

One-page summary of testimony of Andrew Logan  
Director, Oil & Gas Industry Program  
Ceres

Before the House Energy and Commerce Committee  
Subcommittee on Energy and Power  
March 6, 2014

1. Flaring of associated natural gas is a growing problem in the United States
  - a. The flaring rate in North Dakota hit a record high of 36% in December, the most recent month for which data is available
  - b. Texas has seen a 10-fold increase in flaring permits since 2010, and flaring is a growing concern in Wyoming as well.
  - c. Despite significant investment, and leadership by a handful of companies, the problem is only getting worse and will continue to get worse until the regulatory environment changes so that flaring is no longer the cheapest and easiest option.
2. Flaring is environmentally destructive...
  - a. In 2012, the emissions from the flared gas in North Dakota alone were equivalent to adding over one million cars to the road.
  - b. In addition, because the flares used often only partially combust the natural gas, a variety of other hazardous pollutants are generated by the process, including black carbon, another potent driver of climate change with adverse health effects.
3. Economically wasteful...
  - a. In 2012, North Dakota oil and gas producers flared more than \$1 billion of natural gas, a massive economic waste.
4. And largely avoidable
  - a. According to the North Dakota Industrial Commission, it is economic to capture Bakken gas, in large part due to its high liquids content. But flaring in the state is still at around a third of the total gas production. And that is because, while capturing gas produces positive economic returns, it doesn't match the returns from drilling the next oil well. So if regulations allow that sort of short-term decision making, as they do in North Dakota, many companies will make that choice.
5. Flaring will only be solved when the regulatory structure changes so that flaring is no longer the easiest option. This holds the potential to unleash massive innovation, and capture a \$1 billion/year market opportunity
6. At the moment, flaring regulation is done mostly at the state level. There is an option for federal oversight by expanding EPA New Source Performance Standards, which currently only cover natural gas wells, to include oil wells.



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Chairman Whitfield, Ranking Member Rush, members of the subcommittee, thank you for the opportunity to be here today to testify on the economic and environmental impacts of natural gas flaring in the United States.

Ceres is a non-partisan, non-profit organization. We are a coalition of institutional investors and environmental organizations working to make capital markets more environmentally and socially sustainable. We have over 100 institutional investor members representing over \$11 trillion in assets, united by the belief that strong environmental and social performance drives strong financial performance over time.

Our investor members have significant financial exposure to the oil and gas sector, and very much want to see the industry succeed. While shale oil is bringing significant economic benefits to the United States, we believe that the way the resource is currently being developed is extremely short-sighted, and is failing to capture its full value.

Our investors believe that flaring natural gas is environmentally destructive, economically wasteful and, most importantly, it is almost always unnecessary. And despite well-

intentioned and quite significant efforts by some companies, the problem is getting worse, and will continue to get worse until the regulatory environment changes so that flaring is no longer the cheapest and easiest option.

Flaring is a problem that the US thought it had left behind in the 1950s. But the rapid growth of tight oil production in the United States, in places like North Dakota and Texas, has been accompanied by a dramatic increase in flaring that has propelled the U.S. into the top 10 gas flaring countries globally along with Russia, Nigeria, and Iraq.<sup>1</sup> This is not the sort of company that the US should be keeping.

Most of this flaring is occurring at oil wells drilled in areas that lack the pipeline and processing infrastructure necessary to capture the gas that comes out of the ground with the oil. Instead of investing in the infrastructure necessary to capture that gas, companies are often choosing to simply flare it off where current regulations allows them to do so. It is important to note, though, that lack of infrastructure is only part of the problem. Roughly half of all flaring in the Bakken comes from wells that are already connected to pipelines.<sup>2</sup> So we need better planning as well—we want to see industry plan its wells with the idea that natural gas has value.

This is coming at a steep environmental cost. Flaring is a major contributor to greenhouse gas emissions. In 2012, the emissions from the flared gas in North Dakota alone were

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<sup>1</sup> Global Gas Flaring Reduction “Estimated Flared Volumes from Satellite Data, 2007-2011” <http://go.worldbank.org/D03ET1BVD0>

<sup>2</sup> Fielden, Sandy “Set Fire To The Gas– The Fight to Limit Bakken Flaring” 6 May 2013, <https://rbnenergy.com/set-fire-to-the-gas-the-fight-to-limit-bakken-flaring>

equivalent to adding over one million cars to the road.<sup>3</sup> In addition, because the flares used often only partially combust the natural gas, a variety of other hazardous pollutants are generated by the process, including black carbon, another potent driver of climate change with adverse health effects.

While flaring in North Dakota has received the most attention, it is a problem nearly everywhere that has seen significant tight oil production. Texas has seen a 10-fold increase in flaring permits since 2010, and flaring is a growing concern in Wyoming as well.

The environmental impact of flaring is not its sole cost. North Dakota gas is so rich in valuable natural gas liquids like propane and butane that this is about the last gas you would want to flare. In fact, over the course of 2012, North Dakota oil and gas producers flared more than \$1 billion of natural gas, a massive economic waste.<sup>4</sup>

So flaring is clearly environmentally damaging. It is economically wasteful, to the tune of a billion dollars a year- and growing- in North Dakota alone. But most importantly, it is avoidable.

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<sup>3</sup> Salmon, Ryan “Flaring up: North Dakota Natural Gas Flaring More Than Doubles in Two Years” <http://www.ceres.org/resources/reports/flaring-up-north-dakota-natural-gas-flaring-more-than-doubles-in-two-years/view>

<sup>4</sup> *ibid*

The North Dakota Industrial Commission has run the numbers, and has concluded that it *is* economic to capture this gas, in large part due to its high liquids content.<sup>5</sup> But flaring in the state is still at around a third of the total gas production. And that is because, while capturing gas produces positive economic returns, it doesn't match the returns from drilling the next oil well. So if regulations allow that sort of short-term decision making, as they do in North Dakota, many companies will make that choice.

Our investors take a long-term view and want to see the value of the resource maximized. They are deeply concerned by the current approach to development. The Bakken formation has been around for 360 million years. It's not going anywhere. If it takes a little extra time to develop the resource in a thoughtful and deliberate way, it seems to me we should strongly encourage that.

We are working with our investors to push the industry to take a longer-term view, and it is important to acknowledge that some companies are doing so. Continental, the biggest producer in the Bakken, is sharing drilling plans with pipeline companies several years in advance to allow infrastructure to get a head start, and has managed to bring its flaring rate down to 10%. Hess is planning its drilling program to ensure wells can be quickly connected to gas gathering lines and has made investments in gas processing infrastructure. Yet the data are clear: the problem is getting worse, not better. Flaring in North Dakota hit 36% in December, a new record. This means that more than 1/3 of all natural gas produced in the state is going up in smoke, at the same time as consumers

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<sup>5</sup> Helms, Lynn "Director's Cut" <https://www.dmr.nd.gov/>

around the country are seeing price spikes from natural gas in this cold winter, along with actual shortages of propane in many places.

Flaring is an indefensible economic waste, but it also represents a major opportunity- a \$1 billion/year opportunity for entrepreneurs as well as the industry itself. We are seeing huge amounts of innovation going on, with companies from start-ups to General Electric developing technologies to utilize gas at the wellhead or get it to market without pipelines. There is the potential for a real American success story here. But this technology is having a hard time gaining a foothold because it's hard to compete with free. And right now in North Dakota, flaring is free. If you take only one point away from my testimony today, it's that it shouldn't be.