

# Pennsylvania's Methane Pollution Problem

## Reducing oil and gas methane emissions benefits Pennsylvania communities

Pennsylvania is the second largest producer of natural gas<sup>i</sup> --- and as such has a responsibility to ensure that methane, the main component of natural gas, is captured or otherwise not released to the atmosphere.

Methane is being needlessly leaked and vented from hundreds of thousands of sources across Pennsylvania's sprawling natural gas infrastructure.

This methane pollution represents a waste of energy and threatens our climate, but there are low cost immediately available solutions to reducing this pollution. As a leading energy producer, Pennsylvania should also be a leader in cleaning up methane pollution by requiring production companies to control methane pollution.

### Put gas to work in our homes, not our atmosphere.

In 2014 Pennsylvania's oil and gas producers reported wasting nearly **100,000 metric tons of methane**<sup>ii</sup>--- enough natural gas to heat nearly 65,000 homes.<sup>iii</sup> And this figure is likely an underestimate because only large oil and gas operations are required to report their emissions, but methane leaks can occur from wells and equipment of all sizes.

### We can't stop climate change without tackling methane.

Methane is a potent climate pollutant responsible for about a **quarter of the global warming** we are already experiencing right now.<sup>iv</sup> Over the next two decades, **methane will trap 80 times more heat** in the atmosphere than the same amount of carbon dioxide.<sup>v</sup>

The oil and gas industry is the **leading industrial source of methane pollution**.<sup>vi</sup> If action isn't taken, industry's methane emissions are projected to **increase around 25%** over the next 10 years.<sup>vii</sup>

**“Reducing methane leaks is in the interest of the environment and the industry, and a means of ensuring the continued growth of natural gas as a fuel of choice. The rules should be implemented.”**

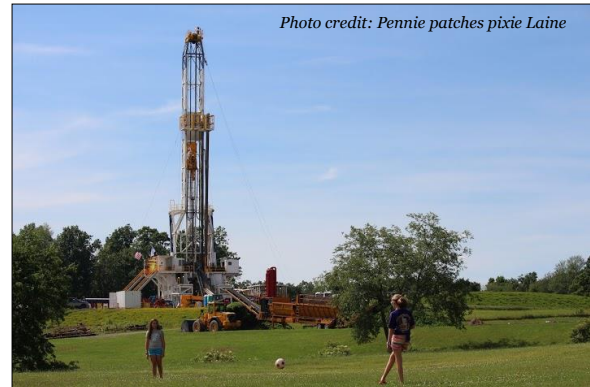
--Scranton Times Tribune<sup>viii</sup>

### Reducing methane can also reduce smog.

Many Pennsylvania counties experience ozone levels that exceed national health-based standards, and emissions from oil and gas drilling are contributing to the problem. When methane escapes from oil and gas equipment, it often does so with other **harmful pollutants** that also **increase smog** levels.<sup>ix</sup>

In the oil and gas producing counties with the worst air quality--there are nearly **20,000 active wells** producing emissions that put approximately **one in seven Pennsylvania residents at increased risk**<sup>x</sup> for developing breathing and other respiratory problems.

Reducing this pollution will help **improve health outcomes** for Pennsylvania's most vulnerable communities.



### Reduce emissions cost-effectively and create economic opportunities.

There are proven-cost effective technologies already at work that can cut methane pollution in half over the next few years,<sup>xi</sup> and many of them are developed and produced in Pennsylvania.

Currently, there are **20 local businesses** across the state that specialize in fixing the problem--- and they help boost the local economy by providing highly skilled, good-paying, long-term jobs to Pennsylvania.<sup>xii</sup>

We're seeing methane emissions technology solutions work in other states. In 2014, Colorado put in place the nation's first direct comprehensive regulations of methane pollution, and the local industry continued to thrive. Weld County--located in the heart of Colorado's drilling boom---experienced the nation's **highest job growth rate** after the state's methane rules went into effect.<sup>xiii</sup>

Other states across the country are also proving that we can have **strong emission standards and strong economic growth**. In Wyoming<sup>xiv</sup> and Ohio,<sup>xv</sup> jobs in oil and gas extraction continued to grow following the states enacting requirements to reduce air pollution from the oil and gas sector.

### Pennsylvania has an important role to play

The U.S. Environmental Protection Agency recently proposed methane emission limits for new and modified oil and gas sources, an important first step toward reducing this unnecessary pollution. Pennsylvania will benefit from national rules that **reduce waste and improve air quality**.

We must also cut the methane pollution that is leaking from the hundreds of thousands of pieces of existing oil and gas industry equipment already in operation. As a leading energy producer Pennsylvania should lead by putting strong requirements in place to reduce emissions from new and existing sources.

**Strong state and federal methane rules** are vital to reducing pollution, protecting public health, and growing a sustainable economy.

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- <sup>i</sup> Natural Gas Gross Withdrawals and Production, Energy Information Agency [http://www.eia.gov/dnav/ng/ng\\_prod\\_sum\\_a\\_epgo\\_vgm\\_mmcf\\_a.htm](http://www.eia.gov/dnav/ng/ng_prod_sum_a_epgo_vgm_mmcf_a.htm)
- <sup>ii</sup> <http://www2.epa.gov/ghgreporting> Data from Subpart W GHG Reported Data. Emissions allocated to each state based on percentage of production from each basin in the states.
- <sup>iii</sup> Average gas use per household in Pennsylvania calculated using number of natural gas consumers by state, EIA website [http://www.eia.gov/dnav/ng/NG\\_CONS\\_NUM\\_A\\_EPGO\\_VN4\\_COUNT\\_A.htm](http://www.eia.gov/dnav/ng/NG_CONS_NUM_A_EPGO_VN4_COUNT_A.htm) and natural gas consumption in Pennsylvania: [http://www.eia.gov/dnav/ng/ng\\_cons\\_sum\\_dcu\\_SPA\\_a.htm](http://www.eia.gov/dnav/ng/ng_cons_sum_dcu_SPA_a.htm) Scranton data from U.S. Census <http://quickfacts.census.gov/qfd/states/42/4269000.html>
- <sup>iv</sup> EDF calculation based on International Panel on Climate Change [AR5](#) WGI Chapter 8.
- <sup>v</sup> International Panel on Climate Change [AR5](#) p. 714 [https://www.ipcc.ch/pdf/assessment-report/ar5/wg1/WG1AR5\\_Chapter08\\_FINAL.pdf](https://www.ipcc.ch/pdf/assessment-report/ar5/wg1/WG1AR5_Chapter08_FINAL.pdf)
- <sup>vi</sup> EPA website: Overview of Greenhouse Gases <http://www3.epa.gov/climatechange/ghgemissions/gases/ch4.html>
- <sup>vii</sup> White House fact sheet: <https://www.whitehouse.gov/the-press-office/2015/01/14/fact-sheet-administration-takes-steps-forward-climate-action-plan-anno-1>
- <sup>viii</sup> Scranton Times-Tribune Editorial “Less methane best policy” Published 8/20/15 <http://thetimes-tribune.com/opinion/less-methane-best-policy-1.1929219>
- <sup>ix</sup> EPA, Basic Information, Emissions from the Oil & Natural Gas Industry <http://www3.epa.gov/airquality/oilandgas/basic.html>
- <sup>x</sup> Ozone daily value (DV) data from EPA (<http://www3.epa.gov/airtrends/values.html>). Counties with active oil and gas wells were cross-referenced with 2012-2014 DVs above 70 ppb\* with counties that have active O&G according to DrillingInfo HPDI Data and then found the populations of those counties per the US census [www.census.gov](http://www.census.gov).
- \*70 ppb is the new standard per the EPA announcement; however, this standard is not yet enforced as the EPA has not re-designated NAA based on this new threshold or updated DVs.
- <sup>xi</sup> Waste Not report, from Clean Air Task Force et al. <http://catf.us/resources/publications/files/WasteNot.pdf>
- <sup>xii</sup> Datu Research report: “The Emerging U.S. Methane Mitigation Industry” [https://www.edf.org/sites/default/files/us\\_methane\\_mitigation\\_industry\\_report.pdf](https://www.edf.org/sites/default/files/us_methane_mitigation_industry_report.pdf)
- <sup>xiii</sup> COUNTY EMPLOYMENT AND WAGES, First Quarter 2015 <http://www.bls.gov/news.release/pdf/cewqtr.pdf>
- <sup>xiv</sup> Quarterly Census of Employment and Wages, Bureau of Labor Statistics <http://www.bls.gov/cew/>
- <sup>xv</sup> Census.gov North American Industry Classification System, Sector 21 -- Mining, Quarrying, and Oil and Gas Extraction <http://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=21111&search=2012%20NAICS%20Search>