

High Country News

FOR PEOPLE WHO CARE ABOUT THE WEST

Mission critical

Can natural gas help save us from global warming?

Randy Udall | OPINION | Aug 14, 2009 | *From the print edition*

Some 15 million Americans believe the moon landings were faked. They never drank the Tang. Millions more are convinced that Elvis lives and that the sun revolves around the Earth, which is approximately 6,000 years old.

Reason and science have their fans, but many Americans find faith more appealing. For example, the National Academy of Sciences has decreed the evidence for climate change unmistakable, but that won't stop Oklahoma Sen. James Inhofe, R, from declaring it a hoax, and he's not alone.

"I don't think the human effect is significant," says Harrison "Moon Rock" Schmitt, the last astronaut to (allegedly) explore the lunar surface. What then explains those melting glaciers? Global warming skeptics have many crackpot theories. My favorite came from a housewife in Arkansas, who insists that daylight savings is to blame: "It's that extra hour of sunlight."

Against this backdrop it's a miracle that the House recently passed a climate change bill. The legislation -- 1,500 pages of bratwurst -- may not pass the Senate, but it's worth asking what might happen if the nation ever got serious about reducing greenhouse gases.

In July, Colorado Gov. Bill Ritter, D, addressed hundreds of natural gas executives at a conference in Denver. A year ago Ritter was in the midst of a bruising battle with the industry, as he championed aggressive new standards for drilling and

wildlife protection. Now, facing a tough re-election challenge, he struck a conciliatory note.

"Natural gas is a vital part of the new energy economy -- not a bridge fuel, not a transition fuel, but a mission-critical fuel," the governor proclaimed. "We can't begin to address climate change in a meaningful way without using more natural gas."

In recent months, clean-energy advocate Robert F. Kennedy, Jr. and former Colorado Sen. Tim Wirth have echoed similar sentiments. "Climate disruption is real," Wirth told the Denver conference. "We are in very deep trouble, the edge of catastrophe. The gas industry must play a major role in saving the world."

Wirth and Ritter are right. In Colorado, as in China, the big question is what to do about coal. The average coal-fired power plant produces three times more carbon dioxide than a modern natural gas plant. Each day, 10,000 hopper cars heaped with coal -- enough to fill a train 110 miles long -- trundle out of the Rockies, bound for power plants as distant as Florida.

Of course, we burn our share of coal here at home, too. Throughout the Intermountain West, coal provides about 75 percent of the electricity. Gov. Ritter has called for a 20 percent reduction in electric-sector greenhouse emissions by 2020. This is a very tall order, in no small part because the state may add 1 million people by then.

Population is rarely broached in climate discussions, which is unfortunate because growth is a big deal. Reducing emissions while people are increasing is like running down an up escalator. To hit Ritter's target, all growth in demand would need to be met through conservation and a multibillion investment in carbon-free wind, solar or nuclear. Simultaneously, you'd have to retire nearly one-half of Colorado's coal plants, and somehow replace their output.

Could conservation fill the entire gap? That's unlikely. The potential for energy saving is enormous, but getting it to happen on such a large scale in such a short time would be difficult. Efficiency may be the new apple pie, but the inconvenient truth is that the typical household is using 10 percent more electricity than it did a

decade ago, due to the proliferation of air conditioning, plasma TVs, and other gadgets. That leaves burning more natural gas, a lot more, nearly twice as much as the state burns for electricity now.

The politics of fuel switching are difficult, because it would raise electric rates and because coal's markup rivals that of Fiji Water. Each year, the nation's utilities spin \$40 billion worth of coal into \$160 billion of electricity. Thus, although the average coal plant is nearly 40 years old, there's no incentive to retire it.

Does Colorado produce enough natural gas to support such a strategy? Yes, plenty. One-fifth of the state's current exports would suffice. But right now, the Rocky Mountain gas industry is suffering through its worst year in recent history. Commodity prices have cratered. Not a single coalbed methane well was drilled in Wyoming's Powder River Basin in June, welcome news to local environmental groups.

For the next year or two, the nation is likely to remain awash in gas. But if the whole nation were to embrace fuel switching, as it may need to do to reduce emissions quickly, the glut would disappear and much more gas would be needed. Gas reserves aren't the issue, due to the discovery of large new sources of shale gas. But to displace large amounts of coal, natural gas drilling would need to resume the frantic, helter-skelter pace of recent years.

It's a heartbreaking dilemma: The gas industry has not been gentle on Western landscapes -- but climate change could be worse. So pick your poison. To displace coal with gas, we'd need to complete 30,000 to 40,000 new wells a year for decades to come. If that's our only strategy for averting climate disaster, we might need to put somebody like Sarah Palin in charge of drilling.

For more information, please see:

Landscape impacts of natural gas development: <http://www.skytruth.org/>

Democrats embrace shale gas:

<http://blogs.wsj.com/environmentalcapital/2009/08/10/clean-energy-summit-you-want-clean-energy-shale-gas/>

National and international counts of drilling rigs:

http://investor.shareholder.com/bhi/rig_counts/rc_index.cfm

Natural gas prices: <http://www.oilenergy.com/1gnymex.htm>

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