## ES-12 Comments Recommendation 24

# GHG reduction in refinery operations, including in future coal-to-liquids refineries

The economic impacts of any legislation must be determined and be a part of the decision.

Government meddling/incentives rarely result in progress. Montana should be working to remove barriers to progress not impeding them by adding bureaucracy that adds no value to the end product. Furthermore, this report was based on a politically correct directive which assumes there is a man-made climate crisis. While this assumption has the backing of the media and politicians it has little support from the scientific community. Hence the reporting by the media of the relative minority that support the theory. Technology should be able to stand on its own merits without government incentives.

Coal in its present form seems to be a huge problem in generation and storage. What can be done to eliminate much of the CO2?

Until we know more about the long term storage of CO2 we need to approach this cautiously.

Not clear if you proposing only new or trying to retrofit everything.

There should be a cost/benefit analysis required. The benefits do not justify the costs using sound science. More taxes, regulations and red tape is not what will help Montana.

Depends on the cost. I don't have time to fill out the rest of the suvey, but I think my theme is evident by now.

How does the storage of CO2 work? What kind of environmental effects could it have? Doesn't coal to liquid require vast amounts of water? Where will the water come from? Need to be aware of all of the environmental impacts.

What we need is to produce more refineries and CTL fuels......if I believed that this was going to actually encourage [in the dictionary sense of the word encourage] that then I would support this too.

I don't believe that coal to liquid fuels should be done at all unless it results in less total CO2 emissions that direct petroleum use.

Nope, land is too valuable. Beyond carbon issues, global warming, land and topsoil invaluable. No more reclamation, no more degradation of subsoil and underground water rights. And besides companies don't have to use BAC when upgrading existing facilities. No more coal production facilities. Our government has not shown a seriousness towards renewables and efficiency.

We have to get off foreign oil.

leave coal in the ground

Not possibly includiong CO2 capture- rather absolutely requiring complete capture of CO2 in any and all coal projects from this day forward.

Let the feds lead. Let the nation speak with one voice.

If this is a health issue, then make sure they are protecting public health.

I have doubts whether any 'Coal to Liquids' scheme is progress in preventing climate change.

I don't support Coal to Liquids. We need to stop using fossil fuels all together.

I do not support CTL.

NO COAL!!!

http://www.architecture2030.org/faceit/webcast.php http://gristmill.grist.org/story/2007/3/5/155252/7171

We should stay away from coal! there is too much risk and too many unknowns regarding carbon sequestration related to coal to liquids

I do not support increased use of coal to liquids over renewable energy, but if it is necessary, we must reduce the amount of CO2 emitted from it.

How can you set performance standards when nobody has even built one of these at this altitude and climate?

individuals can only do so much with this issue, we need strong and numerous government action of many forms and formats...

I believe the (energy) cost of producing these products needs to be reduced to make it a viable alternative Adoption of this first state in the nation policy is basically telling this emerging technology that Montana is not interested, "go build it somewhere else". Oh, and if you do build it somewhere else Montana is not interested in importing your product.

This is a moving target.

Look to the UN-intended consequences. Let the market do it's job. Like most government involvement in an issue, it is well intentioned, but will ultimately make the situation more cumbersome and expensive.

I do not think ctl refineries are as green as renewable energy. It will still produce co2 which even if stored can escape sequestration.

They'll fight it to the end. They don't care about people or the world: they care about money.

build more refineries. there has not been a refinery built since the 70s. because of these type rules

I'm glad to see technology like this in the plan. I support home projects as well, but work is needed on many fronts. It's apparent, of course, that the CCAC is well aware of this.

I am leary of coal-to-liquids operations.

I am against coal to liquid facilities. They are wrong headed and inefficient.

Coal to liquids technology is a bad idea. Leave the coal in the ground.

Clean Coal is an oxymoron!

I'm generally opposed to any technology that continues to perpetuate our dependence on fossil fuels, but am in favor of any legislation that places stringent pollution requirements on any use to such technologies, as long as the requirements are actually strongly enforced, and not just given political lip service.

Coal is not the right direction. We do not have the technology to ensure CO2 will not re-enter the atmosphere in our great-grand children's lifetimes. Performance standards for any energy production should be rigorous.

I do NOT like the governors coal to jet fuel idea! Here we would end up with private rich ass holes and the military but not be able to drive to work! What a neat idea!

Most cost-effective technology, not best available technology if it is not cost efficient.

Coal to liquid is a bad idea we need to find and promote better technology.

Coal to liquid requires too much water. Nix this idea.

Down rated because of the idiocy of CTL in the first place but it should sure have standards

We should not develop coal to liquids - there are more issues than just GHG -also water use during production and the extractive process.

While I'm glad to see encouragement for liquid coal, it is important to be aware of how much water this process uses. Water is, and most likely, will become increasingly scarce in many areas of Montana in decades to come.

Sorry, but CTL is just stupid. Fossil fuels, regardless of the means of production, should be the absolute last resort. All this planet needs is another monster-coal consuming nation like China. One is enough! Sell MT's coal to China and stop trying to pretend coal can ever be a high tech/clean fuel. Fossil fuel is NOT the future. Dig it up here if you must but don't burn it here. Stupid.

setting standards is arbitrary and capricious.

Absolutely not. We need to rid ourselves of fossil fuels.

I think we should invest in other energy sources, besides coal, that are renewable and less polluting.

is is possible???

We must do this if we're to develop more coal.

Montana should not take the lead. This needs to be done uniformly throughout the country. If we do it on our own we won't need to worry about facilities in this state. There won't be any.

If this means let the utility/gas companies begin this program, I'm for it. If you mean having the state oversee and run it, I'm against it

Again, focusing on more of same problem. We have a lot of coal in MT, but that means we also have a LOT of Earth-damaging potential. Let's be part of solution rather than problem. Don't legislate......work with the industry....

I don't support the creation of Coal to liquids facilities at all as CTL is not an improvement over traditional methods of production.

really must look holistically at all impacts, both positive and negative, for all energy production

These facilities should remain in Montana to benefit our economy

Not in favor of using coal. Until or unless it can be done with 0% carbon emission, which seems a very far goal. other renewable power sources are better.

this is only an interim fix-we need to get away from the idea of burning stuff altogether for our energy and transportation needs

I'm not sure about the coal to liquid process in general.

coal to liquids is acrock of feces it is the last thing to do to produce fuel

Despite the obvious abundance of coal in Montana, i do not support coal as an energy source.

If it is even viable and not another political game of bull before the facts are provided like biofuels. I was reading of the problems two years ago. The press only picked it up after huge bucks were dumped in to satisfy politicians and big business movers and shakers. Taxpayers and the environment lose again.

This looks too weak, i.e., too 'dirty' to me. I'm not convinced that implementation of this technology will lead to cleaner emissions without stronger language.

This is a good idea as long as it is administered properely. When you say "best available" you may be creating an untenable situation because it may be available but not commerically viable. That can have a lot of unfortunate and unforseen consequences.

Need Governor's support here.

Why just "possibly including capture and storage of CO2"?

Coa-to-liquids is a long term loser in energy use. The balance sheet will be to increased fuel usage rather than less.

Studies show that there is zero climate benefit to such investments.

I am opposed to setting performance standards for such facilities.

Definitely (not possibly) include capture and storage of CO2 in any standard. Coal-to-liquids technology requires large amounts of water, over which different sectors in Montana already compete. Is this the best use of our limited water resources?

You need to question the need for this source of energy in an atmosphere of the need for substantial short term progress.

A voluntary industry-government group could discuss feasible standards - purely voluntary NO COAL TO LIQUID PLANTS if there must be set a very high standard

I'd prefer we get away from fossil fuel usage as quick as possible.

This technology is worrisome and is not fully understood. I would not like to see this technology adopted at this time.

#### **MORE**

This requires a LOT OF WATER! Maybe Montana is not the place for it. If implemented then we MUST capture the CO2

This will raise costs to consumers...NO, NO, NO

Again can't we do better that 20 to 30%?

I think it's fine but the goals should be set lower than 20-30% below (why Not 50-75%)?

Market place will take us here if necessary when the proper cost/benefit ratio is obtained.

We need to move away form coal. I do not support my tax dollars being used to fund this sort of operation!!

I don't believe this is necessary at this time.

Best available does not always mean most practicable or even affordable. Best available can be obstructionist and prohibitive. And, often is.

Not until I know more specifics. Too many pie in the sky proposals that take attention away from conserving energy and using renewable sources. (Coal and wood are NOT renewable.)

better yet eliminate all production of fuels, that would make the greeney happy, I only wish they would stop driving, stop eating, stop wearing clothes, stop breathing, because every thing comes from the grown.

The real reason for politically motivated theories such as these is to usurp more power and control over the public.

Renewables over new refineries

Snake oil. This is like Montana investing in a space port. One of the looniest ideas ever. The national synfuels corporation died in the 1970s. Why are we digging up this cadaver?

I think we should encourage coal to liquid technology. i think it should be as clean as possible but should be feasible (not cost prohibitive). Montana has lots of coal-lets figure out a way to use it (conversion into diesel or hydrogen). Incentive to build plants, not dis-incentives.

Forget Coal!! Lets focus on new clean technology!

I do not support continued coal mining or use at all. It is obsolete in today's world.

Best Available has proved itself disasstrous.

This Action Plan was not a Montana grassroots Plan. It was the same plan written for California and other states. Montana's poor and middle class cannot pay any more for energy.

http://www.rightalk.com/asx/ggws.asx

The above video destroys the myth of human caused global warming. Get informed. The truth shall make you free.

Unfunded mandates cost consumers. Capture and storage of CO2 continues to be brought up with no cost analysis to the consumer.

Coal to Liquids Refineries sound like a good Idea. But since it take energy to change coal to liquid, how much? since the new produce as a basic energy output, will its new energy output per ton of coal be great then the energy output of the original ton of coal? I do not have that answer but I doubt it. But consider that when liquid fuels are burn they produce the same CO2 as do there natural counterparts.

Restrict the standards to the point that it is not feasible to do business in Montana.

Only good with incentives, not permits or legislation.

We need to cut out coal completely

What's the price tag?

NOt convinced is necessary.

Coal to liquids is too water intensive -- not a viable option

At least look at doing it and determine the cost of such a plan.

Agree, but this is a pipe dream, won't happen in my lifetime

Coal to liquid processes that are viable are already being pursued. Those that aren't shouldn't because of regulation that may drive up the cost.

Do not sink any public funds in Coal to liquid technology.. it is too costly and avoids the issue and carbon sequestration is not safe and can't be made so.

I think we need to move away from coal completely.

Coal should be a last resort behind renewable energies, but it should be the cleanest possible.

Seems like a way to keep coal development in Montana from really happening. Again, let's really understand the value something like this in Montana will have on climate change before we do this. There has got to be a way to encourage responsible coal development. This seems like more of a barrier. I don't like the idea of CO2 storage. Let's encourage ways to capture and reuse it.

It's a great idea if its possible.

Standards need to be driven by technology, not technology driven by standards

Just tell all new power producers & refineries to go to Wyoming or North Dakota, but please give our kids a job.

Existing standards are adequate!!!!!!

Carbon sequestration is not economically or technically feasible. Thus, I do not support CTL power. The facilities in South Africa that use this technology are the largest emitters of CO2 in the WORLD.

conservation and renewables, NOT further investment in fossil fuels

don't promote this technology unless it is proven. don't build coal powered energy facilities

Set standards for current coal, but NO NEW development of coal.

Do not support storage of CO2. Long term outcome not known nor identified.

We should not do any coal to liquids, period.

Requiring Carbon sequestration on coal to liquids would extremenly discourage further development of that technology in Montana. We have lots of coal and Montana can benefit from it if we encourage the development of this technology and not discourage it.

Was this intended to apply to existing refineries?

I would like to see a change from the use of Coal power plants. It is so polluting and Sequestration impossible to implement over long periods of time (5 years!). We have to find alternatives and not see more Coal plants as an option. Still, we need to improve the existing Coal plants for now as best we can with technology available.

No more coal plants. Leave it in the ground.

We should stop be moving towards stopping the use of coal and oil not trying to make it "clean".

As Coal Gasification is a new technology, with no full scale plants currently in operation, how can we properly regulate them? From what I have studied of the process, the GHG emissions of a coal-to-liquid refinery is the least of my worries compared to some of the other outputs of such a facility.

For now, there is enthusiasm for coal that runs risk of being irrational. To the extent that conservatism is prudence and caution, Montana should be very conservative in planning generation and production based on coal.

raises cost

possible, no, absolute

I'm fairly ambivalent re: coal to liquids; again, lets develop renewables and conserve instead.

This technology should not be pursued until demonstrations of effectiveness can be made.

Carbon dioxide capture is not required. Carbon dioxide in not a pollutant. In fact, carbon dioxide is key component for plant growth. No carbon dioxide, no plant growth. No plant growth, no animal life, including humans.

CO2 does not need to be stored and the private sector can fund this themselves.

As long as the percentages not unattainable or taxes on industry do not go up.

Sounds like a good idea. You're not trying to force something unattainable on plants in existence, but looking to the future, before they're built, when something can be done.

This is H2O intensive too, please make sure there are good water standards too.

High standards for Montana will simply mean that such plants get built in Wyoming.

At least! Why not 40 - 60%?

I strongly oppose any new coal plants, including coal to liquids plants. Let's focus all our energies on solar, wind, and geothermal.

There should be no Coal to Liquids refineries.... anywhere.

Urgently needed

Needs to be national rules, not state.

CTL is still unproven to be a cost viable alternative.

Coal liquification is still something that needs a lot of debate and more information to educate the public. I don't support any new steps taken in that realm currently.

Must be coupled with standards on other kinds of pollution (e.g., arsenic)

Development of C0-Generation Electric facilities at each one of the current MT refineries and at the Sugar refineries!!

Scientific theories on global warming do not warrant new taxes or legislation. Need additional analysis to understand impact on consumers and penalties on business development.

Don't support coal to liquide at all

No new coal fired refineries and reduce emissions 50% or more by 2020

hmm, coal is okay, but lost of problems.

Are you trying to ruin the economy of Montana? It ain't so great now!

This recommendation will likely lead to increased costs to consumers and should be analyzed to determine total cost to consumers.

Way too costly.

We must get away from Coal! Even the "cleanest" coal to liquid technology does not equal wind power. Wind is where new R and D needs to be! Given that complete abandonment of coal based energy is unrealistic, I support the efforts to make it cleaner and more efficient. Not nearly enough GHG emissions reduction.

Coal use needs to be immediately deemphasized, it is not worth the risk to use more advanced and untested technologies that could leave us worse off when reduction options are cheaper and have less uncertainties about them.

This does not make any sense at all. Before alternative energy sources are implanted, and with the nationwide crunch on oil, government would reduce the refinery operations. America is on alert for a world that no other thought than to conqure america and government wants to reduce the nations ability to defend itself! I'm sorry, but I have pledged my alegiance to America ... not to th dgovernor of the State of Montana!

CTL is government pork and the least cost effective and slowest solution

This is already being regulated by the State with poor results, we don't need more regulation on it.

Get going on the coal, THEN go back and set the standards.

All of these are 'feel good' expensive bulls\*\*t legislation. Global warming is NOT a fact (cold records set last winter in the southern hemisphere) so it might be Northern hemisphere warming, but not global. Secondly, latest studies of the sun spots (that control global temperatures more than humans) indicate that within 20 years we will be back in a 'mini-ice age'. Not politically correct, but MUCH more accurate.

Standards need to be set within reason

See earlier comment regarding caution of use of carbon sequestration.

CTL must include CO2 capture and storage to even be close to as clean as conventional fuel refining!

Forget the CO2. It does no harm. Climate changes occur continually irrespective of slight variations in percentages of CO2. It is insignificant component of air anyway. .03%

Coal is NOT the answer!

Once again, Fidel raises his ugly head. Performance standards are simply regulation. Sure its worked in the past.....for people employed by the government.

NO!!! NO>>>MORE>>>COAL! Out of the question. Invest in renewables.

MAN-MADE GLOBAL WARMING IS BASED ON JUNK SCIENCE.PLEASE DO THE RESEARCH AND DON'T STEAL FROM THE PUBLIC THAT YOU ARE SUPPOSED TO REPRESENT!

Where would the costs of this be born?

If these standards can't be followed I am against use of coal, for the most part, as a prime energy resource.

There should never be a coal to liquids facility.

We should move away from using coal, a fossil fuel, asap.

Oh, why not?

Coal-to-Liquids is tough. Very, very expensive, uses up lots of resources to make the plant. Still end up with CO2 and toxic metals etc. Our governor is putting too much emphasis on coal-to-liquids. Coal is so dirty. The technology to "clean" coal has a long way to go.

Be careful here kids-CTL is a potential mess, as you know!!

cost, who will pay?

Carbon capture should be required for coal to liquids so as to prevent an overall increase in carbon dioxide emissions over conventional diesel fuel. Some consideration should be given to the total greenhouse gas contribution of mining and transporting of the coal used in a CTL process.

Strict rules should be enforced if this type of plant is constructed. Montana already has too many environmental disasters - we don't need another !We can wait until there is a definite clean method.

I do not support coal to liquids as a source of energy due to my environmental concerns.

Need to require that use of coal be at least as efficient in terms of CO2 as oil.

We currently have petroleum alternatives with zero GHG emissions, CTL is a step in the wrong direction.

less gas, less energy, less state soverinity... are there any good sides to this proposal?

Montana should encourage CTL refineries. But why set the bar so high that no company will want to loate here even with the vast coal deposits.

GHG reduction must be more agressively attacked.

i am not convinced about the further use of coal

Coal is likely to make the mess worse, not better. The amount of carbon generated with carbon is huge. Our goal should be to find solutions that fix our current problems without creating new ones.

First, creating liquid fuel from coal creates very high CO2 emissions compared to liquid fuel produced from petroleum, so it should be avoided. But, if development of liquid fuels from coal is inevitable, then we better work on reducing the emissions!

Coal to liquids uses 5 gallons to 15 gallons of water to produce one gallon of diesel. Sassol plant had to use natural gas to decrease emissions. Better off to use biodiesel made from oilseeds then going with coal to liquids.

Establish time frame.

This recommendation will likely lead to increased costs to consumers and should be analyzed to determine total cost to consumers.

Set standards? We don't even know what works, if anything. Arbitrary and capricious.

If economics make sense it will be done without State interferance.

CTL is an inherently dirtier form of fuel conversion. There are no clean technologies available and the cost of r&d would be better spent on clean alternatives.

This will be done when it is economical to do, and should not be subsidized. Free markets are the best way for honest competition.

Laughable concept...real science indicates capturing CO2 is meaningless.

Must capture all of the CO2

I do not think coal to liquids is a good idea.

% should be higher!

I'm very concerned about the use of coal. Not sure if it can ever be "green".

I think there's a lot of work going on, to achieve this goal.

Again, this technology should be phased out and discouraged. We should set a deadline soon that will phase out this technology.

THIS IS NOT THE WAY TO SUCCESS. LEAVE THE COAL IN THE GROUND! PUT MONEY INTO CONSERVATION AND RENEWABLES, NOT FOSSIL FUELS.

Free markets will be most efficent.

Avoid over regulating this! Wyoming has a lot less coal than MT, but sells a lot more. If we don't hurry up to develop our coal resources, China will come and do it for us (and not care much about our environment or human rights when they do.)

This is horrible technology

as long as the standards are attainable and cost effictave

I don't support C-T-L as I believe it's energy inefficient but if it's going to happen, there must be high standards for GHG reduction.

I don't believe coal-to-liquid refineries are necessary. And again, burying carbon is a wrong-headed approach.

Do not waste resources on coal to liquids - there are too many deleterious environmental side effects in all aspects of this process.

PLEASE! no more reliance on coal!!!!I am 100% against anything that will encourage so-called "clean coal" or encourage further development of any fossil fuels (thus, continued reliance on fossil fuels). I believe the solution lies mostly in incentives for and research on REDUCING our reliance on energy in the first place. FIRST conservation, SECOND use renewable energy sources and only as a last resort -- in desperate times -- fossil fuels. I know this is an extreme point of view, but I truly believe that if the marketplace and the government gets behind conservation efforts !!)% - then the people will follow -- and that for the energy we do still require, if renewable energy sources were readily available, affordable and understandable -- in fact, de rigeur -- that people will embrace these technologies. Let's just say goodbye to our addiction to fossil fuels!

#### ANOTHER FINANCIAL DRAG THAT WILL END UP ON THE CONSUMERS DOORSTEP---

Would be nice, but the technology is not yet available, so let's focus on alternative energy for now.

The argument against will be that it is too expensive. If we have a coalition of states demanding this technology business will find the answers.

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

But so far I am against coal to liquid technology

We need to get off of coal dependency. Now. There is so much prospective power from renewables, there is no reason to remain on coal, in any form. It does not even help the economy. No reason. I will not vote for re-election of the governor if he continues to support coal.

should be national

We have a lot to learn about CTL - lets get the right people at the table before running off on this one.

How can performance standards be set until we actually have a coal to liquids facility in this country and learn from that experience.

Although we will need to set standards for this industry, let's not get ahead of everyone else. This is an emerging technology that could greatly benefit Montana's economy. We do not want to tell them "no way, go away" before they even get started.

Coal is not the answer it is the problem.

I don't favor coal to liquid as a principal strategy.

w/teeth

Coal to liquid fuels is not a good use of our time or research dollars. Let us move on!

We should get away from coal ASAP

there is climate change. But mans impact is limited. Maybe as little as less than 3-5% need cost benefit analysis

CTL is no better than traditional refining without the proper technologies applied.

No new development of coal. Not coal-to-liquid or any other technology. We need to focus on non-fossil fuel energy sources. Current refinery operatios should reduce GHG.

I have not seen a very good capture program.

The lack of water in Montana strongly argues against any CTL facilties ever being sited here.

not possibly, but do include capture and storage of CO2

I am not a supporter of coal. I think that there are other, more sustainable methods that need to be given attention first.

### BEST AVAILABLE TECHNOLOGY!!!!!

Has this technology been perfected? If not perfected, don't use it.

What about Brian's ideas?

Support performance standards, but not so sure about Coal to Liquids technology.

Encourage new energy developments to conform to the latest green standards. If they are no better than the former programs, why do them.

So we use energy and produce CO2 to nake the liquids that we burn and make more CO2. Why not just burn the stuff at maximum efficiency to make electricity. Do that calculation an without the control technology see which is more efficient. This is not about GHGs, it is about energy dependancy.

Coal to Liquids needs stringent standards to ensure that CO2 is captured and controlled. These technologies are all far in the future and unrealistic. This should not be a priority.

I do not support CTL--we need to focus on RENEWABLES!

Yes, or let's not do CTL at all.