

Curbing Methane Pollution & Waste: New Mexico's Problem and Opportunity

Jon Goldstein
Director, Regulatory and Legislative Affairs
November 20, 2017





EDF's Methane Research



Science

16 peer-reviewed studies analyze data collected through multiple methods to measure oil and gas supply chain emissions



Collaboration

More than 100 academic and industry partners



Results

Multiple studies find emissions are higher than official estimates



Lessons Learned



Higher Emissions

As a whole, oil & gas methane emissions are higher than conventional estimates suggest.



Super Emitters

Recurring Problem that needs to be addressed

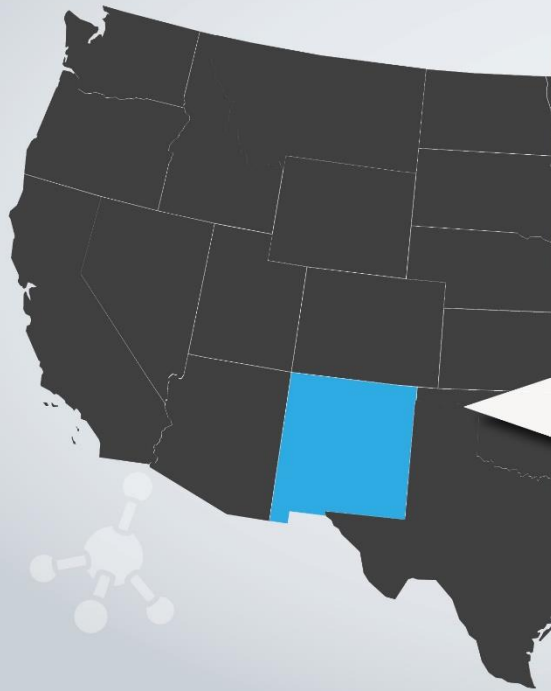


Regulations Work

Reducing emissions through regulations is straightforward & narrows ranges of company performance

OIL & GAS METHANE POLLUTION

How much natural gas is New Mexico wasting?



New Mexico's oil and gas companies emit **570,000 tons of methane** each year.

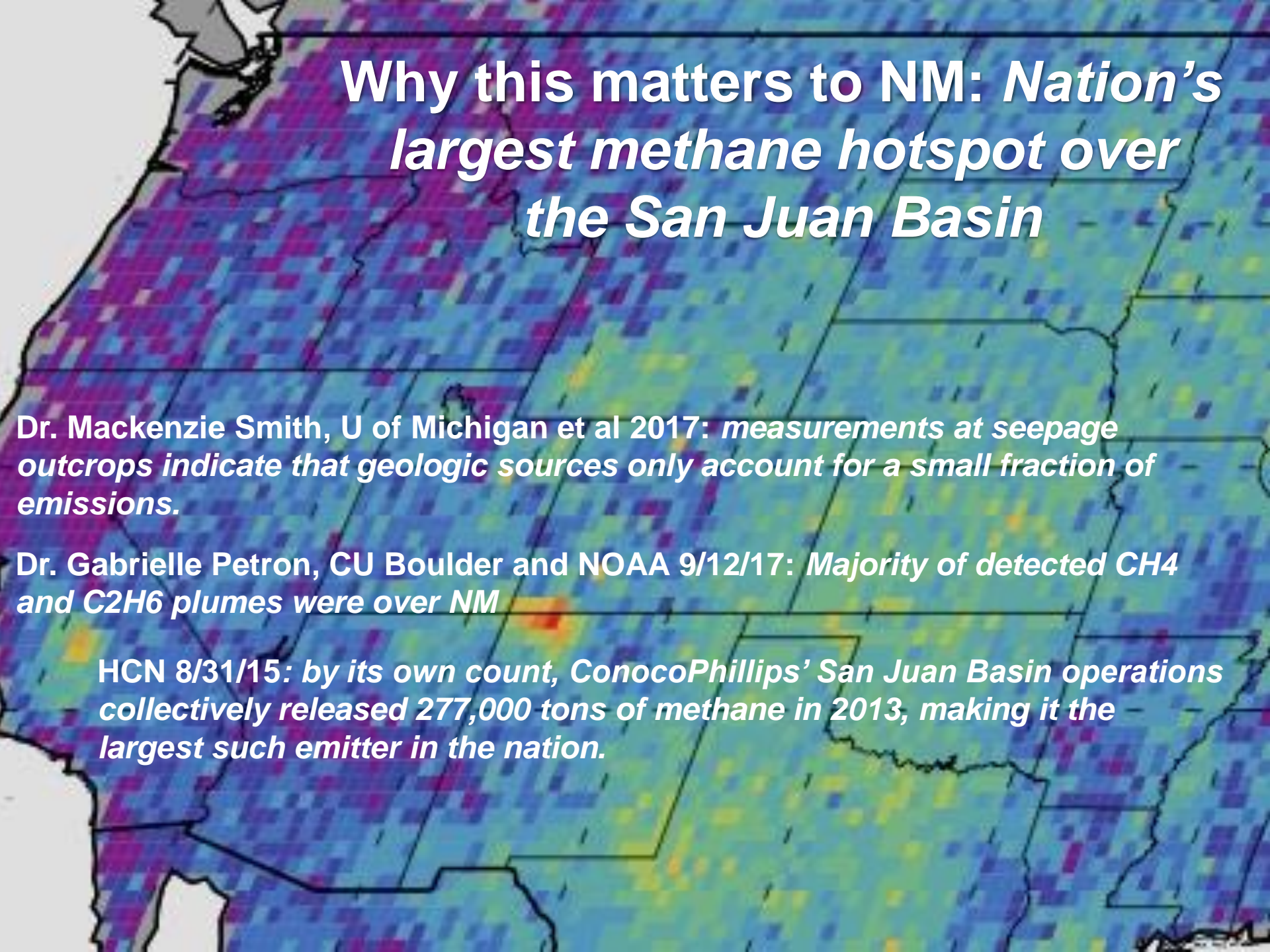


That's enough gas to meet the annual heating and cooking needs of **every home in the state**.



Methane leaks result in **\$180- \$244 million** worth of wasted gas.

- Waste that translates into an additional **\$27 million** in lost state tax and royalty payments each year



Why this matters to NM: *Nation's largest methane hotspot over the San Juan Basin*

Dr. Mackenzie Smith, U of Michigan et al 2017: *measurements at seepage outcrops indicate that geologic sources only account for a small fraction of emissions.*

Dr. Gabrielle Petron, CU Boulder and NOAA 9/12/17: *Majority of detected CH₄ and C₂H₆ plumes were over NM*

HCN 8/31/15: *by its own count, ConocoPhillips' San Juan Basin operations collectively released 277,000 tons of methane in 2013, making it the largest such emitter in the nation.*

A close-up photograph of Governor Michelle Martinez of New Mexico. She has short, dark hair and is looking slightly upwards and to the right with a serious expression. Her mouth is slightly open as if she is speaking. The background is dark and out of focus.

“Leading New Mexico emissions concerns in the energy sector are increased awareness of the amount of methane flared and released from oil and gas development and processing.[the OCD] will be collaborating with several other state agencies to assess the economics and benefits to both the state and industry of better capturing methane emissions.”

*Governor Martinez,
New Mexico’s Energy Policy
and Implementation Plan,
Sept. 14, 2015*

APD's and Gas Capture Plans Submitted 9/18 – 11/5

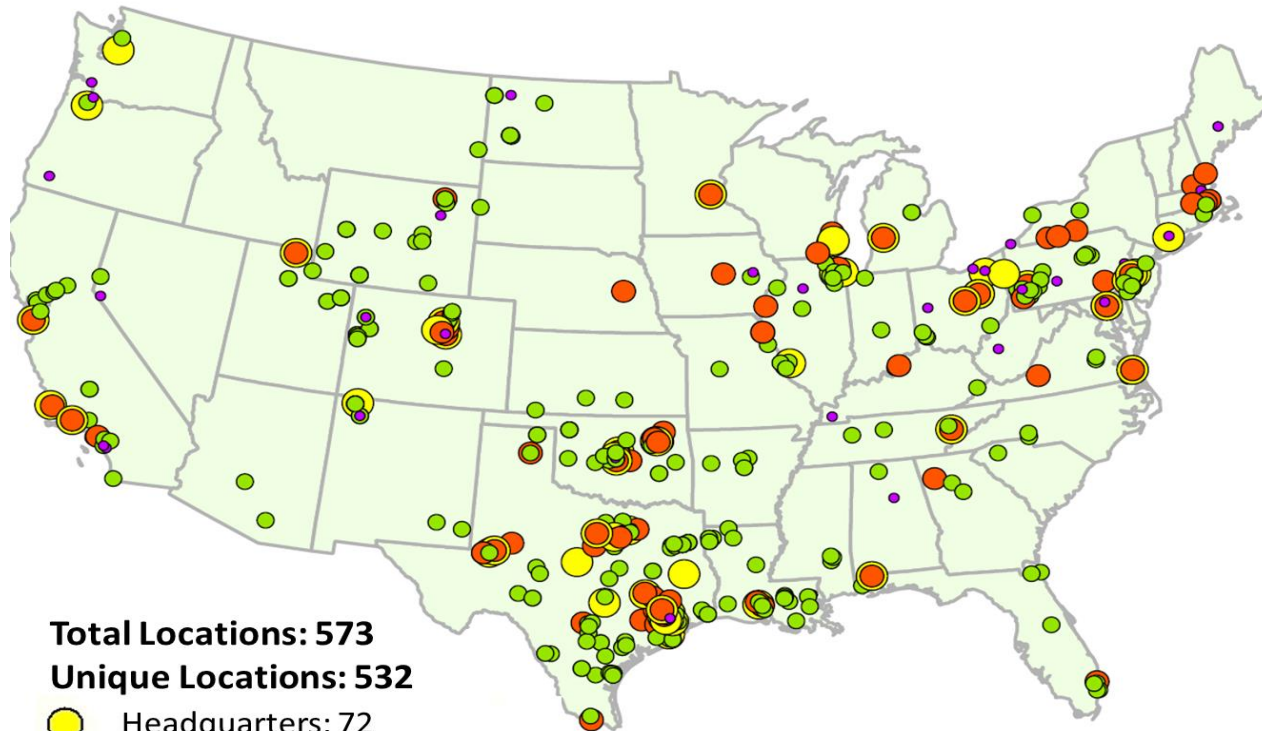
Total APDs	GCP submitted		GCP not submitted	
286	132	46%	154	54%

APD's and Gas Capture Plans By Mineral Owner

	Total APDs	GCPs submitted		GCPs not submitted	
State	100	19	19%	81	81%
Federal	157	110	70%	47	30%
Private	29	3	10%	26	90%

The emerging U.S. industry

Companies have already experienced up to 30% business growth in states with methane regulations.



Total Locations: 573

Unique Locations: 532

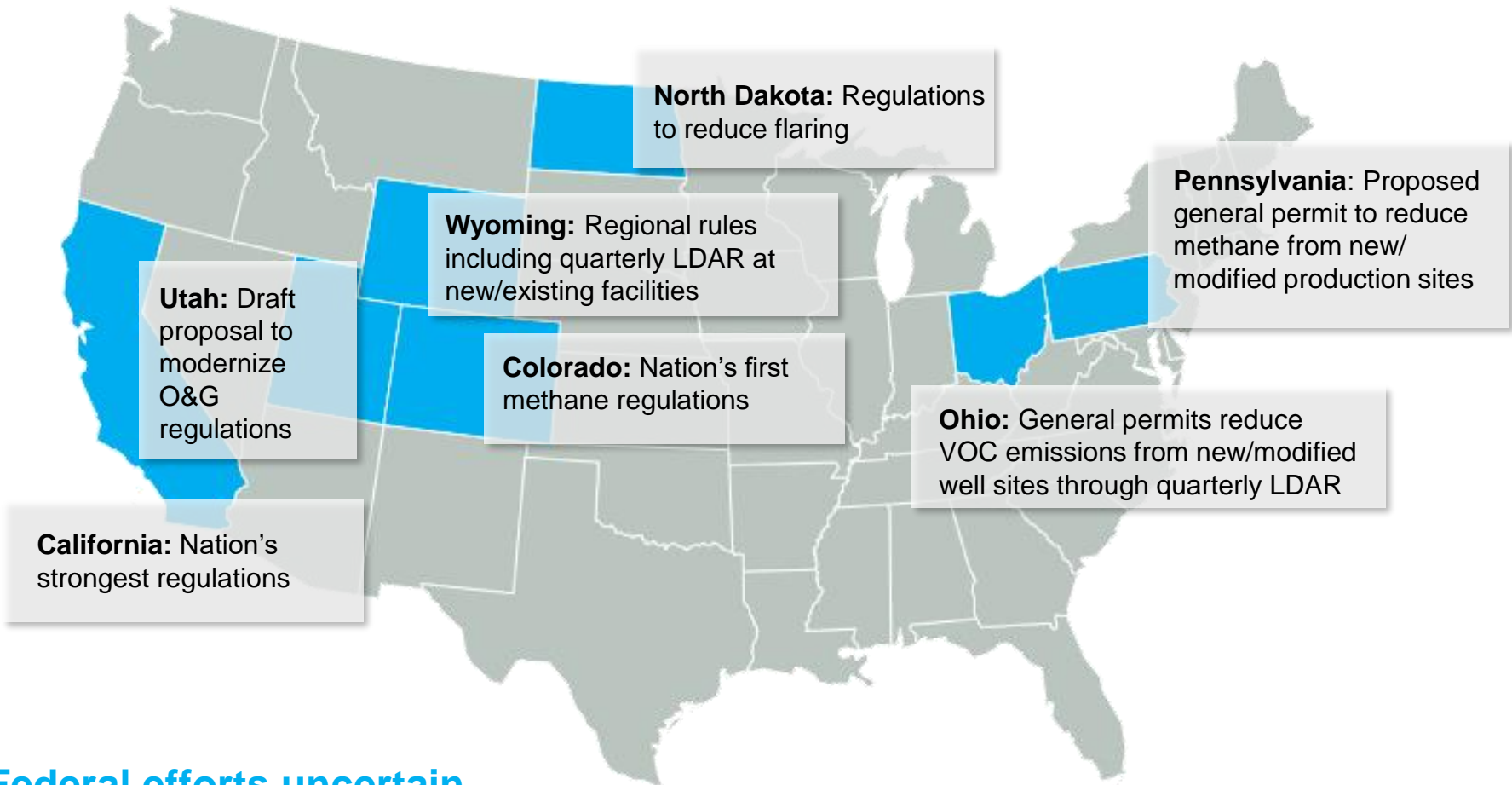
● Headquarters: 72

● Manufacturing/Assembly: 102

● Services: 346

● Other: 53

State emission reduction efforts



Federal efforts uncertain

- EPA regulations on methane from new/modified facilities
- BLM regulations at new/existing sources on public/tribal lands

Industry/Environmental collaboration leads to productive outcomes



FOR IMMEDIATE RELEASE

Contact

Kelsey Robinson, krobinson@edf.org, (512) 691-3404

Colorado Oil & Gas Association and Environmental Defense Fund - Joint Statement on Air Quality Control Commission Vote on New Air Regulations

(November 16, 2017- Denver, CO) The Air Quality Control Commission today voted to strengthen air quality requirements for the Denver Metro/North Front Range Ozone Non-Attainment Area by approving revisions to Colorado's Regulation 7.

Revisions include the following new oil and gas regulatory requirements: increased inspection frequency for certain facilities in the Leak Detection and Repair Program, a new inspection program for pneumatic controllers, and a mutual commitment to further evaluate and analyze potential areas for cost-effective reductions in hydrocarbon emissions.

We worked collaboratively to achieve compromise in several key areas, and we jointly support approval of these revisions which will lead to meaningful emissions reductions in the Non-Attainment Area.

"We worked extremely hard with EDF to reach agreement on core aspects of the Division's proposal. This agreement highlights how far we in the oil and natural gas industry, and others in the environmental community, have come in working together for achievable air quality improvements. Because of this engagement, and because our industry constantly strives to improve its environment and air quality performance, Colorado has the most technologically advanced, strictly regulated, and well-controlled oil and natural gas operations anywhere in the country, and we continue to get better. We are very proud of that fact," said Dan Haley, President & CEO of the Colorado Oil & Gas Association.

Bloomberg

**“Big Oil Moves on Its Own
to Cut Methane Pollution”**

Sept. 27, 2017

**SAN ANTONIO
BUSINESS JOURNAL**

**“Statoil field testing methane leak detection
Equipment developed in San Antonio ”**

April 4, 2014

The New York Times

**“Exxon Aims to Cut Methane Leaks,
a Culprit in Global Warming”**

Sept. 25, 2017

**HOUSTON
CHRONICLE**



**“Exxon Mobile moves to reduce methane
from oil and gas operations”**

Sept. 25 , 2014

NGI NATURAL
GAS
INTELLIGENCE
News | Data | Prices | Insight... since 1981
NatGasIntel.com

**“Shell launches methane detector pilot
at Alberta Shale Gas Site”**

Aug. 9, 2017

Economists report BLM Methane Waste Rule will have a positive effect on New Mexico production and royalty revenue



**A Review of the Economic Factors Surrounding the Capture of Methane
from Oil and Natural Gas Development on Federal Public Land**

Research Paper

Conservation Economics Institute¹

April 22, 2016

The BLM Methane Waste Rule considers economic hardship concerns



“allows operators to request an exemption from these requirements if the operator demonstrates, and the BLM concurs, that complying with the requirements would impose such costs as to cause the operator to cease production and abandon significant recoverable oil reserves under the lease. In making this determination, the BLM will consider the costs of compliance, and the costs and revenues of all oil and gas production on the lease.”