# AXPC Approach on Greenhouse Gas Emission Technology and Innovation

**Objectives of technology and innovation policy:**
Public sector innovation policy may be advanced to speed oil and gas end-use emission reduction technology to market by:

- Conducting and supporting primary scientific research necessary to develop new technologies.
- Demonstrating the potential of new technologies in critical applications.
- Incentivizing commercial investment in promising technologies.
- Utilizing new technologies in public sector applications.

**The Technology Opportunity**
Oil and natural gas are essential to supporting modern life and to improving standards of living around the globe. Oil and gas end-use emission reduction technologies are needed across the spectrum of daily life in order to meaningfully address climate change. AXPC recognizes the need for a public-private partnership to create a broad range of large scale, low-cost greenhouse gas emissions reduction technologies across the economy. These technologies will need to involve new ways to produce or consume oil and natural gas that are more carbon efficient than current practice.

AXPC recognizes that to be credible advocating for programs to develop technology to minimize the emissions associated with consumption of oil and gas, we also must produce oil and gas with minimal direct emissions.

**To address emissions in upstream operations, AXPC and members advocate for and engage in:**

- A philosophy of continuous improvement in our operations, including a commitment to sharing best practices through programs such as The Environmental Partnership.

- Deployment of innovative leak detection strategies, such as remote sensing to speed identification and addressing of fugitive emissions.

- Development of shared emissions metrics, harnessing our natural competitiveness to drive improved performance across our industry.

- Partnering with regulators to harmonize and develop regulations and allow for new technologies to be applicable to achieving compliance as they become available.

- Reduction of on-site emissions and flaring by deploying beneficial use technologies and utilizing advanced planning practices.

**Since upstream companies do not have direct control over the vast majority of emissions associated with the lifecycle of our products, AXPC will advocate for oil and natural gas end-use emission reduction technology policies meeting the following principles:**

- **Policy should include all forms of GHG emissions reduction, including research, development, and demonstration related to natural gas or oil that could achieve GHG emissions reduction throughout the cycle of its production, transportation, and consumption.**
    - Recognize the range of carbon-mitigation technologies and emissions sources with a focus on the largest opportunities in all emitting sectors, such as agriculture, manufacturing, and power generation.

- **Government has a unique and historic role to facilitate the early stages of pre-commercial development with pure science research.**
    - Utilize research organizations that have a proven track record of advancing technologies, such as or including US National Laboratories, US Government Advanced Research Projects Agencies, and institutions of higher education.

    - Support private sector RD&D for large-scale GHG emissions reductions with economy wide policy incentives.

- **The private sector must fulfill its role of commercializing technologies by determining where, when, and how to best to deploy capital.**
    - Ensure that oil and natural gas end-use emission reduction technologies have access to deployment incentives, including renewable portfolio standards, clean energy standards, investment tax credits, production tax credits, or other incentives where these innovations can demonstrate material GHG emission reductions.

    - Support access to government procurement opportunities for new technologies or the products they create including electricity, steel, concrete, and other energy-intensive products.

    - Support demonstration grants for new technologies that demonstrate novel approaches including expanded market applicability or lower cost potential.

- **Support the research, development, and demonstration of Carbon Capture Utilization and Storage (CCUS) technology.**
    - Facilitate permitting of new CCUS facilities and supporting infrastructure.

    - Allow CCUS to be counted as avoided emissions in any GHG control program, including offsets.

    - Address the liability challenges of long-term storage of $CO_2$.

    - Mitigate the high costs associated with early deployment of CCUS, through expansion of policies such as 45Q to include fully refundable attributes, as well as extending the duration of tax credits to include more of the project useful life.