



## A Discussion with Governor Brian Schweitzer

Posted by [Stuart Staniford](#) on October 18, 2005 - 2:24am

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Earlier today I participated in a conference call with [Governor Brian Schweitzer](#) of Montana. You'll recall that we previously discussed his plan to convert lots of [Montana coal to liquids](#) (and [again here](#)). This conference call was at the behest of the Democratic Governors Association, who are organizing a series of calls between Democratic governors and bloggers - and they invited the Oil Drum. Five bloggers showed up, listened to the governor's spiel, and then got to ask a few questions. Here are my impressions.

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The governor comes across as energetic, talented, blunt-spoken, combative, dedicated, and able to suffer people who disagree with him only with some effort. He talks freely and fluidly on energy issues, and he started off the call with a thirty minute discourse outlining his views on what the US needs to do, and what Montana is or could be doing to help. He's a new governor, only took office in January, but has focussed on energy issues a lot. (One of his campaign promises was to hold an [Energy Symposium](#), which starts tomorrow).

He outlined his energy achievements as he sees them:

- Fulfilling a [campaign promise](#) to get legislation requiring 10% of Montana's electricity from wind by 2010 (he says Montana has the most wind resource of any state in the nation). One [wind farm recently opened](#), and he says five more projects are in the pipeline.
- Pushing [ethanol in Montana's gasoline](#). In fact [legislation mandating 10% ethanol](#), has [passed](#). He's a big fan of biofuels, as he thinks Montana could grow a lot of [Camelina](#), an oilseed brassica, in Eastern parts of the state that are close to desert conditions, and use it to make biodiesel.
- Pushed for an [insertion of a loan guarantee](#) for a coal-to-liquids plant in the recent energy bill.

The governor spent a good deal of his time on coal-to-liquids. Montana, he asserts, has 120 billion tons of coal reserves, about a third of the US total. The US has far more coal than Russia (the second largest reserves), which is far ahead again of China and India (which also have big reserves). As we noted earlier, he thinks they should be developed rather than giving the money to "Sheikhs and rats" around the world, who then turn around and fund radical Islam, including Hamas and ultimately Al-Qaeda. He also mentioned several times doing "what is important to maintain our way of life." He sees CTL as a "bridge to the next fuel source" that we cannot afford to do without. He feels strongly that just conserving and trying to move directly to a renewables/hydrogen economy will not be feasible - we'll end up still needing to import lots of oil from regimes we should not be supporting.

He didn't talk about peak oil much. He frames the issue mainly in terms of energy independence.

He, like us, has noted the wonderful national leadership on these issues:

If you're looking to Congress to lead, forget about it. This is the best Congress money can buy. There's enough money in big oil to buy Congress for years into the future.

He tried to proactively address possible objections before we could raise them. He emphasized that in CTL it's much easier to clean the heavy metals and sulphur out of the syngas than it is to prevent these emissions when burning coal directly. He emphasized the importance of sequestering CO<sub>2</sub> at the CTL plants to avoid emitting it to the atmosphere - Montana is blessed, he feels, with geological traps for the purpose - some with left-over oil in need of tertiary recovery, and some empty ones for good measure. Yes, this involves strip-mining coal, but they have had lots of practice restoring the land. There's solid waste, but at least we'll be able to sequester it all in one place (and I guess he's offering his state for the purpose). He has now developed something of a story on the hydrogen input to the process. Recall that we had a [good comment stream](#) calling the governor on his [earlier claim that new CTL processes didn't require water](#):

Water needs, traditionally an enormous hurdle, have been all but eliminated with the advent of a process that actually produces water with its excess hydrogen and oxygen.

This is impossible, of course, since coal is mainly carbon, and since chain hydrocarbons are roughly (CH<sub>2</sub>)<sup>n</sup>, the hydrogen has to come from somewhere, with the only likely bulk sources of hydrogen being water or natural gas. What he now says ("get out your calculators, cowboys") is that the lignite coal in Montana contains typically 40% water (by weight? - he didn't specify), and thus has enough hydrogen, together with other unspecified water sources "colocated with the coal", that we shouldn't worry.

In general, he agrees that environmental questions are "fair game", and that these projects should be held to high environmental standards.

One thing I had a problem with was the carbon emission/climate change angle on this. I don't think the governor was untruthful, but I do think he's engaging in a certain amount of misdirection when he talks at great length about the importance of, and the possibilities for, sequestering the CO<sub>2</sub> from the CTL plants themselves. A high-yield Fischer-Tropsch type process should be taking most of that carbon currently buried in the ground and wrapping it in hydrogen to put in your and my fuel tank, and those of our trucker friends. Yes, some C will probably be burned to CO<sub>2</sub> at the plant to power the process, and hopefully Gov. Schweitzer will be as good as his word about sequestering it, but a good deal is going to end up going out of our collective exhaust pipe rather than staying where it is now.

I used my questions to press the governor on this point. I'm of the opinion that we face a dual crisis here: we are reaching the point where we can see the end of oil, and at the same time, we are reaching the point where we can see that we are starting to make massive, probably irreversible, changes to our climate. The [glaciers are in full retreat](#) almost everywhere, the [Arctic is melting](#) (with total melting of the summer sea ice possible, though not certain, [as early as 2020](#)), the [permafrost is melting](#), and releasing large amounts of methane, which is a [very powerful global warming gas](#), while in the last thirty years, [droughts have doubled](#) due to warming, hurricanes are [much more intense all over the globe](#), and are showing up in places they [never did before in recorded history](#). Scientists have been [projecting changes in ocean circulation](#), and lo-and-behold, [they are starting to show up](#), including [changes to the North Atlantic](#)

[Circulation](#), although major change here was [previously thought unlikely this century](#). There is some possibility of changes in deepwater circulation [destabilizing methane hydrates in the ocean](#), particularly in [South East Asian deeps](#). Oh, and the Greenland ice sheet is now [melting much faster than climatologists expected](#), and the West Antarctic ice sheet is [starting to collapse](#), though again, [this was previously thought unlikely](#). Also paleoclimatological studies have made it clear that in the past the climate [abruptly flipped between modes](#), sometimes with dramatic change in [as little as three years](#). And we are making [rapid changes in carbon dioxide](#), known to be critically important in regulating the temperature of this sensitive climatic system for [a century now](#).

Ok, maybe there's some scientific doubt still on any individual piece of the picture, but the gestalt is starting to look extremely alarming - positive feedback loops are entering the picture and making everything go faster than expected. I don't know about you, but this is all starting to seem like a serious threat to my kids, never mind my grandkids. So how many more decades of cheap hydrocarbon fuel use should we sign up for here? How cheap is our cheap gas going to be really, in the end? How much of that Montana coal should end up in the atmosphere, exactly?

The governor doesn't really have a great answer on this one. He agrees that some of his Montana coal will end up going out vehicle tailpipes under his plan, and he agrees that climate change is a big issue. He feels we need to move to a hydrogen/renewables economy in the long term. But he notes that this is not a problem Montana can solve alone; it needs national leadership which is utterly absent at present, and in any case we are going to have to have some bridge fuel to get us there.

Kari Chisholm at [Western Democrat](#) asked what are the barriers to a CTL plant. The governor discussed the fact that although such plants are thought to be profitable as long as oil prices stay above \$35-\$42, they are very capital intensive and perceived as risky as long as few have been done in the US. (Apparently 12 are under way in China, and there is one little one [operating in North Dakota](#)). Thus the governor feels federal loan guarantees will help, and that is now secured courtesy of the recent federal energy bill.

Scott Shields of [MyDD](#) asked about the timeline. The governor's view is it will take a couple of years to permit a coal mine in Montana, and three to four years to build a CTL plant. So he thinks 5-6 years minimum before a first such plant could be operating.

One particularly interesting part of the conversation arose when Scott Shields asked what the governor thought would happen to Saudi Arabia if indeed the US achieved energy independence. Since the governor spent six or seven years living in Saudi Arabia in the eighties (installing irrigation systems - he trained as an agronomist and has worked in agriculture most of his life until he got into politics) his views seemed relevant. He outlined how hardline and conservative the Saudi Wahhabists are, and then said:

There will be a revolution in Saudia Arabia, it will be sooner rather than later, and when it happens, the people who take it over are going to make the people who run Iran look like a bunch of liberals.

I bet we'd be able to see that event good and strong even on a [Hubbert linearization](#) of Saudi oil production.

Other bloggers present:

- [Kari Chisholm at Western Democrat](#) (also crossposted at [Blue Oregon](#)).

- [Matt Singer at Left in the West](#)
- Scott Shields of [MyDD](#) was there but doesn't seem to have written on it (yet anyway).
- Ditto Brian Hopkins of [Dem Bloggers](#)



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