**CT RC&D Climate Smart Agriculture Grant Narrative**

Within this document, please answer **ALL 17** questions below regarding the project for which you are applying. Please include your response beneath each question and **DO NOT** delete the questions. This Grant Narrative document may not exceed **10 pages** (including the questions.) We strongly suggest applicants place equal weight per question.

**Introduction and Overview**

1. Introduce yourself and your organization to the reviewers. Include information such as: an overview of your history and mission, how long you’ve been in business, a brief description of agricultural experience/background, and your long-term farming plans.
2. Provide an overview of your operation that includes growing methods, what you produce and how many acres are in production on your farm. How has this changed over the years, and why?
3. Have you had any previous experience/partnerships with CT RC&D? If so, how?

**Project Explanation**

1. What impact(s) has climate change had on your farm?
2. What climate smart practice supported by this grant **(on-farm energy projects (energy efficiency & renewable energy) and/or soil health equipment and practices)** do you plan to implement to mitigate that impact on your farm? Include the goal and purpose of your proposed project.
3. For Soil Health projects, please indicate whether you have, or are currently, working with USDA NRCS for technical or financial assistance. If so, please describe.
4. Why are you choosing this specific practice for your project and what is its importance to your farm operation? Please include how your project is innovative.
5. What area of your farm (percentage, acreage) will this project affect?
6. Will the implementation of this project benefit other farms? If so, please provide information such as: what farm(s), how it will benefit, acreage affected, etc.
7. What is your long-term (3-5 years) plan for continuation of the proposed project or practices beyond the grant period?

**Project Budget**

1. How will the grant funds be used to implement the project?
2. Will there be staff/volunteer time dedicated to implementing/installing this project? If so, provide detail.

**Project Impact**

For the purposes of this grant, an impact is defined as an objective and specific result that can be quantitatively measured and reported. In the questions below, please consider one or more impacts that you strive to achieve through completing this project. We encourage you to be as precise and detailed as possible, and to consider impacts that are **measurable**, realistic, achievable, and can be tracked and reported as results to CT RC&D in semi-annual and final reporting.

**EXAMPLES OF MEASURABLE PROJECT IMPACTS**

**Soil Health Equipment and/or Practice Projects**

In addition to providing pre-and post- project implementation soil health testing results, please provide measurable data such as acres impacted, liters of manure reduced, etc. The [COMET-Planner](http://comet-planner.com/) is a tool to evaluate the potential carbon sequestration and greenhouse gas reductions from adopting NRCS Conservation Practices. We strongly recommend reporting this value for your soil health project. Below is an example of how using COMET-Planner can estimate carbon sequestration and greenhouse gas reductions by implementing no-till practices:

*Per an NRCS farmer study, the average farm uses over 6 gallons of diesel fuel per acre per year. Implementing no-till requires less than 2 gallons of fuel per acre per year. Purchasing a \_\_\_\_\_\_\_\_ will enable a 42-acre farm to reduce an estimated 252 gallons of diesel to 84 gallons. This will provide both environmental and economic savings. One gallon of diesel fuel emits 22.44 pounds of CO2 when combusted, so a 42-acre farm implementing no-till will save an estimated 3,770 pounds of CO2 from being emitted per year. Also, at an estimated $4.6/gallon of diesel fuel, a 42-acre farm will save $773 in annual diesel costs.*

**Energy Projects**

To determine the impact of implementing an on-farm energy efficiency and/or renewable energy project, we strongly recommend you estimate and report **both** the energy units (gallons of fuel, kWh saved or produced, Therms, etc.) and capital saved annually. Energy units of savings can be converted on EPA’s [Greenhouse Gas Equivalencies Calculator | US EPA](https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator) to calculate the tons of carbon dioxide being reduced as a result of project implementation. Below is an example of how using US EPA’s Greenhouse Gas Equivalencies Calculator can estimate energy units as tons of carbon dioxide being reduced by replacing fluorescent bulbs with LED bulbs:

*Changing 52 two-lamp fixtures from T-8 fluorescent bulbs to linear LED bulbs saved 6,666 kWh and $624 in energy annually, and another 84 T-8 fluorescent bulbs in different fixtures to linear LEDs saved 2,232 kWh and resulted in $336 in energy savings annually. According to the EPA’s Greenhouse Gas Equivalencies Calculator, an estimated 6.3 metric tons of Carbon Dioxide emissions will be reduced annually.*

1. By implementing the proposed project/practice, what **measurable result(s**) do you expect to observe or achieve? Please provide **specific estimated quantities** (carbon emission reduction, increased production, decreased fertilizer application, decreased electricity usages, reduction in water usage).
2. List the **tools and/or methods** you will use to measure those results (COMET-Planner, EPA Greenhouse Gas Equivalency Calculator, Soil Test Results, etc.) and how you will utilize the tools to measure each impact.
3. What **actions** must be taken to meet each measurable result? (Who is responsible for measuring, frequency, etc.)
4. What are the long-lasting (3-5 years) benefits of this project for each of the following:
5. Your farm
6. Climate smart agriculture in CT
7. The stakeholders, community, and state

**Project Timeline**

Based on the tables below, list the major tasks necessary to complete the proposed project and the timeframe/deadline for each. Your list of tasks must include the installation/implementation period, grant reporting requirements, and the monitoring period.

Projects must be completed within 12 months of contract execution, and the monitoring period will occur in the 12 months following implementation/installation.

As a reminder, no extensions will be given. No incomplete projects will be funded.

**Implementation Phase:**

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| **Action** | **Deadline** |
| Contract Signing | Spring/Summer 2024 |
| Initial Disbursement (50%) of Funds | Spring/Summer 2024 |
| First Semi-Annual Report Due | Summer 2024 |
| Project Installation/Implementation | Spring/Summer 2025 |
| Second Semi-Annual Report Due | Spring 2025 |
| Site Visit conducted by CT RC&D and CT DoAG | Spring/Summer 2025 |
| Following completion of project, request for Final Disbursement (50%) of Funds | Summer/Fall 2025 |

**Monitoring Phase:**

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| **Action** | **Deadline** |
| Third Semi-Annual Report Due | Fall 2025 |
| Possible Site Visit conducted by CT RC&D and CT DOAG | Spring/Summer 2026 |
| Final Report | Summer 2026 |

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| **Fill out the table below as it pertains to your project. Add or remove rows as needed.** |  |
| **Task** | **Anticipated Timeline** |  |
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