for your efforts in producing the draft Montana Climate Solutions plan. In addition to the specific comments below, please make it a priority that implementation begin immediately for those measures which can begin right away and that will help reduce greenhouse gas emissions.

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Thank you,

--

David Saslav


Great Falls, Montana

Please implement the task force recommendations

Climate Council - MT DEQ
 c/o Rebecca Harbage



I do not have a computer
 so could not respond on line.
 I obtained this address from
 Lincoln Electric ^{co-op} in Eureka, MT.

We are sending the message
 stated in Rural Montana Magazine ^{March}
 on pg. 1: "MT's electric cooperatives ²⁰²⁰
 are proven leaders in reducing
 green-house gas emissions, and in
 using clean energy sources. There-
 fore, we do not believe additional
 government mandates are needed."

This is a suggestion to you and
 the Rural MT. magazine From Us
 (John + Linda Jett): As Senior
 Citizens we do not have Internet.
 This is the case with many of our
 age. It would be of benefit to
 all that a phone number and an
 address be added to such articles
 so members of all ages might or
 could respond.

Thanks - Keep Well

John + Linda Jett

Rexford, MT. 59930

John Jett + Linda Jett



March 25, 2020

[REDACTED]
Seattle, WA 98115

[REDACTED]
Whitefish, MT 59937


[REDACTED] -
[REDACTED]
Montana Department of Environmental Quality
c/o Rebecca Harbose
Director's Office
[REDACTED]
Helena, MT 59620-0901

Re: Draft Report – Montana Climate Solutions Council

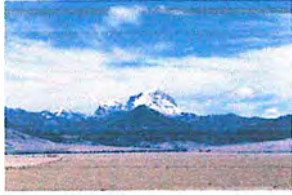
Dear Ms. Harbose:

I support the draft report of the Montana Climate Solutions Council. I hope that on June 1, its recommendations will become final with a minimal amount of changes. Climate change is a challenging issue. I commend the Council for its detailed analysis and recommendations. Implementation of the recommendations will be painful but necessary. I hope that the decision-makers will think of their children and grandchildren when considering the final report. Thank you.

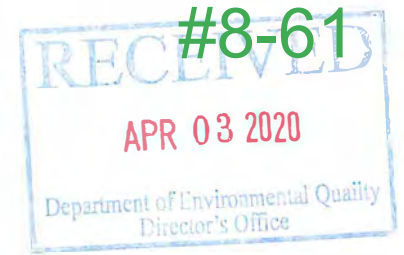
Very truly yours,


Fritz Wollett

P.S. I own a second home in Whitefish and normally commute by train from my primary residence in Seattle. I also own a 2017 Chevrolet Bolt, an EV. Lots of fun to drive and to minimize my carbon footprint in that part of my life.



Roxann Lincoln
[REDACTED]
Helena MT 59601
[REDACTED]



March 27, 2020

Rebecca Harbage
Public Policy Officer
Montana DEQ
PO Box 200901
Helena, MT 59620-0901

Dear Rebecca Harbage:

I would like to comment on the Draft Montana Climate Solutions Plan dated January 31, 2020. I believe this document has addressed the current climate situation in a very effective manner and made very appropriate recommendations for the state to adopt. This is such an important issue that needs to be addressed immediately.

I strongly support the following preliminary recommendations:

Recommendation 1H to protect Montana's water quality from the effects of climate change. Montana's water quality is important to all citizens and our way of life.

Recommendation 2G to increase the use of distributed solar power across the state. Installing solar power on our rooftops is a more efficient use of power and land resources. The power produced is used by the building and less energy is lost due to transportation from a generation site. In addition, large areas of land are not taken up by solar panels and better left for agriculture, forestry, recreation, etc.

Recommendation 2J to increase the support for solar and wind projects via review by the Public Service Commission. The PSC is not supportive of these projects and currently is poised to approve the continued use of coal power. The public has stated repeatedly that they do not support this type of power.

Recommendation 2Q increasing the size of distributed systems. The more distributed use of energy the better. Using solar power on existing buildings should only be limited by the amount power that can be installed or is needed. And all new building should be required to install rooftop solar systems.

I disagree with the Dissenting View of this matter. The more rooftop solar energy produced the more we all benefit because less new electric sources are needed. Currently the building owner

pays for solar generation system, uses some of the energy and gets a credit for the excess to grid. There is little to no cost to the electric utility. Energy purchased from others sources is based on market prices. Rooftop solar is a very clean form of energy.

Recommendations 3 A&B to coordinate with Montana's university system to conduct clean energy alternative research and recommend the best options for the state.

Recommendation 3E supporting Montana Ready Communities. I support the development of publicly owned community generating systems that would tie into Montana's existing grid. Many communities are more proactive than current privately held utilities and will produce cleaner energy at a much better price. In addition, these stand alone systems can help communities be more self-sufficient during times of crisis or natural disasters. A community system may be able to continue producing energy when another portion of the grid may be down preventing wide scale shortages.

Lastly I support new projects such as the Absaroka Energy's Gordon Butte Pumped Storage. These types of projects solve the storage problem while using much cleaner energy sources. Montana must be more proactive in encouraging and using alternative power solutions.

I question Recommendation 2M concerning going to total use of electric cars. I recommend that a study be conducted to determine which is the more efficient, hybrid cars or totally electric cars. I feel that hybrid cars are more efficient than total electric. Wide spread use of electric cars will be a huge increase in electric energy use and will increase the production of electricity from natural gas. Moreover, charging stations installed through out the state will be very expensive. Hybrid cars using gasoline as well electric generation are more practical because the vehicle generates a portion of the energy usage while it is running. Gasoline usage is considerably reduced instead of increased.

In closing I would like to encourage the promotion of several energy sources instead of relying on electric power for most part. A balanced energy portfolio is more reliable and safe from power fluctuations and other problems. I strongly urge adoption, implementation and funding for this import plan.

Sincerely,



Roxann Lincoln

C: Andrew Valainis, MRE
Montana Public Service Commission

From: [Kathryn O'Leary](#)
To: [Climate Council](#)
Subject: [EXTERNAL] Public comment: I support clean energy in Montana
Date: Saturday, April 04, 2020 6:39:35 AM

MT Climate Council

RE: Public comment: I support clean energy in Montana


null

Montanans care about the uniquely beautiful mountains and sweeping, lush valleys of our state -- and we want a climate plan that protects these special places for future generations.

I fully support the efforts laid out in the Montana Climate Solutions Plan to reduce emissions, promote energy efficiency and tackle transportation pollution. Furthermore, I believe we need a state-wide energy policy that ensures all Montanans benefit from emissions reduction. Expanding access to climate research, strengthening the Renewable Portfolio Standard and passing a statewide energy efficiency standard would be important steps on the path to a cleaner, more sustainable society.

Montana is already behind other states in their climate goals, and when it comes to protecting our state and world from the worst impacts of climate change, there's no time to waste.

Thank you for your consideration.

Sincerely,
Kathryn O'Leary

Belgrade, MT 59714