

STATEMENT OF PROJECT OBJECTIVES

Methane Emissions Reduction Program for Marginal Conventional Wells - Colorado

A. Objectives

The objective of this project is to mitigate methane emissions from marginal conventional wells (MCWs) by assisting operators/well owners to voluntarily and permanently plug and abandon MCWs on non-Federal lands and measure methane emissions from MCWs¹ both pre- and post-plugging operations. This project may also support elements of environmental restoration required for full compliance with applicable State or Federal well plugging and abandonment standards and regulations. The project is expected to result in methane and other greenhouse gas emission reductions and provide environmental benefits through the restoration of MCW pads. These activities are expected to mitigate legacy air pollution from MCWs in low-income and disadvantaged communities and provide potential benefits to such communities, including improved ambient air quality, surface and groundwater quality, climate resilience, and human health as well as creation of high-quality jobs.

B. Scope of Project

The project will develop a process and methodology to identify and prioritize MCWs for permanent plugging and abandonment, monitor (via discrete measurements) methane emissions from MCWs, and support elements of environmental restoration required for full compliance with applicable State or Federal well plugging and abandonment standards and regulations. Monitoring can include detection and measurement of methane emissions used to provide a preliminary screening of emissions from MCWs as a mechanism to inform plugging prioritization. Monitoring must include measurement of methane emissions (in accordance with the methane measurement guidelines for MCWs provided by DOE or alternative measurement guidelines that are in general alignment with the DOE guidelines and are reviewed/approved by DOE prior to implementation) prior to and following the plugging and abandonment of any MCW, quantification of the methane emissions mitigated for plugged wells, and verification that plugged wells are no longer emitting methane emissions as required for full compliance with applicable State or Federal well plugging and abandonment standards and regulations. Stakeholder engagement and outreach are also key to this project, and it is anticipated that the outcomes of the project will result in substantial benefits with specific impact on disadvantaged communities.

C. Tasks and Subtasks to Be Performed

The project consists of six tasks, with Tasks 1-2 focusing on the administrative and community engagement aspects of the award and Tasks 3-6 focusing on efforts to define the prioritization of MCWs for plugging, measuring pre- and post- plugging methane emissions from MCWs, plugging MCWs, and conducting elements of environmental restoration required for full compliance with applicable State or Federal well plugging and abandonment standards and regulations.

¹ Marginal Conventional Well – Idle or producing onshore vertical or slightly deviated oil or natural gas well (excludes highly deviated or horizontal wells) with a known owner / operator producing less than or equal to 15 barrels of oil equivalent per day (BOED) and/or 90 thousand cubic feet (Mcf) gas per day (1 BOE = 6 Mcf) over the prior 12-month period.

Task 1.0 – Project Management and Planning

The Recipient will manage and administer activities in order to achieve project objectives. The activities will include tracking and disseminating information regarding the performance of the project, as well as administrative tasks associated with Government reporting.

An initial Project Management Plan (PMP) will be provided within ninety (90) days after the initial award. Revised PMPs will be submitted when major project changes are proposed, with less significant changes documented in the submitted Quarterly Progress Reports (QPR).

Task 2.0 – Stakeholder Engagement and Community Benefits

Subtask 2.1 – Community Benefits Plan (CBP)

The Recipient provided a CBP including relevant information on Community and Labor Engagement, Investing in Job Quality and Workforce Continuity, Diversity, Equity, Inclusion, and Accessibility, and Justice40 Initiative. The Recipient will coordinate activities in order to effectively accomplish the work identified by the CBP and its associated milestones. The Recipient, in collaboration with the NETL Project Manager, will update the CBP when substantial changes are necessitated. The Recipient will ensure that the CBP, as well as the costs, implementation efforts, key decisions and results of the efforts are appropriately documented throughout the project period.

The results and status of the CBP-related activities will be provided as an element of performance during project reviews, in quarterly progress reports, as part of the project final report, and as otherwise requested by the NETL Project Officer or their designee.

Subtask 2.2 – Stakeholder Outreach and Engagement

To maximize the impact and transparency of the project, the Recipient will solicit input from and share process information with local and other State agencies, Tribal Governments, industry stakeholders, and the public regarding the identification and prioritization of MCWs to be permanently plugged, methods to monitor methane emissions associated with MCWs, elements of environmental restoration required for full compliance with applicable State or Federal well plugging and abandonment standards and regulations, and any other processes the Recipient will use to conduct outreach and engagement.

The Recipient will coordinate and collaborate with appropriate local and other State agencies (e.g., State agencies, municipalities, local Governments) to achieve the objectives of the project. If a Tribal Government exists within State borders and MCWs are located on Tribal land, the Recipient will coordinate with the Tribal Government(s) or other types of relevant bodies for the identification, prioritization, measuring methane emissions from MCWs, plugging of MCWs, and environmental restoration activities if applicable.

Subtask 2.3 Website Development and Maintenance

The Recipient is required to develop and maintain a public website, or leverage a pre-existing website, to share information related to the overall project activities being conducted, and the results of those activities.

Subtask 2.4 Data Sharing of Community Benefits Information

The Recipient will update the public website developed in Subtask 2.3 with relevant community benefits information as outlined in the CBP.

This website will be updated to include any changes to community benefits information at a minimum of one time a month.

Task 3.0 Prioritization of MCWs

Subtask 3.1 – Well Prioritization Process

The Recipient will develop a process and methodology to: identify and prioritize MCWs for plugging, measure methane emissions, and support elements of environmental restoration required for full compliance with applicable State or Federal well plugging and abandonment standards and regulations.

As part of the process and methodology, it is expected that the State should engage with operators/well owners to explain: the nature and aspects of the program, how to indicate interest in participating in the program, how the State will prioritize the wells for which the operators/well owners have expressed interest to be plugged and abandoned, and what activities will be allowable as part of environmental restoration included within applicable abandonment standards and regulations.

The prioritization process will include, but not be limited to, the consideration of the likely impact of the plugging and abandonment of a given well on the following criteria (primary goal of prioritization will focus on maximizing the amount of methane emissions mitigated):

- methane and other potential greenhouse gases emissions, with priority given to the higher methane emitters based on pre-existing data or initial screening of methane emissions;
- proximity to disadvantaged communities as identified by the Climate and Economic Justice Screening Tool (CEJST); and
- location of the MCW on Tribal land.

The Recipient may also consider, but is not limited to the following criteria:

- current production rates at the MCW;
- potential impacts of well plugging on small businesses;
- impact on access to oil and gas within disadvantaged communities where oil and gas are not otherwise commercially available;
- landowner and operator agreements;
- potential impacts on surface and groundwater quality and flood resilience;
- potential climate and human health impacts;
- potential risk of the well becoming orphaned if not plugged;
- potential post-plugging land use; and
- other State priorities in the prioritization process.

The prioritization process should contribute to meeting the objective that 40 percent of the overall economic, environmental, and other benefits flow to disadvantaged communities.

Within this Task, the Recipient will also identify requirements for operators/well owners to be eligible to participate in the program in accordance with all necessary state requirements and local requirements for activities of this type.

Subtask 3.2 – Well Prioritization Data Sharing

The Recipient will update the public website developed in Subtask 2.3 to report information on the process and status of identifying and prioritizing MCWs to be permanently plugged. This website will be updated to include any changes to the prioritization process, methodology and results at a minimum of one time a month.

Task 4.0 Measuring Methane Emissions at MCWs

Subtask 4.1 – Methane Emissions Measurements

The Recipient will allocate funds to operators/well owners for methane measurements at MCWs.

Monitoring must include measurement of methane emissions prior to and following the plugging and abandonment of any MCW (in accordance with the methane measurement guidelines for MCWs provided by DOE or alternative measurement guidelines that are in general alignment with the DOE guidelines and are reviewed and approved by DOE prior to implementation), quantification of the methane emissions mitigated for plugged wells, and verification that plugged wells are no longer emitting methane emissions as required for full compliance with applicable State or Federal well plugging and abandonment standards and regulations.

A Methane Measurement Plan that outlines the Recipient's approach to measure methane emissions before and after well plugging and abandonment must be submitted to DOE prior to its implementation (See Deliverables Section).

In the event that a Recipient proposes to use alternative measurement guidelines as a basis for their Methane Measurement Plan, those guidelines must be in general alignment with the DOE Methane Measurement Guidelines. A copy of the proposed alternative guidelines as well as a draft of the Recipient's Methane Measurement Plan (based on those alternative guidelines) must first be submitted directly to the DOE Project Officer for review and approval. If approved, the Methane Measurement Plan (based on the alternative guidelines) must then be submitted as a formal project Deliverable (See Deliverables Section).

Any proposed Methane Measurement Plan (based on alternative guidelines) should include at a minimum: 1) Description of the proposed approach, equipment, and verification that the approach meets the minimum detection limit. (Verification by instrument manufacturer's specifications and/or field testing and demonstration as reported in peer-reviewed publication.); 2) Inclusion of requirement to meet the minimum requirements for a qualified measurement specialist; 3) A quality assurance (QA)/quality control (QC) plan to verify the precision of the selected methodology; 4) Site safety plan.

Monitoring can include detection and measurement of methane emissions used to provide a preliminary screening of emissions from MCWs as a mechanism to inform plugging prioritization. Methane emissions measurements associated with screening may consider, but are not required to follow, the methane measurement guidelines for MCWs provided by DOE.

The Recipient will use this data to quantify the amount of methane mitigated by each plugging project as well as aggregating data for all plugging efforts under the program to determine and report total methane emissions mitigated for the program overall.

Subtask 4.2 – Data Sharing on Emissions Reductions

The Recipient will update the public website developed in Subtask 2.3 to report data on the methane emissions measured. The website will include the following information: well locations, estimated annual reduction of methane emissions from each plugged well, and the total estimated annual reduction of methane emissions from all plugged wells. The website will be updated to include this data at a minimum of one time a month.

Task 5.0 – Plugging MCWs on Non-Federal Land

Subtask 5.1 – Well Plugging

The Recipient will allocate funds to operators/well owners for the purpose of permanently plugging MCWs on non-Federal land in their state, utilizing the prioritization of MCWs developed in Task 3.0 as enabled by willingness of operators/well owners of prioritized wells to voluntarily participate in the plugging program. Well-plugging activities may include:

- Preparation of the well pad to permanently plug and abandon the well;
- Removal of wellbore casing and other associated equipment or infrastructure;
- Placement of cement plugs in the borehole;
- Excavation around the well head and capping of the well prior to surface restoration; and
- Support of activities necessary for well plugging.

The Recipient will require well plugging contractors hired by the State or the operators/well owners to permanently plug wells under this program to meet or exceed applicable State or Federal well plugging and abandonment standards and regulations.

Subtask 5.2 – Data Sharing on Well Plugging

The Recipient will update the public website developed in Subtask 2.3 to report data associated with each plugged well. The website will include the following for each well location: operator/well owner, well type (e.g., oil, gas), production rate prior to plugging, total cost of well plugging, and whether the plugged well is located in a disadvantaged community as identified using the CEJST. In addition, data on the website will be aggregated to include the total number of wells plugged, the total number of plugged wells of each type, the total production rate of plugged wells prior to plugging, total costs of well plugging, and number of wells plugged in disadvantaged communities as identified by the CEJST. The website will be updated to include this data at a minimum of one time a month.

Task 6.0 – Well Abandonment and Environmental Restoration of Well Pads

Subtask 6.1 – Well Abandonment Related Environmental Restoration

The Recipient may allocate funds to operators/well owners for the purpose of conducting elements of environmental restoration required for full compliance with applicable State or Federal well plugging and abandonment standards and regulations.

Subtask 6.2 – Data Sharing on Environmental Restoration

The Recipient will update the website developed in Subtask 2.3 to report data associated with environmental restoration activities, if applicable. The website will include the following for each well location: environmental restoration activities performed at each well pad, acreage of reclaimed and restored land, and cost of environmental restoration activities. In addition, data on the website will be aggregated to include the total acreage of reclaimed and restored land and total cost of environmental restoration activities completed. The website will be updated to include this data at a minimum of one time a month.

D. Deliverables

The periodic and final reports will be submitted in accordance with the “Federal Assistance Reporting Checklist” and the instructions accompanying the checklist. In addition to the reports specified in the “Federal Assistance Reporting Checklist”. The Recipient will provide the following deliverables to the NETL Project Manager (identified in Block 15 of the Assistance Agreement as the Program Manager).

Task/Subtask Number	Deliverable Title	Due Date
1.0	Project Management Plan	Due 90 days post award and updated as necessary throughout the project.
2.0	Community Benefits Plan	Updated throughout the project at any point at which substantial change to the document is necessitated.
3.0	Marginal Conventional Well Prioritization	Submitted 6 months post award and updated as necessary throughout the course of the project.
4.0	Proposed alternate methane measurement guidelines and Methane Measurement Plan	Submitted directly to DOE Project Officer for review and approval prior to formal submission of Methane Measurement Plan (below)

4.0	Methane Measurement Plan	Submitted to FITS@netl.doe.gov prior to use / implementation under the project
2.0 – 6.0	Public website with data on wells plugged, methane emissions, environmental restoration, and benefits/impacts of the completed work.	Ongoing. Updated monthly

E. BRIEFINGS/TECHNICAL PRESENTATIONS

The Recipient will prepare detailed briefings for presentation to the NETL Project Manager at their facility located in Pittsburgh, PA, Morgantown, WV, Albany, OR, or via WebEx or Microsoft Teams. The Recipient will make a presentation to the NETL Project Manager at a project kick-off meeting held within ninety (90) days of the project start date. At a minimum, annual briefings will also be given by The Recipient to explain the plans, progress, and results of the technical effort, and a final project briefing at the close of the project will also be given.