

Senate Committee on Energy and Natural Resources

Hearing on
Opportunities and Challenges Associated with America's Natural Gas Resources

Testimony of John Hickenlooper Governor, State of Colorado

Tuesday, February 12, 2013
366 Dirksen Senate Office Building

Mr. Chairman and members of the committee, thank you for this opportunity to offer Colorado's perspective on energy policy, as it relates to natural gas, the focus of this hearing.

Our economy is making a steady recovery, but we are still fragile. Too many Americans are out of work and the worldwide competition for jobs is a great challenge. The international situation is still volatile, particularly in the Persian Gulf. And record-setting high temperatures over the last decade remind us that climate change could have profoundly negative impacts on our planet.

Economic prosperity, national security and climate: Three generational challenges of tremendous importance.

Energy is at the crux of all these challenges.

If we get energy policy right, we'll make progress on all three.

Responsible development of natural gas – the subject of this hearing -- is fundamental to a successful energy strategy.

Natural gas has made American industry more competitive. We have seen new investment in energy-intensive companies. American chemical and fertilizer industries are growing because of inexpensive natural gas. Foreign investment in electricity-intensive industries has also been flowing into the country, as natural gas helps keep utility rates low, even as domestic coal remains cheaper.

We are on target to be a net exporter of natural gas by 2020.

Domestic development of shale gas and oil, homegrown renewable energy and efficiency strategies are leading us toward energy independence. With less reliance on foreign sources, our exposure to the impacts of global events is reduced. Our oil imports are falling - to approximately 40 percent of our consumption, down from 60 percent as recently as 2006. By next year, imported oil is projected to make up just 32 percent of demand. More energy dollars will stay home, our dependence on foreign supplies will decrease.

A revolution in shale gas has brought welcome news. Inexpensive gas is driving down carbon emissions in the United States. Last year, the U.S. Energy Information Agency found CO₂ emissions in the first four months of 2012 had fallen to 1992 levels. When you consider that our population has grown by 57 million since then, it translates to per capita carbon emissions at the lowest level since President Eisenhower left office in 1961.

Inexpensive natural gas, its associated efficiencies, and its limited environmental impact are leading utilities to switch from coal to gas. David Victor, Vice-Chairman on the World Economic Forum's Global Agenda Council on Energy Security, has written that this shift means U.S. emissions in 2012 are projected to be approximately 450 million tons lower than otherwise. That number is double the global impact of all the Kyoto treaty's signatories combined, including the European Union. This month, the Environmental Protection Agency reported that U.S. power plants in 2011 produced 4.5 percent less CO₂ than in 2010, a drop the agency attributed to the benefits in switching from coal to gas, as well as increasing use of renewable energy.

This emerging data is nothing short of transformative. By improving extraction technologies and extending natural gas to new markets and new applications – including transportation – we can not only make the U.S. economy stronger and enhance our security and independence, but we can take significant steps toward reducing climate-warming emissions.

This doesn't mean abandoning a strategy focused on renewable energy; quite the opposite.

We must chart a parallel path, continuing investments in wind, solar and other renewable sources of energy, including conservation and efficiency. A coherent strategy for the future cannot be dependent on one fuel source. We need a diverse energy portfolio that drives the economy, and at the same time prepares for future contingencies.

This is the approach that President Obama has rightly championed -- an "all-of-the-above" strategy – one that encourages domestic oil and gas production, continues investment in clean energy research and technologies, and partners with industry for dramatically more efficient automobiles. It is a forward-looking strategy that combines American ingenuity with a commitment to sustainability.

Colorado is moving forward with our own version of an "all-of-the-above" strategy, and natural gas is a significant part of our energy mix. We are also more broadly utilizing our abundant renewable sources, as well as working on legislation and other initiatives to mine efficiency and conservation for all they are worth.

We believe Colorado presents a model for the nation. Our approach is balanced. We are reaping the benefits of advanced technologies, not just in shale gas but also in renewable energy. We are encouraging efforts to make coal a cleaner source of energy, but while that research continues, we will work with the resources at hand.

Colorado has a long and proud history of oil and gas development. Our first oil well dates back to when Abraham Lincoln was president.

We rank fifth in natural gas production and tenth in oil production. Our diverse hydrocarbon resources encompass a variety of shale, tight sand, coal bed methane, and other formations that span the state. This landscape has changed over the years, and has taken a significant turn as operators combine improvements in hydraulic fracturing and horizontal drilling to unlock reserves of oil and gas in formations, such as the Niobrara in Colorado, historically considered impractical for extraction.

As a former geologist, I have some experience with this technology. We worked on so-called “frack jobs” when I was in the industry in the 1980s. The industry, incidentally funded by billions of federal research dollars in the 1990’s, has made great advances since that time.

Colorado also has a history of creativity in its approach to energy. In 2004, we became the first state in the country to launch a renewable energy standard through a statewide voter initiative, one our legislature has strengthened in years since to become – at 30 percent – the second highest in the country. In 2010, we passed the landmark Clean Air Clean Jobs Act which switches much of our electrical generation from coal power plants to natural gas, thereby addressing both climate and air quality, and reducing water consumption.

Natural gas and renewable sources are proving to be ideal partners, since gas efficiently cycles on and off to pair with intermittent resources such as wind and solar power.

We are achieving these energy goals across party lines. Gov. Mary Fallin of Oklahoma and I are leading a bipartisan effort to promote the use of natural gas as a transportation fuel for state vehicles. What started with Oklahoma and Colorado a little over a year ago has now expanded to 22 states representing every region of the country.

With a little effort we see the potential for including the federal government and perhaps Canadian provinces and other partners to build a market for large vehicle fleets using natural gas.

These initiatives target larger and heavy duty vehicles. Converting from diesel power to compressed natural gas reaps the biggest benefit in reductions of carbon, particulates and other pollutants. We are also finding ways to expand the fueling infrastructure, so trash haulers, delivery vehicles, buses, and trucks have more options for refueling.

Electric vehicles also hold tremendous promise, particularly for automobile consumers in the future, and we should pursue their development. But we do not need to pick winners and losers at the start of the game. Let’s continue to pursue a comprehensive approach and let the market work.

The expansion of natural gas certainly brings regulatory challenges. As development moves into more urbanized areas we must be responsive to public concerns about the health and safety of industrial processes near homes and schools. Working together state and local governments can minimize hazards through effective oversight and enforcement.

As patterns and the extent of oil and gas activities change due to constantly evolving technologies and economic demands, our regulatory approach has to adapt.

Mr. Chairman, to put it bluntly, natural gas has a place in making us more secure and is addressing climate change, but we'll need to make sure that the production side is as protective of our environment and human health as possible.

Our goal in Colorado is to be accountable for the highest ethical and environmental standards with a regulatory structure based on three principals – namely, that our regulations are reasonable, scientifically-based, and protective of health and safety.

Our aim is to reduce emissions including the capture of methane, and with, by necessity, the strictest rules in the country to protect air and water.

In 2008, Governor Bill Ritter secured legislative support for restructuring the composition of Colorado's Oil and Gas Conservation Commission, reducing industry representation and diversifying membership. This revamped commission embarked on a sweeping 18-month overhaul of regulations that produced new protections for the environment. These rules have become the basis for regulatory initiatives in other states and even other countries, the latest being Ukraine.

A year ago, working with such diverse partners as the Environmental Defense Fund and Halliburton, we passed regulations requiring disclosure of chemicals in hydraulic fracturing fluid. As described in a recent edition of The Economist these rules suggest an international model for disclosure, protecting trade secrets and intellectual property, while providing a basis for public accountability.

Colorado now requires mandatory water testing near drilling and completion sites both before and after operators conduct their activities. We are one of just three states in the country that has rules for mandatory groundwater sampling and the only state that requires post-drilling sampling.

This month we are also finalizing rules to reduce the impacts of drilling near communities. These rules increase the minimum distances between drilling sites and occupied buildings and require the most stringent mitigation requirements in the country to ensure work occurs with the least disturbance to nearby residents, with "green completions" required within 1,000 ft. of hospitals or schools.

In partnership with our universities, we are launching a comprehensive study of the impacts of natural gas drilling on air quality and public health. This comes after several steps in recent years to reduce the pollutants that originate at oil and gas facilities, including requirements for emission-control devices to capture the emissions that can otherwise escape prior to a pipeline connection.

Increased communication is central to our regulatory reform. Our Commission has two staff members dedicated exclusively to local government outreach and other staff members have

devoted significant time working with government officials. We formed a task force to develop protocols for local government engagement that will further address the impacts of development.

Our new rules also include extensive notice and outreach requirements on the part of operators, both to local government representatives and citizens. All this has resulted in greater collaboration between our state regulators and officials at the local level, reinforcing what we know to be true about most difficult problems, namely, that conversation at the front-end reduces problems at the back-end.

In short, the natural gas revolution and growth of renewable energy technologies, present Colorado and the country with an extraordinary opportunity: to create jobs, to make us more secure, more energy-independent, and to do a better job of protecting the environment by reducing greenhouse gas emissions.

These are mission critical goals for our country.

Mr. Chairman, the history of Colorado is largely a story about American energy. From mining to oil exploration in the last century, and, in this century, leading a green energy revolution, Colorado has lessons to offer the country.

Our first oil well dates back to when Abraham Lincoln was president.

Of course, with the country torn apart by war, Mr. Lincoln faced deeper challenges than crafting bipartisan energy policy, but his second address to Congress has wisdom we can still draw from. He said, “We can succeed only by concert. It is not ‘can *any* of us *imagine* better?’ but ‘can we *all* do better?’ The dogmas of the quiet past are inadequate to the stormy present. The occasion is piled high with difficulty, and we must rise with the occasion. As our case is new, so we must think anew, and act anew. We must disenthrall ourselves, and then we shall save our country.”

We should – all of us – no matter our perspective or experience – disenthrall ourselves from bias and ideology to find a new path forward.

Our future depends on how well we find this path together.

We know you share this view and look forward to this morning’s hearing.