



March 23, 2010

Honorable John Kerry  
218 Russell Senate Office Building  
Washington, DC 20510

Honorable Lindsey Graham  
290 Russell Senate Office Building  
Washington, DC 20510

Honorable Joseph Lieberman  
706 Hart Senate Office Building  
Washington, DC 20510

Dear Senators:

As you and your respective staff work through the final details of energy and climate legislation expected to be released soon, reports have suggested your impending draft may include “sense of the Senate” language related to hydraulic fracturing – specifically, a provision that reinforces existing law, and acknowledges the critical role that states continue to play in ensuring the process is done safely.

In view of that potential, I have the privilege of writing to you today in my capacity as executive director of Energy In Depth, an organization created last year to educate key stakeholders and the public on the economic and strategic imperative of shale gas exploration, as well as the critical technologies in use today to access these clean-burning resources efficiently, and without harming the environment.

Hydraulic fracturing, as mentioned, is one of those non-negotiable technologies, and is in fact fundamental to the realization of many of the economic and environmental benchmarks your legislation is being drafted to pursue. Consistent with those objectives, what follows are several important facts regarding the safety, performance and necessity of hydraulic fracturing – facts I hope will inform your thinking on this issue as you render final decisions on the ultimate form your legislation will take.

**Hydraulic fracturing is not new.** Depending on the regional biases of those you might ask, hydraulic fracturing was either first deployed in Kansas in 1947 or Oklahoma in 1949. Either way, we’re talking about an energy technology that’s been safely used and continuously refined for more than 60 years -- so much so, that nine out of 10 oil and natural gas wells developed in America today rely on fracturing technology to remain in service.

**Hydraulic fracturing is closely regulated by the states.** States began the work of aggressively regulating and overseeing the construction and operation of oil and natural gas wells long before hydraulic fracturing was first used commercially more than 60 years ago. Part of their regulatory purpose is the protection of groundwater resources. Today, in many states, fracturing regulation is codified in explicit statute; in others, it’s included as part of the state’s broader regulatory program aimed at protecting underground sources of drinking water. In both cases, state regulators on the ground, in the community, have compiled a remarkable record of successful oversight in the 60 years in which fracturing technology has been in use – a fact that’s been recognized and applauded by the Ground Water Protection Council, and most recently, the EPA’s top drinking water protection official.

**The materials used in the fracturing process are widely disclosed.** Easily the most mischaracterized and misunderstood element of the debate over hydraulic fracturing, some in Congress seem to believe that the slight percentages of chemical additives found in the water- and sand-based fracturing solution

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are secret – and further, that industry continues to resist the disclosure of these elements. Neither assertion is true. At every well site in America where chemicals are present, you'll find a detailed listing of those materials printed and maintained on Material Safety Data Sheets (MSDS), which are mandated by the federal government. MSDS are searchable online. Additionally, several states and industry organizations, such as Energy In Depth, have provided information on their websites describing the kinds of additives used in the fracturing process, as well as their purpose.

**Hundreds of thousands of high-wage jobs are directly tied the continued use of fracturing.** While it's difficult to pinpoint precisely the total number of jobs nationwide conditioned on the responsible development of shale gas, back-of-the-envelope estimates suggest we may be talking about several hundred thousand of them. That figure includes more than 100,000 jobs in Pennsylvania, according to Penn State University; nearly that many in the Haynesville Shale formation in Louisiana (and parts of Texas); and several thousand more in the Barnett field in North Texas.

**Hydraulic fracturing is quite literally redefining America's energy future.** Over the course of just the past 18 months, natural gas production has increased by a staggering 15 percent in the lower 48 – bringing to life states, regions and communities long thought to have long-since retired from the business of producing American energy. Shale gas has helped add more than 70 trillion cubic feet to U.S. reserves over the past several years, equivalent to more than half the total proven reserves of gas giants such as Qatar. If fully realized, the Marcellus Shale formation that underlies several states in the mid-Atlantic would become the second largest gas field in the entire world – second only to the South Pars/North Dome field that straddles Iran and Qatar.

**Study after study has found hydraulic fracturing to be safe.** Several exhaustive studies and research projects focused on the safety and performance of hydraulic fracturing have been released over the past several years, most prominent among them a 2004 study from EPA that found “no evidence” of a relationship between the responsible use of fracturing and potential contamination of drinking water. In addition to EPA, the technology has been studied by the U.S. Department of Energy, the Ground Water Protection Council, and several other government agencies and respected outside consultancies. Each time it's reviewed, the results come back the same: No danger to drinking water, no grounds to doubt the effectiveness of state oversight and regulation. Despite this history, Congress has initiated a new study by EPA – an effort we hope will settle the question of how best to manage environmental issues associated with the fracturing process once and for all.

**Hydraulic fracturing has never been directly regulated by EPA under the federal Safe Drinking Water Act (SDWA).** Those who believe the Energy Policy Act of 2005 “exempted” hydraulic fracturing from regulation under SDWA forget one important fact: Hydraulic fracturing was never regulated under that law in the first place. Indeed, when SDWA was passed into law in 1974, hydraulic fracturing had been in safe use for more than 25 years. At no point was the concept of SDWA regulation over hydraulic fracturing considered – not then, and not (until recently) in the 36 years in which the law has remained on the books.

**That said, production of oil and natural gas continues to be regulated both under SDWA and the Clean Water Act.** As mentioned, states maintain primary regulatory authority over the actual process of fracturing, but once the stimulation procedure is complete, federal agencies, along with the states, manage the safe and responsible disposition of produced water – either through authorities included under SDWA (injection wells), or the several related sections of the Clean Water Act (wastewater treatment).

**Industry continues to lead the way on best practices, new technologies.** While hydraulic fracturing continues to build upon a 60-year track record of safety and performance, industry recognizes that with additional volumes of clean-burning natural gas being made available, additional scrutiny and attention will come along with it. That's why industry is aggressively engaged in the development and implementation of best practices governing every stage of the natural gas development – from the drilling of a well, to the casing and cementing, all the way through to delivery. We also actively participate in the

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State Review of Oil and Natural Gas Environmental Regulations (STRONGER) program, which starts with a comprehensive review of state-based policy, and then produces a series of independent recommendations designed to enhance existing regulatory regimes.

In closing, allow me to take this opportunity to thank you each of you for your long-standing support for clean-burning, American natural gas, and your continued commitment to leveraging these resources into jobs, revenue and opportunity for the people and places you represent.

Amidst all of the other priorities your bill will seek to address, we hope that you can find space in your draft legislation to make your commitment to natural gas explicitly clear – and perhaps, even take the opportunity to remind your colleagues once again of the critical role that technologies such as hydraulic fracturing can and must play in meeting the goals for our future in which we all share.

Sincerely,

A handwritten signature in black ink that reads "Lee O. Fuller". The signature is fluid and cursive, with the first name "Lee" being particularly prominent.

Lee Fuller  
Executive Director  
Energy In Depth

CC:

Honorable Jeff Bingaman (D-N.M.)  
Chairman, Senate Committee on Energy and Natural Resources

Honorable Lisa Murkowski (R-Alaska)  
Ranking Member, Senate Committee on Energy and Natural Resources

Honorable Tom Udall (D-N.M.)  
Senate Committee on Environment and Public Works

Honorable Mark Udall (D-Colo.)  
Senate Committee on Energy and Natural Resources

Honorable Mark Pryor (D-Ark.)  
Senate Committee on Appropriations

Honorable Michael Bennet (D-Colo.)  
Senate Committee on Agriculture, Nutrition, and Forestry

Honorable Bob Casey (D-Pa.)  
Senate Committee on Agriculture, Nutrition, and Forestry

Honorable Arlen Specter (D-Pa.)  
Senate Committee on Environment and Public Works