



## Evaluation of Innovative Methane Detection Technologies

### WHAT IS ITRC?

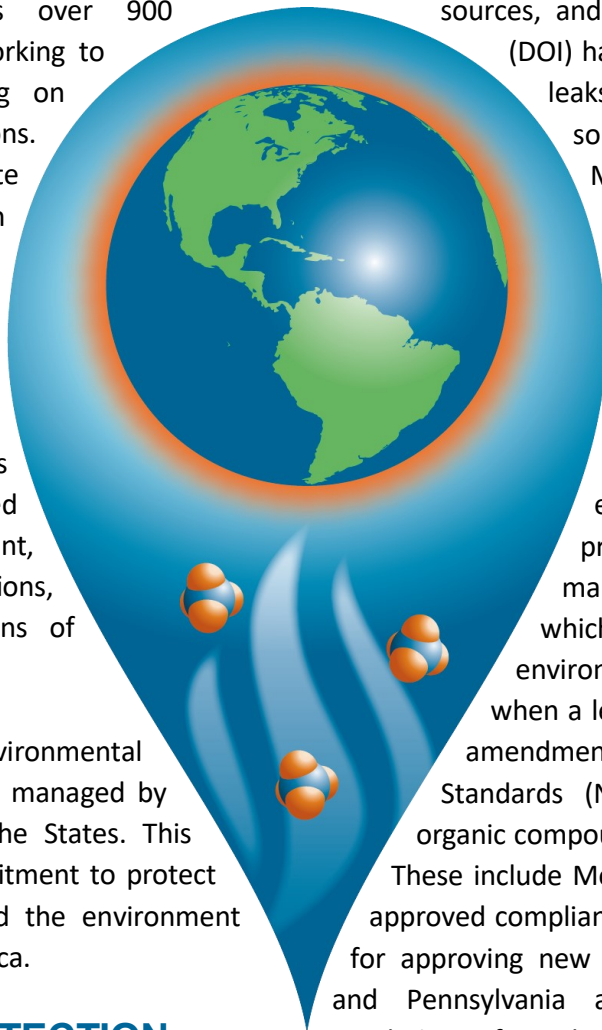
The Interstate Technology Regulatory Council (ITRC) is a state-led, public-private coalition dedicated to reducing barriers to the use of innovative environmental technologies. ITRC represents over 900 individuals, across 50 states, working to produce guidance and training on innovative environmental solutions. Bringing together teams of state and federal regulators along with private, academic, and stakeholder experts, ITRC broadens and deepens technical knowledge and reduces barriers to expedient regulatory approval. Since 1995, the collective success of this coalition has generated huge benefits to the environment, inspired new technical innovations, and saved hundreds of millions of dollars.

ITRC is a program of the Environmental Research Institute of the States, managed by the Environmental Council of the States. This partnership is based on a commitment to protect and improve human health and the environment across the United States of America.

### ABOUT METHANE DETECTION

Several states have passed or are considering methane emissions regulations related to oil and natural gas

production and distribution. Moreover, the U.S. Environmental Protection Agency (EPA) has finalized regulations for methane leaks at new oil and gas sources, and The Department of the Interior (DOI) has also adopted rules for methane leaks at new and existing oil and gas sources on Bureau of Land Management (BLM) lands. Historically, gas detection technologies used to regulate fugitive emissions in the oil and gas sector had to comply with EPA's Method 21 Requirements. With the advent of optical gas imaging (OGI) technologies, EPA established an alternative work practice (AWP) to allow inclusion of manually operated infrared cameras, which provide visual evidence, in most environmental conditions, of a gas plume when a leak is present. EPA has finalized amendments to New Source Performance Standards (NSPS) on methane and volatile organic compounds (VOC) for oil and gas sources. These include Method 21 and OGI technologies as approved compliance methods, as well as the option for approving new detection technologies. Colorado and Pennsylvania allow similar options in their regulation of methane and VOC from oil and gas operations.



Innovators are currently developing new technologies that go beyond “sniffer” (Method 21 approved) and OGI technologies. For example, the Advanced Research Projects Agency-Energy’s (ARPA-E) Methane Observation Networks with Innovative Technology to Obtain Reductions (MONITOR) program is supporting development of a wide range of extremely sensitive and low-cost optical and chemical sensing technologies. These technologies will incorporate state-of-the-art dispersion modeling techniques to pinpoint and quantify the leak source. Many of these technologies will also have the capability to monitor sites remotely and/or continuously. There is currently no standard methodology to evaluate performance of new technologies like these.

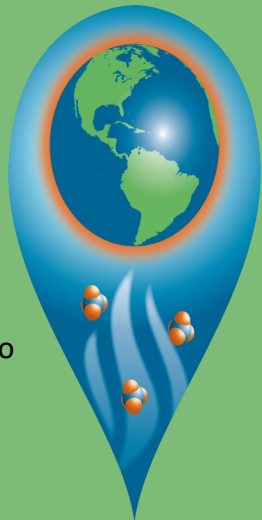
## THE METHANE DETECTION PROJECT

This project began in early 2016 and will run for two to three years. The ITRC team is working to produce a web-based Technical and Regulatory Guidance Document that will establish, if possible, a national consensus for evaluating and comparing the effectiveness of methane-detection and characterization technologies. The team will assess the performance of state-of-the-art methane detection technologies, as well as regulatory barriers that might hinder the use of a standardized evaluation methodology.

### JOIN THE TEAM!

The Methane Detection Project began in the March 2016!

By joining the team, you will help write the guidance document, develop outreach efforts, and identify solutions to detect and reduce methane emissions. To join, visit <http://itrcweb.org/Membership/>



### UPDATE STATUS

The guidance document went out for external review in January 2018, and will be publicly available in September 2018. The team will be conducting outreach efforts following the release of the document.

## Team Leaders

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