

High Country News

FOR PEOPLE WHO CARE ABOUT THE WEST

Fracking is the big new gun

Randy Udall | OPINION | Mar 29, 2012 | *Web Exclusive*

New technologies are riderless horses. They have a mind of their own and go where they want.

Someone invents the personal computer, and 40 years later you spend hours each day surfing the Internet. Travel agents disappear, software engineers are born. Outside Las Vegas, soldiers sit in darkened rooms piloting drones with joysticks, raining hellfire down on Taliban fighters a world away.

Disruptive technologies don't care what you think or who you are. They'll sweep you up and drag you along. That's where we are right now with hydraulic fracking, horizontal drilling, downhole telemetry, 3D seismic and the host of related technologies that have unlocked shale gas and "tight" oil plays like North Dakota's Bakken field, where more rigs are at work than in Saudi Arabia.

Recent history teaches that geology rocks and science rules. The sexy rocks in petroleum geology have always been porous sandstones and limestones, easy formations willing to surrender the goods. In contrast, black shales, the original wellspring of all petroleum wealth, have been overlooked even though geologists knew them to be everywhere. Yes, you could drill them, and a few did, but generally you were pouring sand down a rat hole.

Now, that world has been overthrown. If Prudhoe Bay's startup in 1977 was the energy equivalent of a sugar-high sending 2 million barrels per day gushing south, the "shale gale" has been a hit on a crack pipe. Since 2000, the equivalent of 4

million barrels per day of new natural gas has hit the market. Two Prudhoes, and no one saw it coming.

Like all revolutions, this one has had unanticipated consequences. It's crashed the price of natural gas, saving your family \$200 this year alone. It's idled 10,000 uneconomic coalbed methane wells in Wyoming's Powder River Basin. It's triggered a leasing frenzy across Colorado's Front Range, where the Niobrara play is the hot new ticket.

The blowback is everywhere. Cheap natural gas has enabled utilities to close dozens of sclerotic, polluting coal plants. In response, coal companies propose to export their surplus coal to Asia, enabling China, with its tremendous energy appetite, to nibble on Wyoming and Montana. Fracking has put a dagger in the nuclear renaissance, and created challenging headwinds for renewables. Fracking, together with weak regulations and gutless politicians, is the reason that Pinedale, Wyo., and Vernal, Utah, now have worse wintertime smog than Los Angeles, New York or Houston.

You may say you want a revolution, but generally you don't. Predictably, fracking, the high-pressure injection of massive amounts of water, sand and toxic chemicals a mile underground, has sparked controversy.

It is nearly impossible to turn on MSNBC's Rachel Maddow or FOX TV without finding someone either deploring or celebrating its arrival. Fracking took a whirl in President Obama's State of the Union address. Colorado Gov. John Hickenlooper records industry-penned radio announcements extolling its safety. Conferences are held, talks are given, hands are waved.

But there's a key difference between the Internet revolution and these disruptive innovations in oil and gas. The former took over your brain; the latter threatens your water, air and the land and wildlife you love, perhaps even your perception of democracy.

Yet the larger story has gone missing. With little discussion and less thought, and with barely a peep of civic protest, modern technology had married ancient geology. What a fateful union, as this power-struck duo has enshrined oil and gas

extraction as the dominant land use on our continent.

Since the year 2000, oil and gas companies have leased a staggering amount of land in the Rockies, Texas, Louisiana, Arkansas, Oklahoma, Pennsylvania, New York and Ohio. Add it all up, and the industry now holds drilling rights to at least 10 percent of the Lower 48, more land than is owned by the Bureau of Land Management, more land than we will plant in corn, wheat and soybeans, about 10 times as much acreage as we've paved -- all given over to oil and gas for at least 50 years to come. Just in western Colorado, for example, Encana, Exxon and a company called Williams own a Yellowstone Park-sized chunk of land in Garfield and Rio Blanco counties.

Nearly 50,000 oil and gas wells will be started in the United States this year, more than in all other nations combined. Roughly 90 percent of them wouldn't be drilled unless their target zones could be fracked. Like it or not, and many of my friends seem to hate it, this technology has become one of the underpinnings of our civilization, as central to the way we live as the cell phone or computer.

Tighter regulation of fracking, and indeed the entire petroleum industry, may be both imminent and long overdue, but this particular horse has already left the barn, and is rapidly galloping across the entire planet.

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