

REQUEST FOR INDUSTRY PARTICIPATION

Quantification of Methane Emissions from Marginal (Low Producing) Oil and Gas Wells

(DOE NETL Project DE-FE0031702)

Study partners, GSI Environmental Inc. and the Energy Institute at Colorado State University, are soliciting industry participation in an important study sponsored by the U.S. Department of Energy's Office of Fossil Energy to inform the U.S. EPA and others on the scale of methane emissions from low-producing oil and gas wells, as pertinent to EPA's *New Source Performance Standards* (40 CFR Part 60, Subpart OOOOa) and related fugitive emissions monitoring requirements. The data collected in this study will help address critical knowledge gaps related to wells that produce less than 15 barrels of oil-equivalent per day.

Access to additional field sites is needed to ensure that results of the study are representative of diverse marginal well populations across the continental U.S.

The objective of the project is to collect and evaluate representative, defensible, and repeatable data from low-producing oil and gas well sites and draw meaningful, quantifiable conclusions on the extent of methane emissions from such sites throughout the continental U.S. The project includes the following major tasks.

Data Source Status Assessment (Complete): Key data gaps have been identified based on a thorough review of published sources. By way of a confidential survey of operators, well site production and equipment information have been compiled and analyzed for over 86,000 marginal wells located in 29 basins and 23 states. Well sites have been preliminarily classified based on key distinguishing characteristics potentially related to emissions.

Workplan Preparation (Complete): Field site selection criteria and the overall approach to data collection and evaluation processes have been established. Workplans include emissions screening and measurement protocols, site activity data requirements, and health and safety requirements.

Regional Field Campaigns: Field campaigns are being conducted to identify, characterize, quantify, and compare methane emissions among marginal well sites in multiple regions. *On-site* access, with information provided by host operators, is a critical component of the field program in order to accurately characterize the nature and representativeness of conditions observed in the field versus at other times, i.e., the expected variability in conditions with respect to the potential for emissions.

Extensive geographic coverage of diverse marginal well site populations will allow field results to be extrapolated in order to estimate emissions from comparable sites in other oil and gas producing areas, as characterized by the results of the initial operator survey. The key to this approach is a focused, statistically based selection of representative field sites while maintaining the confidentiality of specific measurement locations and the anonymity of their operators.

Data Processing, Analysis, and Reporting: Field data will be validated per applicable quality assurance/quality control procedures. Results will be sorted into related clusters representing distinct well site categories with respect to emissions, product type, production rate, equipment counts, etc., as appropriate. Probability distributions will be assessed and appropriate statistics calculated to develop equipment-specific, process-specific and/or site-wide methane emission factors, as needed.

The combined study results over all investigated regions, including operator-provided activity data and the extent and magnitude of key emissions sources, will be analyzed and interpreted as a whole in order to assess regional differences and, if feasible, make predictions regarding marginal vs. non-marginal well site emissions in other oil and gas producing regions not included in this study.

PLEASE CONTACT US FOR MORE INFORMATION

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