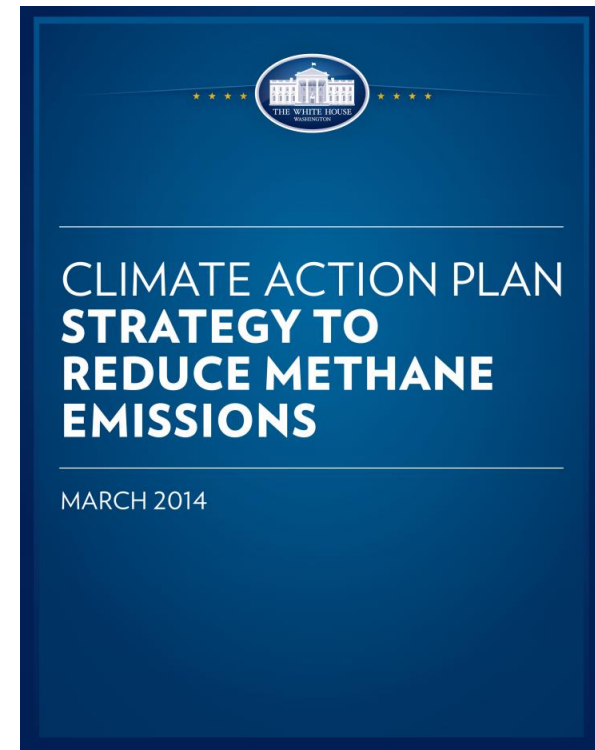


# Overview of EPA Oil and Gas Activities

March 2016

# Background

- ▶ **March 2014** – White House releases the *Strategy to Reduce Methane Emissions*
  - ▶ Outlined regulatory and voluntary actions in the oil and gas sector
  - ▶ International and domestic actions
- ▶ **January 2015** – Administration announces a new goal to cut methane emissions from the oil and gas sector by 40-45 percent from 2012 levels by 2025
  - ▶ Included series of regulatory and voluntary steps that EPA and other federal agencies are pursuing
- ▶ **March 2016** – Administration announces that EPA will begin developing regulations for methane emissions from existing oil and gas sources .
  - ▶ EPA will begin with a formal process to require companies operating existing sources to provide information to assist in the development of comprehensive regulations to reduce methane emissions.



# New Source Performance Standards (NSPS)

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- ▶ In August 2015, the EPA proposed to update its 2012 standards for new and modified sources in the oil and gas industry, adding methane to the pollutants they cover, along with additional processes and equipment.
- ▶ EPA's proposed updates would require owners/operators to:
  - ▶ Capture natural gas from the completion of hydraulically fractured oil wells
  - ▶ Find and repair leaks (fugitive emissions)
  - ▶ Limit emissions from new and modified pneumatic pumps
  - ▶ Expand coverage to limit emissions from several types of equipment used at natural gas transmission compressor stations and gas storage facilities
- ▶ EPA is reviewing more than 900,000 comments received on the proposed rule
- ▶ The agency anticipates issuing a final rule this spring.

# Control Technique Guidelines (CTGs)

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- ▶ In August 2015, the EPA also issued draft “Control Technique Guidelines” for reducing VOC emissions from existing equipment and processes in the oil & gas sector
- ▶ CTGs provide recommendations for state and local air agencies to consider in determining reasonably available control technology, or “RACT” for reducing emissions from covered processes and equipment.
  - ▶ Under the Clean Air Act, RACT applies ozone nonattainment areas that are classified as Moderate and above, and in states in the Ozone Transport Region
  - ▶ Affected areas and states would have to address the sources covered in the CTGs as part of state plans for meeting EPA’s ozone health standards.
  - ▶ The draft CTG includes detailed information on the costs of available controls to help states as they determine RACT for affected sources in their areas.
- ▶ EPA anticipates issuing final guidelines this spring

# EPA's Greenhouse Gas Reporting Program

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- ▶ EPA is collecting its fifth year of Greenhouse Gas Reporting Program (GHGRP) data from the oil and gas sector
  - ▶ Through this successful program, EPA collects annual greenhouse gas emissions data from facilities across the natural gas value chain that are above the emissions threshold for reporting
- ▶ EPA has addressed gaps in the GHGRP
  - ▶ Starting in reporting year 2016, new requirements for onshore petroleum and natural gas gathering and boosting activities, onshore natural gas transmission pipelines, completions and workovers of oil wells with hydraulic fracturing
- ▶ EPA is exploring opportunities to apply innovative monitoring technologies such as leak detection and remote sensing technologies
  - ▶ In January 2016, EPA proposed to add new monitoring methods for detecting leaks consistent with leak detection methods in the proposed NSPS and emission factors to be used in conjunction with these monitoring methods

# EPA's U.S. GHG Inventory

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- ▶ EPA makes annual updates to the Inventory of U.S. GHG Emissions and Sinks (GHG Inventory)
  - Official U.S. estimate submitted to UNFCCC
  - Expert, public, and international reviews of GHG Inventory estimates
- ▶ EPA annually reviews new data for potential updates to its emission estimates in the GHG Inventory
- ▶ Substantial amounts of new information available on the oil and gas sector
  - EPA's Greenhouse Gas Reporting Program
  - Research studies by government, academic, and industry researchers, and industry organizations
- ▶ The Draft GHG Inventory contains a number of important updates reflecting new and improved data
  - EPA is still reviewing feedback from extensive review and stakeholder outreach, and calculating estimates across the full 1990-2014 time series
  - Final GHG Inventory report (published by April 15) will contain the full time series

# Voluntary Efforts: Natural Gas STAR Methane Challenge

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- ▶ Methane Challenge expands the Natural Gas STAR Program
  - ▶ Specific, ambitious commitments
  - ▶ Transparent reporting through Subpart W of the Greenhouse Gas Reporting Program (with supplemental reporting)
  - ▶ Company-level recognition of commitments and progress
- ▶ To enhance flexibility, EPA proposed to offer two commitment options and welcomed stakeholder feedback:
  - ▶ Best Management Practice (BMP) Commitment
  - ▶ One Future Emissions Intensity Commitment
- ▶ The program covers onshore oil production and the entire value chain from onshore production through natural gas distribution
- ▶ EPA will launch the Program with founding partners tomorrow at the Global Methane Forum in Washington, DC

# Methane Challenge BMP Commitment Framework

Onshore Production	Gathering and Boosting	Natural Gas Processing	Transmission and Storage	Distribution
Pneumatic Controllers	Pneumatic Controllers	Reciprocating Compressors - Rod Packing Vent	Reciprocating Compressors - Rod Packing Vent	M&R Stations/City Gates
Equipment Leaks/Fugitive Emissions	Equipment Leaks/Fugitive Emissions	Centrifugal Compressors - Venting	Centrifugal Compressors - Venting	Mains – Cast Iron and Unprotected Steel
Liquids Unloading	Pneumatic Pumps		Equipment Leaks/Fugitive Emissions	Services – Cast Iron and Unprotected Steel
Fixed Roof, Atmospheric Pressure Hydrocarbon Liquid Storage Tanks	Fixed Roof, Atmospheric Pressure Hydrocarbon Liquid Storage Tanks		Pipeline Blowdowns between Compressor Stations	Distribution Pipeline Blowdowns
Pneumatic Pumps	Reciprocating Compressors - Rod Packing Vent		Pneumatic Controllers	Excavation Damages
	Centrifugal Compressors - Venting			



# Methane Challenge Annual Reporting

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- ▶ EPA will use GHGRP Subpart W data, plus non-confidential supplemental data provided by partners, to track progress in meeting source-specific commitments under the Methane Challenge Program
  - ▶ Data will be reported at the facility level, in line with Subpart W facility definitions
- ▶ EPA aims to minimize the reporting burden so Partner companies can focus resources on the implementation of methane-reducing activities
  - ▶ Plan to use streamlined data collection process in eGGRT for reporting
- ▶ Partner companies will start collecting data on designated Start Date (within six months of joining program)
  - ▶ Full calendar year data will be most valuable to tracking Program process
  - ▶ EPA will evaluate Partners reporting partial year data Program



# Methane Challenge Continuous Improvement

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- ▶ Partners are encouraged to expand their Program commitments at any time
  - ▶ In particular, Partners that join for a single emission source will be strongly encouraged to commit to additional source(s) over time
- ▶ To encourage innovation, the EPA will consider adopting new sources and additional BMPs
  - ▶ Partner companies can propose additional sources of interest and/or new BMPs for inclusion in the Program
  - ▶ The EPA will review information presented by Partners, as well as relevant publicly available information, and make decisions on a case-by-case basis
- ▶ For innovative mitigation actions that Partners would like to pilot before they are widely commercially available or adopted, the EPA will work with Partners to assess including them as Program BMPs

# International Efforts

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- ▶ EPA actively supports international efforts to quantify and reduce oil and gas sector methane emissions
- ▶ Climate and Clean Air Coalition (CCAC): Partnership of over 100 state and non-state partners to accelerate action to reduce short-lived climate pollutants (methane, HFCs, black carbon) across multiple sectors
  - ▶ CCAC Oil and Gas Methane Partnership (OGMP) is a voluntary international initiative targeted to global upstream industry leaders who will take on comprehensive commitments to 1) quantify and reduce emissions from nine core sources and 2) publicly disclose progress
  - ▶ Launched September 2014 and administered by UNEP
  - ▶ Seven partners will submit first reports Spring 2016
- ▶ Global Methane Initiative: Partnership of over 40 countries dedicated to advancing cost-effective, voluntary methane mitigation, including in the oil and gas sector
- ▶ Natural Gas STAR International: Expands EPA's domestic Natural Gas STAR Program to include companies with international operations
  - ▶ 25 partners across the oil and gas value chain

# Questions?

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