AXPC Members are Taking Action to Meaningfully Reduce Methane Emissions

AXPC, representing large independent American oil and gas producers, supports innovative, collaborative solutions that lower greenhouse gas (GHG) emissions, including methane, while meeting the world's growing need for abundant, low cost, reliable energy. American oil and natural gas is critical to our national security and economic prosperity; it is important that public policymakers recognize that oil and natural gas production and development underpins our standard of living.

Upstream oil and gas operations are highly regulated for volatile organic compounds (VOCs) and methane emissions; our companies work continually to maintain compliance with all applicable local, state, and federal regulations. AXPC members have long worked to ensure their operations minimize impacts on air quality, including taking on voluntary emission reduction initiatives. And, our companies aim to bring oil and natural gas to market in a sustainable manner.

Upstream oil & natural gas producers, by deploying new innovative technologies, have dramatically reduced methane emissions associated with our operations while increasing production:

- According to US Environmental Protection Agency (EPA), the United States is a world leader in protecting the environment and reducing greenhouse gas emissions while producing affordable energy. From 2005 to 2018, total U.S. energy-related CO_2 emissions fell by 12 percent. In contrast, global energy-related emissions increased nearly 24 percent from 2005 to 2018.

- Methane emissions from oil and natural gas systems are down 23 percent since 1990, according to the 2020 edition of EPA's Inventory of U.S. Greenhouse Gas Emissions and Sinks. Technologies that include more advanced leak detection equipment and innovative methane reduction methods are driving this decrease in emissions during a time when oil and natural gas production increased dramatically. Some of these methods include: instrument air use for pneumatic controllers instead of natural gas, ensuring proper maintenance and operation of gas-powered pneumatic controllers, and properly operating flares.
    - **West Texas, New Mexico**: In the Permian Basin, methane emissions relative to production fell nearly 57 percent from 2011 to 2017, even as energy production increased 125 percent.

    - **Colorado**: In the Denver-Julesburg Basin, methane emissions fell by more than 40 percent between 2011 and 2017, while production increased by nearly 400 percent.

    - **South Texas**: In the Eagle Ford Basin: methane emissions relative to production fell nearly 70 percent from 2011 to 2017, while production grew 130 percent.

    - **Pennsylvania, Ohio, and West Virginia:** In the Appalachia Basin: methane emissions are down 82 percent from 2011 to 2017, while gas production increased 379 percent.

US independent producers meaningfully reduce methane emissions with both immediate actions, and a long-term focus on reducing environmental impacts, including:

- Expanding leak detection and repair; replacing or upgrading high-emitting components (e.g. pneumatic controllers); enhanced facility design for new assets; improved management strategies for older assets; and reducing flaring.

- Collaborating with academics, environmental nonprofits, policy leaders, elected officials and other companies to develop innovative solutions that address concerns of communities and the environment.

- Investing in infrastructure and eliminating venting and flaring wherever possible by directing the gas that flows back during well completion directly into pipelines.

- Developing metrics to track and reduce emissions intensity.

AXPC Members are on the leading edge of environmental programs and partnerships aimed at continuously improving the industry's environmental performance

- **The Environmental Partnership:** All AXPC member companies are a part of The Environmental Partnership, a growing coalition of companies committed to share best practices to identify and reduce emissions using proven, cost-effective controls targeting three of the most significant sources of emissions identified by EPA: detecting and fixing leaks; replacing high-emitting equipment; and, reducing emissions from well unloading.

- **The One Future Coalition:** This collaborative effort among companies in production, distribution, and transmission of natural gas, has set an aggressive target of a 1 percent leak rate by 2025. Several AXPC members are currently members of the coalition, and others have set methane emission reduction targets commensurate with a 1 percent goal.

- **Texas Methane and Flaring Coalition:** This is a voluntary coalition of companies working together to develop industry-led solutions to better assess methane emissions and flaring in Texas. The organization, which includes several AXPC companies, is identifying and promoting operational and environmental recommended practices to minimize flaring and methane emissions.

- **The EPA's Natural Gas STAR Program and Methane Challenge:** AXPC members were some of the original companies reporting to EPA's premiere emissions reduction program, dating back to 1994. The programs within the Natural Gas STAR program have reduced more than 1.63 TCF of methane since that time through implementing cost-effective technologies and practices.

- **Innovations in Methane Monitoring:** AXPC members have implemented new technologies in aerial, satellite, and ground-based monitoring of methane emissions from production facilities. One example among many is Project Astra, a West-Texas based collaborative effort with AXPC members in the Permian, the Gas Technology Institute, The University of Texas at Austin, and the Environmental Defense Fund seeks to identify leaks as they happen with a network of methane-sensing monitors. In another collaboration with an AXPC member, Kairos Aerospace uses aircraft to detect emissions and remote sites so they can be repaired quickly. Other AXPC companies are deploying mobile sensors at their production facilities that provide emissions data into a network designed to optimize leak detection activities for their facilities.