

**Statement of Sarah Dunham  
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**Hearing on  
“Fugitive Methane Emissions from Oil and Gas Operations”  
Subcommittee on Oversight  
Committee on Environment & Public Works  
U.S. Senate  
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Good afternoon Chairman Whitehouse, Ranking Member Inhofe, and members of the Subcommittee, I appreciate the opportunity to testify today regarding methane, a potent greenhouse gas.

My name is Sarah Dunham, and I am the Director of the Office of Atmospheric Programs in the Office of Air and Radiation at the U.S. Environmental Protection Agency. The Office of Atmospheric Programs works to protect the ozone layer, improve regional air quality, and address climate change. My testimony today will focus on the importance of continued methane emissions reductions to address climate change.

**Methane Emissions and Climate Change**

There is overwhelming scientific evidence that climate change is happening, that human activity is largely responsible, and that if left unchecked, the impacts will be severe. Efforts to reduce carbon pollution, including short-lived gases such as methane, are critically important to public health and the environment.

Although the majority of greenhouse gas emissions consist of carbon dioxide, other powerful greenhouse gases significantly contribute to climate change, including methane, which is also an ozone precursor. The latest Intergovernmental Panel on Climate Change assessment report estimates

the 100-year warming influence from one ton of methane is 28 times greater than from one ton of carbon dioxide. In 2010, methane emissions accounted for 14% of global greenhouse gas emissions and approximately 9% of U.S. greenhouse gas emissions.<sup>1</sup> However, total U.S. anthropogenic methane emissions are projected to increase by 3-9% by 2030, compared to 2010 emissions levels.

### **Methane Emissions Data**

Methane is primarily released from six sectors: natural gas systems, petroleum systems, agriculture, landfills, coal mining, and municipal wastewater. The EPA provides annual national methane emissions estimates for each sector in the Inventory of U.S. Greenhouse Gas Emissions and Sinks. Along with a number of other organizations, we continue to work to improve measurement methodologies and emissions estimates. There have been several recent studies and analyses that help to improve emissions estimates in the natural gas sector. The EPA has reviewed and used these sources, along with data from the Greenhouse Gas Reporting Program, to update the most recent Inventory estimates for this sector. The EPA will continue to review new data and analyses to ensure that the Inventory reflects industry practices.

### **EPA Methane-Related Activities**

Since the 1990s, the EPA, in partnership with industry, has been working with great success to reduce methane emissions domestically through programs such as Natural Gas STAR, Ag STAR, the Coalbed Methane Outreach Program, and the Landfill Methane Outreach Program. These programs focus on removing market barriers and increasing the use of cost-effective emission reduction technologies.

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<sup>1</sup> These emissions percentages are from the U.S. Greenhouse Gas Inventory, which uses the methane global warming potential of 21 from the IPCC Second Assessment Report (SAR).

We also expect significant domestic methane emissions reductions as a co-benefit from Clean Air Act regulations including the Oil and Gas New Source Performance Standards for Volatile Organic Compounds. The EPA estimates that the Oil and Gas New Source Performance Standards, finalized in 2012, will result in up to 1.0 to 1.7 million tons of methane reduced annually.

### **President's Climate Action Plan**

Additionally, the President's Climate Action Plan issued in June of this year calls for broad federal activities to address climate change including the development of a comprehensive, interagency strategy to address methane emissions. The EPA is currently working with other agencies to assess emissions data, address data gaps, and identify opportunities to further reduce methane emissions through incentive-based programs and existing authorities.

### **Conclusion**

To conclude, reducing methane emissions is critical to mitigating the impacts of global climate change. We have made progress, but there is more to be done and the interagency strategy that the President's Plan calls for will put us on a solid path forward to realize even further carbon pollution reductions.

Thank you again for the opportunity to testify. I look forward to answering your questions.