

## MONITOR Field Test Site

ARPA-E's MONITOR (Methane Observation Networks with Innovative Technology to Obtain Reductions) program is investing over \$30 million in technologies to accelerate the development of low-cost methane sensing systems that have the ability to quantify and locate fugitive methane emissions resulting from the production and transportation of natural gas. In order to evaluate the performance of each MONITOR technology to locate and quantify fugitive methane emissions, the MONITOR Field Test Site will develop a robust test facility that simulates real-world natural gas operations—at the wellpad and further downstream. Specifically, the MONITOR Test Site supports the operation of a multi-user field test site for MONITOR performers to validate their performance under realistic use-case scenarios—and meet the MONITOR program's required metrics related to localization, quantification, communications and cost. Data generated during the field tests will demonstrate the performance capabilities of the technologies and could be used by the MONITOR performers to accelerate the commercialization and/or regulatory approval of their technologies.

## PROJECT DESCRIPTION

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### **Colorado State University – Fort Collins, CO**

*Test Facility and Proving Ground for ARPA-E MONITOR - \$3,533,836*

Colorado State University (CSU) will lead the development of a test site facility at CSU where MONITOR project teams can evaluate their methane sensing technologies. The CSU team will design, construct, and operate a test site that includes multiple sub-facilities simulating a broad range of natural gas production and transmission equipment and operations including: dry and wet gas production, midstream compression, metering and regulating stations, and underground pipelines. The site will feature controlled methane emissions that are realistic in location, frequency, duration, composition, and volume. The CSU site will be located outside of operating oil and natural gas basins allowing for near-complete control of background and onsite emissions. The CSU team includes experts in emissions measurements, natural gas systems testing and atmospheric dispersion modeling.