Congressman Grijalva, thank you for inviting me here today to provide information on the Bureau of Land Management Methane and Waste Prevention Rule. The BLM Methane and Waste Prevention Rule is based on strong evidence-based science, and is a necessary update to regulations that were more than 30 years old. The oil and gas industry must be held accountable to reduce waste and cut heat-trapping emissions from their operations.

Today I'll be talking generally about the relevant science, including what we know about waste and pollution from the oil and gas sector, and the importance of reducing heat trapping emissions from leaks, venting and flaring. I'll also comment briefly on the inappropriateness of using the Congressional Review Act to eliminate an essential rule that was put together based on robust scientific evidence and extensive stakeholder input.

First I will focus on gas flaring. Gas flaring occurs when oil or gas producers burn methane and other gasses at the well rather than treating them as a valuable resource. It seems counterintuitive that a producer would waste a marketable product, but it reflects a decision to skim off only the most valuable resource stream and convert the rest to pollution rather than taking the additional steps required to manage the entire resource efficiently and responsibly. The BLM found that flaring has increased dramatically, especially at oil wells. Reported volumes of flared oil-well gas increased by 318 percent between 2009 and 2015.

Evidence of increased flaring is also visible by satellite. Recent analysis of NOAA satellite data show that increased U.S. flaring is significant at a national and even a global scale. Increased flaring in the United States and Iraq led total global flaring to rise between 2013 and 2015, after falling the previous decade. In 2008 the U.S. was not even among the top ten flaring countries, but by 2015 the U.S. was the fourth largest source of flaring, right after Russia, Iraq and Iran, and ahead of Venezuela, Algeria and Nigeria. There is no reason the U.S. should be climbing this ranking of wasted opportunity and needless pollution. We have the technology and institutions to be a leader, but we need a strong, up-to-date regulatory framework informed by the latest science to play a leading role.

In addition to wasting gas through flaring, recent scientific studies are also producing mounting evidence of the scale of wasted gas in the form of methane pollution, which is released through venting and leaks of natural gas during oil and gas production. New studies have used a wide variety of techniques including imaging and other measurement technology that was not available when the earlier rules were written. Taken together, these studies clarify that methane pollution from oil and gas operations are much higher than was previously understood. When this new evidence was factored into the EPA inventory, the oil and gas sector became the leading source of methane pollution in the United States.

Particularly important is to identify and eliminate the super-emitters, <u>a few sources of methane that</u> <u>account for a vastly disproportionate share of losses</u>. According to Stanford engineering professor Adam Brandt, "We're finding that when it comes to natural gas leaks, a 50/5 rule applies: That is, the largest 5 percent of leaks are typically responsible for more than 50 percent of the total volume of leakage,"

A lot has changed in the more than thirty years since these regulations were last updated. The U.S. oil industry has changed tremendously, particularly with the advent of fracking leading to the surge in tight

oil production. We have better tools to measure pollution and new technology to capture and utilize gas while avoiding waste. All of these matters were carefully considered in developing the methane and waste prevention rules. The BLM rules regulate resources extracted from public lands, and so there is a clear public interest in ensuring that these resources are not wasted, but are managed efficiently and responsibly. Up-to-date rules of the road based on the latest science and informed by a robust public engagement process are essential to holding oil and gas producers accountable to behave responsibly.

By contrast, the CRA process will not consider any of the scientific evidence or stakeholder input. If the joint resolution overturning the Waste Rule is passed, the rules will be decades out of date, and regulators will be explicitly blocked from fixing any problems, now or in the future. The CRA is a radical threat to science based policy making, and its use to roll back this rule will have long-term consequences for American energy supplies, taxpayers, the environment, public health, and scientific integrity.