IEAGHG Information Paper 2015-4; US actions to reduce methane emissions

This IP summaries a FACT SHEET: Administration Takes Steps Forward on Climate Action Plan by Announcing Actions to Cut Methane Emissions, issued by the White House on January 14th 2015. The full details and fact sheet itself can be found at http://www.whitehouse.gov/the-press-office/2015/01/14/fact-sheet-administration-takes-steps-forward-climate-action-plan-anno-1.

By issuing the fact sheet, the US Administration is announcing a new goal to cut methane emissions from the oil and gas sector by 40 – 45 percent from 2012 levels by 2025, along with a set of actions to put the USA on a path to achieve that goal.

Methane emissions accounted for nearly 10 percent of US greenhouse gas emissions in 2012, of which nearly 30 percent came from the production, transmission and distribution of oil and natural gas. Emissions from the oil and gas sector are projected to rise more than 25 percent by 2025 without additional steps to lower them. For these reasons, a strategy for cutting methane emissions from the oil and gas sector is an important component of efforts to address climate change.

Achieving the Administration's goal would save up to 180 billion cubic feet of natural gas in 2025, enough to heat more than 2 million homes for a year.

ACTIONS TO REDUCE METHANE EMISSIONS by the US EPA

The action plan by the US EPA can be found at:

http://www.epa.gov/airquality/oilandgas/pdfs/20150114fs.pdf.

This plan includes:

- *New Standards for Methane and Ozone-Forming Emissions from New and Modified Sources* - the US EPA have initiated the a rulemaking effort to set standards for methane and VOC emissions from new and modified oil and gas production sources, and natural gas processing and transmission sources. The US EPA will issue a proposed rule in the summer of 2015 and a final rule will follow in 2016.
- *New Guidelines to Reduce Volatile Organic Compounds* – the US EPA will develop new guidelines to assist states in reducing ozone-forming pollutants from existing oil and gas systems in areas that do not meet the ozone health standard and in states in the Ozone Transport Region. These guidelines will also reduce methane emissions in these areas. The guidelines will help states that are developing clean air ozone plans by providing a ready-to-adopt control measure that they can include in those plans.
- *Consider Enhancing Leak Detection and Emissions Reporting* – the US EPA *will* strengthen its Greenhouse Gas Reporting Program to require reporting in all segments of the industry. In addition to finalizing the updates to the program EPA has already proposed by the end of 2015, EPA will explore potential regulatory opportunities for applying remote sensing technologies and other innovations in measurement and monitoring technology to further improve the identification and quantification of emissions and improve the overall accuracy and transparency of reported data cost-effectively.

Other actions include:

- *Lead by Example on Public Lands* – the Department of Interior's Bureau of Land Management (BLM) will update old standards to reduce wasteful venting, flaring, and leaks of natural gas, which is primarily methane, from oil and gas wells. These standards, to be proposed in spring 2015, will address both new and existing oil and gas wells on public lands.
- *Reduce Methane Emissions while Improving Pipeline Safety* – the Department of Transportation's Pipeline and Hazardous Materials Safety Administration (PHMSA) will propose natural gas pipeline safety standards in 2015. While the standards will focus on safety, they are expected to lower methane emissions as well.
- *Drive Technology to Reduce Natural Gas Losses and Improve Emissions Quantification* – $15 million in funding for the Department of Energy (DOE) will be provided in the 2015/2016 budget to develop and demonstrate more cost-effective technologies to detect and reduce losses from natural gas transmission and distribution systems. Also a $10 million budget provision to launch a program at DOE to enhance the quantification of emissions from natural gas infrastructure for inclusion in the national Greenhouse Gas Inventory in coordination with US EPA.
- *Modernize Natural Gas Transmission and Distribution Infrastructure* – DOE will continue to take steps to encourage reduced emissions, particularly from natural gas transmission and distribution, including:
    - Issuing energy efficiency standards for natural gas and air compressors;
    - Advancing research and development to bring down the cost of detecting leaks;
    - Working with FERC to modernize natural gas infrastructure; and
    - Partnering with NARUC and local distribution companies to accelerate pipeline repair and replacement at the local level.

In the oil and gas sector there are several voluntary industry efforts underway to address these sources are, including USEPA's successful Natural Gas STAR Program[1]. The US EPA is launching a new partnership in collaboration with key stakeholders later in 2015.

Outside the oil and gas sector initiatives include:

- The US Department of Agriculture, USEPA and DOE, in partnership with the dairy industry, released a Biogas Opportunities Roadmap in August 2014 highlighting voluntary actions to reduce methane emissions through the use of biodigesters.
- The Bureau of Land Management released an Advanced Notice of Proposed Rulemaking (ANPRM) in April 2014 to gather public input on the development of a program for the capture and sale, or disposal, of waste methane from coal mines on public lands.

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[1] The Natural Gas STAR Program is a flexible, voluntary partnership that encourages oil and natural gas companies—both domestically and abroad—to adopt cost-effective technologies and practices that improve operational efficiency and reduce emissions of methane, a potent greenhouse gas and clean energy source. For information on the technologies and practices to reduce methane emissions from oil and gas systems, please visit http://www.epa.gov/gasstar/tools/recommended.html.