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Chairman Baucus and Ranking Member Grassley—a very sincere thanks for inviting me to address this important committee and allowing me the opportunity to share my ideas about America's energy future. I can't conceive of a more pressing issue for the country, and appreciate the Senate Finance Committee sharing that concern.

As Governor of the State of Montana I have been very aggressive in positioning the state to assist in helping the country address energy independence while capitalizing on emerging energy markets. This includes promoting renewable energy development and conservation, as well as the development of coal-to-liquids facilities as a bridge to new, sustainable energy development. During the last two years Montana has adopted new energy policies and completed and announced an amazing array of energy projects—from wind farms to refinery upgrades to interstate transmission projects to coal gasification and liquefaction plants.

The context for my efforts to develop domestic energy can be found halfway across the globe. If you look at a map of the Middle East, and place at the center of it the country of Kuwait, you can see that this tiny country is the most strategic place in the region, and possibly on the entire planet. A circle around Kuwait with a radius of 1,000 nautical miles encompasses or touches upon Russia, Turkey, Kazakhstan, Uzbekistan, Turkmenistan, Afghanistan, Pakistan, Iran, Saudi Arabia, the Emirates, and Egypt, and all of it is accessible on the ground.

As a comparison, place tiny Kuwait in Kansas, and draw that same 1,000-mile circle. It reaches well into both Manitoba and Mexico, and into California and the Carolinas. We could indeed move massive military or other resources to any of these places—thousands of troops, along with tanks and humvees, on the ground. How long would it take? Thirty-six hours? Forty-eight? The scenario is the same for logistical movements from the center of the circle at Kuwait.

I lived in Saudi Arabia for a half-dozen years, developing large irrigation projects from the Iraqi border to the Yemeni border. While there, I had a chance to observe Iran's situation in the Gulf. The oil in the region floats on supertankers through the Strait of Hormuz, which at its narrowest point is 20 or 30 miles wide. So Iran, at a time of its choosing, can stop as much as 20% of the world's oil supply from getting to Asia, Europe and North America. Even though only about 17% of U.S. oil comes from the Middle East, the effect of such an act would be devastating. It is conceivable that the price of oil could move rapidly from $100 to $200 to $300 a barrel, and gasoline could move from $4 to $8 to $12 a gallon.

That is why our troops, unless we develop alternatives, will be in Kuwait for the rest of our lives, and until the end of our children's lives. Consider that we still have 30,000 troops in Korea, 50 years after that war, because it is a strategic location. We still have thousands of troops in Central Europe, 60 years after WWII, for the same reason.

In the last two years, Montana was one of only two states in the nation to appreciably increase its oil production, and we will increase it again this year. I hope that can continue for some time, but our nation's dependence on foreign oil ensures that we will be involved not only in the Middle East, but also in places like Venezuela, Nigeria, and Angola. It demands that we continue to send our soldiers—and their children, and their grandchildren—into harm's way, to ensure that we have boots on the ground for the protection of our strategic interests.

Americans use 6.5 billion barrels of oil each year. We only produce 2.5 billion barrels ourselves. We import 4 billion from some of the world's most unstable regions. America needs a plan to get out of this mess.

We can save 1 billion barrels of oil a year through conservation—things like more efficient cars, homes, businesses, and appliances. We've done this before. We reduced our energy use by a similar percentage during the oil crisis of the late 1970's, when President Carter asked us to sacrifice. During the period from 1975 to 1983, we decreased our consumption of oil by 17%, while we grew our economy by 27%. Through informed consumers and the use of existing technology, we can do it again. That leaves us with a 3 billion barrel a year deficit to conquer.

Another part of the solution is biofuels. A year ago, in his State of the Union address, President Bush recognized our addiction to oil. In his address to the nation just a few weeks ago, he talked about conservation and alternative fuels, and of setting a goal of producing 35 billion gallons of ethanol by 2017. That's almost a billion barrels—about 15% of our entire annual consumption of petroleum. I'm an agronomist by training, so over the last few years I've been crunching the numbers on biofuels.

I do think we can produce a billion barrels of biofuels, but they won't be just ethanol. Some of the biofuels we produce will be biodiesel from crops like canola, safflower, soybeans, and camelina, which is my personal favorite, because it is particularly well-suited to Montana's arid climate. And the net energy ratio of biodiesel is more favorable than with ethanol.

So after we produce a billion barrels a year of biofuels and add it to the billion barrels gained through conservation, our 4 billion barrel oil deficit has been reduced to 2 billion barrels a year.

What do we do to cover that remaining 2 billion barrels? In Montana we have a lot of coal—as much as 120 billion tons of it. That is 28% of the nation's reserves, and 8% of the world's coal, just in Montana. It is located close to the surface, and it represents some of the least expensive BTU's available in the world. Over a year ago representatives from Sasol, the South African coal liquefaction giant, came to visit. We toured Montana's coal country.

On maps and from the air, I was able to show them our resources and infrastructure: our three varieties of coal; oil and gas resources; oil shale; railroads; transmission lines; pipelines, and so on. Especially notable were the two significant oil fields in Montana, where they eagerly await carbon dioxide for enhanced oil recovery. As I told Sasol about our great work force and our work ethic, and pointed out the distant towns and trade centers from the air, I mentioned that a facility built in this part of Montana is a very safe asset—we don't have hurricanes or major tornadoes or earthquakes. That was in August, just before Hurricane Katrina hit and reminded us all of the importance of safe geography.

I informed Sasol that Montana has the greatest crack spread for fuels. All three of the oil refineries in Billings, Montana are some of the most profitable in the country for their parent companies, because the value of the crude oil they buy is low and the value of the refined product is high.

When I began to talk about the numbers related to coal, these representatives thought I was off by a factor of ten. I then repeated that the lignite was indeed worth about 18 cents a ton in the ground, and about $4.50 a ton mined. They didn't seem convinced, but then we flew down to Colstrip, Montana. It really is one of the most impressive coal developments in the world. And they were impressed. We landed and showed them the value of this sub bituminous coal, the way we mine it, the way we reclaim it, and the four coal-fired plants where we generate electricity, mostly for export from the state. Sasol became intrigued.

Since then, plants have been announced. At the Bull Mountain Mine near Roundup, Montana, a partnership involving Arch Coal, the 2nd largest coal company in America, has said they are going to develop a 300 megawatt IGCC power plant and a 20,000 barrel a day coal-to-diesel plant. It will be a $2 billion project. Peabody Energy, the world's largest private coal company, and the technology company Rentech have agreed to move forward to assess the feasibility of a coal-to-liquids facility at the Big Sky Mine near Colstrip.

But America is not going to develop coal in Montana or in other parts of the country if we continue the ways of the past. Development of coal the way we have in the past simply won't be financable in the future. That is because, as a nation, we are finally coming to grips with the risks of climate change.

We need to use better ways of extracting energy from coal, and put the carbon back into the earth where it came from. To do so, we need to perfect geologic sequestration of carbon dioxide. We must identify geologic structures where we can store great quantities of carbon dioxide. In Montana, we have what we call the Big Sky Sequestration Partnership at Montana State University, working with the Department of Energy. We have identified some of these geologic zones, but there is much more work to be done. We need measuring devices and monitoring protocols, and we need to work out liability provisions. We clearly cannot be doing this haphazardly.

Back to our 4 billion barrel oil deficit. A billion barrels a year can be met through conservation and efficiency, and another billion from biofuels. It is my hope that Americans can produce the final 2 billion barrels a year from our enormous coal reserves—developing a clean-burning fuel for about $1.20 a gallon. We could do this, and over the next thirty years only touch a small fraction of our domestic coal reserves.

Beyond the challenge of imported oil and its impact on our foreign policy and the lives of our young soldier heroes, we face a challenge in producing enough electricity to meet our growing demand—and doing so in a way that does not contribute further to global warming. Part of the solution is in wind power generation. In Montana, we have class 4, 5, 6, and 7 wind—first in the nation in those combined categories. So we have some of the most robust wind potential in America, but only in the last two years has significant wind power development occurred in Montana. Over $300 million has been invested in wind power recently, but in just the projects now proposed there will be another billion dollars invested in Montana wind energy over the next few years.

Wind power must become a more significant part of our energy portfolio in this country. But the wind does not blow all the time and backup power sources are needed to ensure transmission system stability. It's impossible to use wind power as a significant source of new electrical energy to supply growing markets like California, southern Nevada, and Arizona unless we have additional transmission capacity. Without it, we won't be able to use wind power for much more than 15% of our portfolio.

So I am excited that TransCanada's proposed Northern Lights project is moving forward with a 3500MW DC transmission line. It will originate in Montana, and deliver clean and green electricity to the Southwestern U.S. In addition, the Montana Alberta Tie Line now under permitting will deliver 300MW of wind power to Canada for movement to the Pacific Northwest.

Combined with power from wind generation and clean, green coal projects coming on-line, this added transmission will help to stimulate energy production in Montana. Frankly, if we had enough redundant transmission capacity in this

country we could run a good portion of our portfolio on wind alone, because at any given moment the wind is blowing in a number of places in America.

There are other opportunities for firming wind power. We have begun to assess underground compressed air storage sites. Typically, we can only generate electricity when the wind is blowing, whether we can use it at that moment or not. But with underground compressed air, we can use some of this wind power to run compressors, store that air underground, and then release it to run turbines when the wind is not blowing. Some of the same types of geological formations that are suitable for storage of carbon dioxide are suitable for storing compressed air.

Once more, please visualize that map of the Middle East. If we don't get conservation right, if we don't start utilizing our wind resources more effectively, and if we don't develop biofuels and coal-derived fuels, then the next generation and the one after that will be even more familiar with the countries of the Middle East.

We need to make a very real national commitment to domestically produced energy. We have the inherent energy resources, and we can develop the technologies to use them. We can perfect the sequestration of carbon dioxide. Through these efforts we can create tens of thousands of new jobs right here in America.

Yes, we can achieve energy independence in America, but only if we have a true vision for the energy future of America. We must have a plan to get there, and the political will to bring it to reality.