

Model Intercomparison and Improvement for Carbon Sequestration and Greenhouse Gas Emission Estimation from Agriculture



Fiscal Year (FY) 2024

**Model Intercomparison and Improvement for Carbon Sequestration
and Greenhouse Gas Emission Estimation from Agriculture**

Notice of Funding Opportunity (NFO)

No. USDA-NRCS-NHQ-SSRA-24-NOFO001387

Notice of Funding Opportunity (NFO)

SUMMARY INFORMATION

Federal Awarding Agency Name: U.S. Department of Agriculture – Natural Resources Conservation Service

Notice of Funding Opportunity Title: Model Intercomparison and Improvement for Carbon Sequestration and Greenhouse Gas Emission Estimation from Agriculture

Notice of Funding Opportunity Number: USDA-NRCS-NHQ-SSRA-24-NOFO001387

Assistance Listing: This program is listed in the Assistance Listings (previously referred to as the Catalog of Federal Financial Assistance) on Sam.gov under 10.903, which can be found at: <https://sam.gov/content/home>.

SAM is a web-based, government-wide application that collects, validates, stores, and disseminates business information about the federal government's trading partners in support of the contract awards, grants, and electronic payment processes.

Notice of Funding Opportunity Summary

The U.S. Department of Agriculture (USDA) is announcing this funding opportunity for a cooperative agreement to support the coordination, implementation, and management of model intercomparison studies in agricultural systems. The model intercomparison study supports the Inflation Reduction Act (IRA) Greenhouse Gas (GHG) Quantification efforts. The IRA GHG Quantification work for agriculture is a collaboration among several USDA agencies. This study will be supported through the Natural Resources Conservation Service (NRCS). The purpose of the cooperative model intercomparison study is to assess and advance the state of science for carbon (C) sequestration and GHG emission modeling for agriculture. Soil C sequestration and GHG emissions in cropland and grassland systems and their interactions with different climate-smart mitigation practices will be the focus of the study. This award will support the coordination unit (awardee) and provide the funding for subawards to model groups. Participating models for the study will be identified by the coordination unit through communications or meetings with different model groups in conjunction with USDA and NRCS priorities and the scope of intercomparison work and subject to the funding allocation. The model intercomparison study will build on existing efforts or initiate a new effort and be designed and implemented through coordination involving all participating model groups. Data sets including field measurements and model input-output will be compiled, stored, and managed for easy access to facilitate model intercomparison activities.

Proposals are requested for competitive consideration of the award with \$1.9 million total funding available for a 4-year agreement. The proposal must include a breakdown of funds to be

used for process coordination, management, and analysis, as well as funds for subawards to support the participation of multiple modelling groups for 3 years of the agreement. Eligibility is limited to institutions in the Cooperative Ecosystem Studies Unit (CESU) network (<http://www.cesu.psu.edu/>).

All proposals must include a data management plan and all data and deliverables must be made publicly available per USDA regulations -

<https://www.usda.gov/sites/default/files/documents/dr-1020-006.pdf>.

For new users of Grants.gov, see Section D. of the full Notice of Funding Opportunity for information about steps required before submitting an application via Grants.gov.

Key Dates

Applicants must submit their applications via Grants.gov by 11:59 pm Eastern Time on October 4, 2024. For technical issues with Grants.gov, contact Grants.gov Applicant Support at 1-800-518-4726 or support@grants.gov. Awarding agency staff cannot support applicants regarding Grants.gov accounts.

For inquiries specific to the content of the NFO requirements, contact the federal awarding agency contact (section G of this NFO). Please limit questions to those regarding specific information contained in this NFO (such as dates, page numbers, clarification of discrepancies, etc.). Questions related to eligibility, or the merits of a specific proposal will not be addressed.

The agency anticipates making selections by November 15, 2024 and expects to execute awards by January 15, 2025. These dates are estimates and are subject to change.

Federal Funding Floor and Ceiling Amounts

The estimated funding floor for this opportunity is *\$1.9 million*, and the estimated funding ceiling is *\$1.9 million*. The funding floor means the minimum agreement funding amount for the Federal share per agreement awarded. The ceiling is the maximum agreement funding amount for the Federal share per agreement awarded. These numbers refer to the total agreement amount, not any specific budget period.

Federal Financial Assistance Training

The funding available through this NFO is Federal financial assistance. Grants 101 Training is highly recommended for those seeking knowledge about Federal financial assistance. The training is free and available to the public via <https://www.cfo.gov/resources/federal-financial-assistance-training/>. It consists of five modules covering each of the following topics: 1) laws, regulations, and guidance; 2) financial assistance mechanisms; 3) uniform guidance administrative requirements; 4) cost principles; and 5) risk management and single audit. FPAC agencies also apply Federal financial assistance regulations to certain non-assistance awards (e.g., non-assistance cooperative agreements).

NRCS Commitment to Equity

NRCS is committed to the success of all of our nation's producers, businesses, and partners. Some of our nation's producers belong to communities which have been or are marginalized in ways that have reduced their ability to farm and ranch successfully -- despite the vital role that they have played in securing a healthy agricultural economy for our country and protecting, enhancing, and sustaining our valuable natural resources. NRCS encourages proposal submissions from entities that represent, are partnered with, or are composed entirely of producers belonging to such communities.

Buy America Preference

Build America, Buy America. "Buy America" preference applies to Federal financial assistance programs for infrastructure. A Buy America preference applies to an entire infrastructure project, even if it is funded by both Federal and non-Federal funds under one or more awards. Subawards should conform to the terms and conditions of the Federal award from which they flow. A Buy America preference only applies to the iron and steel, manufactured products, and construction materials incorporated into an infrastructure project receiving a Federal award. Refer to the Federal Awarding Agency's General Terms and Conditions for additional information: <https://www.fpacbc.usda.gov/about/grants-and-agreements/award-terms-and-conditions/index.html>

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A. PROGRAM DESCRIPTION

The authorizing statutes and regulations for this opportunity are 16 U.S.C. 590a-f and 590q, 42 U.S.C. 3271-3274 (CFDA 10.903), and the Inflation Reduction Act Conservation Section 21002(a)(2).

The Inflation Reduction Act Conservation Technical Assistance (CTA) Section 21002(a)(2) provides \$300,000,000 over 8 years (FY23-FY31) to carry out a program to advance strategic greenhouse gas (GHG) quantification efforts to support USDA's broader Monitoring, Measuring, Reporting, and Verifying (MMRV) portfolio. The two major goals of this work are to:

- 1) Improve estimates and reduce uncertainties of GHG mitigation outcomes associated with conservation activities supported through USDA conservation programs
- 2) improve the timeliness and reduce uncertainties in the US National GHG Inventory.

The IRA GHG quantification work is organized into action areas that address core input received by USDA from the IRA Request for Information issued in November 2022. One of those action areas has as its overall goal to improve and advance models and decision-support tools for assessing GHG emissions and carbon sequestration conservation outcomes at various temporal and spatial resolutions – operational (e.g., farm/ranch/private forest), state, regional (Major Land Resource Area (MLRA), state, group of states, etc.), and national scale. Investments in models will prioritize improvements in quantifying, documenting, evaluating, and reducing uncertainty in model estimates. In support of that effort, this funding opportunity makes available funding for an entity to design and coordinate inter-model comparison studies. Model developers and users will work collaboratively to conduct model simulations with consistent input scenarios for assessing model performance and identifying opportunities to reduce uncertainties. This model intercomparison effort will focus on soil C sequestration and N₂O emission estimation in U.S. cropland and grazing systems.

Entities interested in coordinating, implementing, and managing the studies should be organizations not seeking to participating in the model intercomparison as a model group collaborator.

The funded organization will be responsible for:

- Within the first year of award:
 - A comprehensive assessment of existing activities and opportunities for model intercomparison.
 - Soliciting expressions of interest from different model groups and working with USDA NRCS to select 6-8 model group collaborators to participate in the study.
 - The funded entity will work with USDA NRCS to identify and finalize the model group collaborators. USDA NRCS will help identify the model groups that can

most directly contribute to the Agency's GHG quantification and assessment activities.

- Allocating funding support for model collaborators through subawards.
- Working with selected model collaborators to design an appropriate model intercomparison study and methodology that initiates a new effort or substantively expands and builds on existing efforts, including assessment of performance in measuring the impacts of a suite of priority Climate-Smart Agriculture and Forestry (CSAF) management practices. NRCS's current list of CSAF conservation practices can be found on NRCS's [Climate website](#).
- Coordinating and providing support for intercomparison efforts including:
 - Establishment of data sharing and communication processes
 - Convening of model collaborators in in-person or remote meetings
 - Coordination of group publications describing results
- Identifying, compiling, coordinating, and managing data and publications for use by this study through working with model collaborators and USDA.
- Collating and assessing model intercomparison result and generating a report identifying model improvement opportunities for USDA within the IRA GHG Quantification efforts to support the broader USDA MMRV portfolio.
- Model intercomparison activities include input setup, model configuration, simulation, output comparison with field measurements for validation/accuracy assessment, and uncertainty identification for future improvement. Both activities in the question are included for this NOFO effort.
- Detailed efforts with model groups to be determined after award will guide activities on "Data sets ... intercomparison activities". Data sets to be used for the intercomparison will rely heavily on existing data available from model groups but, subject to timeline and availability, may include new data sets to be available under USDA IRA-GHG Quantification efforts, following appropriate statutes and codes.
- Data use will follow all relevant statutes and codes, which depend on the source of the data. For example, data from experimental research sites may be public, while use of data from producers fields would need to follow a number of statutes. Results from research funded by USDA should follow the USDA's open data requirements.

The project is anticipated to last for four years, with three years of support provided for each collaborating model partner.

Proposed projects must be performed in the United States.

B. FEDERAL AWARD INFORMATION

1. Available Funding

a. Estimated Funding

The Federal funding agency expects to award approximately \$1.9 million through this opportunity. However, the agency retains the discretion to award a larger or lesser amount.

b. Start Dates and Performance Periods

Projects may be between 3 and 4 years in duration. Applicants should plan their projects based on an estimated project start date of January 15, 2025.

c. Number of Awards

The agency expects to make one award.

2. Type of Award

a. Type of Federal Award

The agency plans to award a cooperative agreement pursuant to this opportunity. Depending on the nature of a particular proposal received, the agency may elect to negotiate an alternate award type with the selected applicant. The agency will be substantially involved in the work performed under the agreement and will undertake activities such as the following:

- a. Review and approval of one stage of work before another may begin
- b. Review and approval of substantive provisions of proposed subawards or contracts beyond existing Federal policy
- c. Agency and recipient collaboration or joint participation
- d. Project monitoring to permit specified kinds of direction or redirection of the work because of interrelationships with and impacts on other projects
- e. Review and approval of key personnel
- f. Direct agency operational involvement or participation during the activity

b. Procurement Contracts

The agency does not expect to award procurement contracts associated with this NFO.

c. Eligibility of Renewal or Supplemental Project Applications

Applications for renewal or supplementation of existing projects are not eligible to compete with applications for new Federal awards. An application for renewal means an application submitted to continue an existing agreement that meets the objectives and requirements of this NFO. An application for supplementation of an existing project means an application to add components to an existing agreement so that it would meet the objectives and requirements in this NFO.

C. ELIGIBILITY INFORMATION

1. Eligible Applicants

Applicants and applications must meet eligibility criteria by the application deadline to be considered for award. Eligible applicant type is determined by the implementing program statute. Applicant entities identified in the SAM.gov exclusions database as ineligible, prohibited/restricted, or excluded from receiving Federal contracts and

certain Federal assistance and benefits will not be considered for Federal funding, as applicable to the funding being requested under this Federal program (2 CFR 200.206(d)). Neither foreign entities nor individuals are eligible to apply for this opportunity.

Eligibility for this opportunity is limited to the following entity types:

- a. Institutions of higher education in the Cooperative Ecosystems Studies Unit (CESU) network.
- b. Non-profits in the Cooperative Ecosystems Studies Unit (CESU) network.

2. Other

Any award made pursuant to this NFO will be made to a single entity. Applicants that apply as “partnerships” or other similar groupings must clearly describe the relationship between the applicant and the “partner” parties. In all but exceptional cases, it must be reflected in the award as an awardee/sub awardee relationship.

An applicant organization may submit more than one application for different projects or proposing different approaches. In the case of applications submitted as revisions or corrections to a previously submitted application under this NFO, the agency will consider the last application submitted prior to the established deadline.

Awards made pursuant to this NFO are not Farm Bill incentive contracts; therefore, the awards in and of themselves are not limited by the payment limitation in 16 USC Chapter 58. However, any agricultural producers receiving a payment through participation in a project awarded under this NFO must meet the eligibility requirements of 7 CFR Part 12 and 7 CFR Part 1400 and have control of the land involved for the term of the proposed award period.

3. Match

There is no match requirement for this opportunity. There is no competitive advantage to applicants who voluntarily provide a match.

D. APPLICATION AND SUBMISSION INFORMATION

1. Information for New Users of Grants.gov

a. Overview

While a Grants.gov account is not required to download an NFO and related documents, it is required to submit an application. If your organization has never submitted an application via Grants.gov, please be aware that there are several steps you must take to register your organization before you can submit an application. **Completing those steps can take a significant amount of time, plan accordingly.**

b. Register to Apply through Grants.gov

Applicants should read the registration instructions carefully and prepare the information requested before beginning the registration process. Reviewing and assembling the required information before beginning the registration process will alleviate last-minute searches for required information.

For assistance with the registration process, contact Grants.gov Applicant Support, available 24/7, at 1-800-518-4726 or support@grants.gov.

Organizations must complete all steps to register (steps i. through v. below).

Complete organization instructions are included on Grants.gov here:

<https://www.grants.gov/applicants/applicant-registration/>

Although creating a Grants.gov account online can be completed online in minutes, SAM registrations may take several weeks. Therefore, organizations should begin the process early to ensure they have sufficient time to complete registration and meet required application submission deadlines.

Individuals (those submitting on their own behalf) are not subject to the Unique Entity Identifier (UEI) or SAM requirement and may begin with step iii., Create a Grants.gov Account, listed below. (Note: Individuals are not eligible for all opportunities.)

c. Steps to Register

- i. *Obtain a UEI:* All entities applying for funding must have a UEI issued by SAM.gov. Applicants must enter the UEI in the data entry field labeled "UEI" on the SF-424 form.
- ii. *Register with SAM:* All organizations (entities) must register with System for Award Management (SAM) to apply online through Grants.gov. Failure to register with SAM will prevent your organization from applying through Grants.gov. SAM registration must be renewed annually. Part of the SAM registration process includes designating an Electronic Business Point of Contact (EBiz POC). **The EBiz POC plays an integral part in the organization's Grants.gov registration and application process.** The individual in that role must authorize all other roles in Grants.gov. For more detailed instructions for registering with SAM, refer to <https://www.grants.gov/applicants/applicant-registration/>
- iii. *Create a Grants.gov Account:* From the Grants.gov webpage (<https://www.grants.gov/>), click "Register" in the top right-hand corner and follow the on-screen instructions.
- iv. *Add a Profile to a Grants.gov Account:* A profile in Grants.gov corresponds to a single applicant organization the user represents (i.e., an applicant) or an individual applicant submitting on their own behalf. If you work for or consult with multiple organizations, you can have a profile for each organization under one Grants.gov account. In such cases you can log in to one Grants.gov

account to access all your grant profiles. To add an organizational profile to your Grants.gov account, enter the UEI for the organization in the UEI field. If you are an individual applicant submitting on your own behalf, you do not need a UEI to add the profile. For more detailed instructions about creating a profile on Grants.gov, refer to <https://www.grants.gov/applicants/applicant-registration/add-profile>

- v. *EBiz POC Authorized Profile Roles:* After you register with Grants.gov and create an Organization Applicant Profile, you must establish roles for individuals in the organization. The Authorized Organizational Representative (AOR) role is critical; it gives an individual permission to complete and submit applications on behalf of the organization. Without this role, the organization cannot submit any applications. The request for role assignment will be routed to the organization's EBiz POC for approval. Once approved, the AOR can submit an application online. For more detailed instructions about creating a EBiz POC authorized profile on Grants.gov, refer to <https://www.grants.gov/applicants/applicant-registration/ebiz-poc-authorizes-profile-roles>

Track Role Status: To track your role request, refer to <https://www.grants.gov/applicants/applicant-registration/track-profile-role-status>

d. Electronic Signature

When applications are submitted through Grants.gov, the name of the organization applicant with the AOR role that submitted the application is inserted into the signature line of the application, serving as the electronic signature. The EBiz POC **must** authorize people who are able to make legally binding commitments on behalf of the organization as a user with the AOR role. **This step (step c.v. above) is often missed, and it is crucial for valid and timely submissions.**

e. Workspace

Workspace is a shared, online environment where members of a grant team may simultaneously access and edit different webforms within an application. For each NFO, you can create individual instances of a workspace. An applicant can start an application in Workspace and return to work on it later within Workspace.

Applicants using unreliable internet connections should be aware that the process of completing the Workspace can take some time. Therefore, applicants should allow enough time to prepare and submit the application before the package closing date.

f. Apply for an Opportunity

Below is an overview of applying on Grants.gov. For complete instructions on how to apply for opportunities, refer to <https://www.grants.gov/applicants/workspace-overview/>

If the Apply button in the opportunity is not active (greyed out), the user does not have the appropriate permissions or has an incomplete applicant registration. For additional information, refer to

<https://grantsgovprod.wordpress.com/2023/06/08/unlock-the-mystery-of-the-gray-apply-button-four-scenarios/#:~:text=The%20Apply%20button%20will%20be,to%20view%20the%20close%20date.>

- i. Create a Workspace: Creating a workspace allows you to complete an application online and route it through your organization for review before submitting.
- ii. Complete a Workspace: Add participants to the workspace to work on the application together, complete all the required forms online or by downloading PDF versions, and check for errors before submission. The Workspace progress bar will display the status of your application process as you apply. As you apply using Workspace, you may click the blue question mark icon near the upper-right corner of each page to access context-sensitive help.
 - Adobe Reader: If you decide not to apply by filling out webforms you can download individual PDF forms in Workspace. The individual PDF forms can be downloaded and saved to your local device storage, network drive(s), or external drives, then accessed through Adobe Reader.

NOTE: Visit the Adobe Software Compatibility page on Grants.gov to download the appropriate version of the software at <https://www.grants.gov/applicants/adobe-software-compatibility>
 - Mandatory Fields in Forms: In the forms, you will note fields marked with an asterisk and a different background color. These fields are mandatory fields that must be completed to successfully submit your application.
 - Complete SF-424 Fields First: The forms are designed to fill in common required fields across other forms, such as the applicant name, address, and UEI. Once it is completed, the information will transfer (i.e., prepopulate) to the other forms.
- iii. Submit a Workspace: An application may be submitted through workspace by clicking the Sign and Submit button on the Manage Workspace page, under the Forms tab. Grants.gov recommends submitting your application package at least 24-48 hours prior to the close date to provide you with time to correct any potential technical issues that may disrupt the application submission.

- iv. **Track a Workspace Submission:** After successfully submitting a workspace application, a Grants.gov Tracking Number (GRANTXXXXXXXX) is automatically assigned to the application. The number will be listed on the Confirmation page that is generated after submission. Using the tracking number, access the Track My Application page under the Applicants tab or the Details tab in the submitted workspace.

For additional training resources, including video tutorials, refer to <https://www.grants.gov/applicants/applicant-training>

2. Electronic Application Package

Applicants interested in submitting an application in response to this NFO must submit it via Grants.gov; the agency will not accept applications submitted via email or any other method. No exceptions will be made for applicants experiencing issues with Grants.gov unless a known system wide Grants.gov issue is identified, in which case the deadline will be extended for all applicants, as appropriate. Applicants are urged to submit early to the Grants.gov system.

For technical issues with Grants.gov, contact Grants.gov Applicant Support, available 24/7, at 1-800-518-4726 or support@grants.gov. Awarding agency staff cannot support applicants regarding Grants.gov accounts.

Address to Request Application Package

All information necessary to apply for this opportunity is included in the [Grants.gov](#) opportunity announcement.

3. Content and Form of Application Submission

The agency may choose not to consider applications that fail to comply with the required content, format, and page limits, or those that are incomplete. Do not submit video files or files larger than 10MB. File names of attachments must be limited to 50 characters, may not include special characters (e.g., &, -, *, %, /, #), periods (.), blank spaces or accent marks, and must be unique (i.e., no other attachment may have the same file name). An underscore (example: my_Attached_File.pdf) may be used to separate a file name. Attachments must **NOT** be password protected.

To be considered for funding under this opportunity, an application must contain the documents in a-g below.

a. Application Form

(Standard Form 424 Application for Federal Assistance) See Instructions for Completing SF 424 located in the appendices section.

b. Project Narrative

Each page must be numbered and have one-inch margins. The text of the project narrative must be single spaced and typed in a standard typeface (e.g., Times New Roman, Arial, Courier) with no smaller than 12-point font. The

project narrative must not exceed 15 pages. This page limitation applies to the project narrative only.

- i. Project abstract.
- ii. Institutional background. Describes the applicant institution in terms of its location, demographics, mission, relationship to the service area, experiences or capabilities for subaward management, and past successes in the project area.
- iii. Problem statement/needs assessment. Documents the problem or need with hard data, linking it to the funding source's goals and priorities. What is the situation that is causing concern? Why is it happening?
- iv. Program goals and objectives. Identifies anticipated outcomes and benefits in measurable terms. How is the situation expected to change as a result of the award?
- v. Methods/implementation. Statement of work with objectives, deliverables, and milestones will be included. Describes the activities that directly support the achievement of the objectives. A timeline may be included in this section as well as a description of staffing needs.
- vi. Information transfer plan. Describe means for disseminating information of the study results and promoting its application, including project reports, webinars, peer-reviewed publications, guidebooks, new technique methods, workshops, etc.
- vii. Evaluation plan. Presents a plan for determining the success of the project at interim points and at the end of the project.

c. Standard Form (SF) 424A, Budget Information - Non-Construction Programs

Fill in all spaces as appropriate. Section B, Item 6, Column 1 should reflect the agency funds, and Column 2 should reflect the applicant's matching funds. This form is the summary budget for the project and should include the full project totals on pages one and two. See Instructions for Completing SF 424A located in the appendices section. Refer to Section D of this opportunity for information regarding indirect costs. Errors in the SF-424A regarding classifying costs may be negotiated after selection.

d. Budget Narrative

In a separate document titled "Budget Narrative," explain and justify all requested budget items/costs. (Refer to the budget narrative guidance located in the appendices section.) Detail how the totals on the SF-424A were determined and demonstrate a clear connection between costs and the proposed project activities. For personnel salary costs, include the base-line salary figures and the estimates of time (as percentages) to be directly charged to the project. Describe any item that under the applicable Federal cost principles requires the agency's approval and estimate its cost. The pages

included as the budget narrative to not count toward the page limit. Errors in the budget narrative regarding classifying costs may be negotiated after selection. Refer to the Budget Narrative Guidance located at the end of this document regarding procurement standards when including contracts for goods or services. **Sole-source contracting is prohibited without proper justification.** See Procurement Standards located at 2 CFR 200.317-327.

- i. Build America, Buy American. “Buy America” preference applies to Federal financial assistance awards that include any activity related to the construction, alteration, maintenance, or repair of infrastructure, even if it is funded by both Federal and non-Federal funds under the award. Subawards should conform to the terms and conditions of the Federal award from which they flow. A Buy America preference only applies to articles, materials, and supplies that are consumed in, incorporated into, or affixed to an infrastructure project. Refer to the General Terms and Conditions for additional information:
<https://www.fpacbc.usda.gov/about/grants-and-agreements/award-terms-and-conditions/index.html>
- ii. Indirect Costs Recovery and Limitations. If requesting indirect costs, provide the calculation specifying the amounts used in applying the base by the applicable rate of 17.5%. The calculation can be displayed in different formats but must capture the components (i.e., amounts used in determining the base and the rate applied to the base).
 - A. In accordance with each CESU's Cooperative and Joint Venture agreement, a 17.5% indirect cost rate with a base of Modified Total Direct Costs will be used for awards resulting from this opportunity.
 - B. As described in [2 CFR 200.403](#), costs must be consistently charged as either indirect or direct costs but may not be double charged or inconsistently charged as both. If chosen, this methodology once elected must be used consistently for all Federal awards until such time as a non-Federal entity chooses to negotiate for a rate, which the non-Federal entity may apply to do at any time.
 - C. Recipients are prohibited from shifting unallowable indirect costs to another Federal award unless specifically authorized to do so by legislation.
 - D. A recipient may voluntarily reduce or waive recovery of indirect costs at its sole discretion and must not be encouraged or coerced in any way to do so by the agency.

Refer to the Budget Narrative Guidance located in the appendices section for information about making contract vs. subaward determinations.

e. Grants.gov Lobbying Form

Under Title 31 of the United States Code, Section 1352, an applicant or recipient must not use any federally appropriated funds (both annually appropriated and continuing appropriations) or matching funds under a grant or cooperative agreement award to pay any person for lobbying in connection with the award. Lobbying is defined as influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress connection with the award. Submission of an application also represents the applicant's certification of the statements in 2 CFR Part 418, Appendix A-Certification Regarding Lobbying.

f. Applicant Contact Information

Provide contact information for the roles identified in the Applicant Contact Information template, located in the Related Documents tab of the opportunity. Upload the contact information under Other Attachments (listed as an Optional Form) in the Grants.gov Opportunity Application Package.

g. Statement of Current and Pending Support

Submit a Statement of Current and Pending Support for each key personnel who will participate in the project. For your convenience, a template is available for your use in the Related Documents tab of the opportunity. Upload the statement under Other Attachments (listed as an Optional Form) in the Grants.gov Opportunity Application Package.

h. SF-LLL, Disclosure of Lobbying Activities

SF-LLL, Disclosure of Lobbying Activities, must be submitted **only** if you/your organization have/has made or agrees to make any payment using non-appropriated funds for lobbying. See 2 CFR 418.110 for more information on when additional submission of this form is required.

i. Negotiated Indirect Cost Rate Agreement (NICRA), if applicable

If charging indirect costs using a NICRA (including for match), upload the NICRA under Other Attachments (listed as an Optional Form) in the Grants.gov Opportunity Application Package.

j. Letters of Support (optional)

Provide evidence (e.g., letter of support) that the identified collaborators involved have agreed to render these services. You must also provide additional information on consultants and collaborators in the budget portion of the application.

Letters of support must be signed by the authorized organizational representative of the organization and must include the project name and name, address, and telephone number of the organization. The agency may conduct reference checks to ensure that organizations identified are

supportive of the project. Upload letters of support under Other Attachments (listed as an *Optional Form*) in the Grants.gov Opportunity Application Package.

k. Letters of Intent

Letters of intent are not required and should not be submitted.

l. Disclosure of Potential Conflict of Interest

In accordance with 2 CFR 400.2, applicants must maintain written standards of conduct covering conflicts of interest and governing the performance of its employees in the selection, award, and administration of Federal awards. No employee, officer, or agent may participate in the selection, award, or administration of a Federal award if he or she has a real or apparent conflict of interest. Such a conflict of interest would arise when the employee, officer or agent, any member of his or her immediate family, his or her partner, or an organization which employs or is about to employ any of the parties referenced, has a financial or other interest in, or a tangible personal benefit from, an applicant considered for a Federal award. The standards of conduct must provide for disciplinary actions to be applied for violations of such standards by officers, employees, or agents of the applicant.

If the applicant has a parent, affiliate, or subsidiary organization that is not a state, local government, or Indian tribe, the applicant must also maintain written standards of conduct covering organizational conflicts of interest. Organizational conflict of interest means that because of the relationships with a parent company, affiliate, or subsidiary organization, the applicant is unable or appears to be unable to be impartial in conducting a Federal award action involving a related organization.

Applicants must disclose in writing any potential conflicts of interest to the USDA awarding agency or pass-through entity. Include the name of the individual, the name of the entity with which the individual has a conflict, the nature of the financial or other interest, the value of the interest, a description of how the interest relates to your application. Upload disclosures under Other Attachments (listed separately under Optional Forms) in Grants.gov. **If no conflict exists, no submission is required.**

m. Post Award Documentation: N/A

n. Unique entity identifier (UEI) and System for Award Management (SAM)

Each applicant (unless the applicant is an individual excepted from those requirements under 2 CFR 25.110(b) or (c), or has an exception approved by the Federal awarding agency under 2 CFR 25.110(d)) is required to: (i) Be registered in SAM before submitting its application; (ii) provide a valid unique entity identifier in its application; and (iii) continue to maintain an active SAM registration with current information at all times during which it has an active Federal award or an application or plan under consideration by a Federal

awarding agency. The agency may not make a Federal award to an applicant until the applicant has complied with all applicable unique entity identifier and SAM requirements and, if an applicant has not fully complied with the requirements by the time the agency is ready to make an award, it may determine that the applicant is not qualified to receive a Federal award and use that determination as a basis for making a Federal award to another applicant.

Entities must obtain a UEI and register in SAM prior to registering with Grants.gov. A description of each is below. Entities are strongly encouraged to apply early for their SAM registration.

System for Award Management (SAM) Registration: To register, go to: <https://www.sam.gov>. The Federal Service Desk is available for registration assistance and can be contacted via the Help tab at the website listed above.

Awarding agency staff cannot support applicants regarding UEI or SAM issues.

4. Submission Dates and Times and Correspondence

All applications must be received by Grants.gov by 11:59 pm Eastern Time (ET) by the established due date in the Key Dates section of the Summary Information of this NFO. Proof of timely submission is automatically recorded by Grants.gov. An electronic date/time stamp is generated within the system when the application is successfully received by Grants.gov.

Applications received by Grants.gov after the established due date will be considered late and will not be considered for funding. An application is considered on time at 11:59.59 pm ET, but it is late at 12:00 am ET.

Grants.gov will provide either an error or a successfully received transmission in the form of an email sent to the applicant with the Authorized Organizational Representative (AOR) role attempting to submit the application. The Grants.gov Support Center reports that some applicants end the transmission because they think that nothing is occurring during the transmission process; be patient and give the system time to process the application.

The applicant with the AOR role who submitted the application will receive:

- an acknowledgement of receipt and a tracking number (GRANTXXXXXXXXX) from Grants.gov with the successful transmission of their application.
- an email with the official date/time stamp and Grants.gov tracking number serving as proof of timely submission.

When the agency successfully retrieves the application from Grants.gov, and acknowledges the download of submissions, Grants.gov will also provide an electronic acknowledgment of receipt of the application to the applicant with the AOR role who submitted the application. Proof of timely submission shall be the official date and time that Grants.gov receives your application.

If you have trouble submitting an application to Grants.gov, contact the Grants.gov Help Desk to resolve any issues. See Section D. 2. for Grants.gov contact information.

Applicants using unreliable internet connections should be aware that the process of completing the Workspace can take some time. Therefore, applicants should allow enough time to prepare and submit the application before the package closing date.

5. Intergovernmental Review

This funding opportunity is not subject to Executive Order 12372, “Intergovernmental Review of Federal Programs.” When completing the SF-424, check block c, “Program is not covered by E.O. 12372.”

6. Funding Restrictions

Funds may not be used to pay any of the following costs unless otherwise permitted by law and approved in writing by the agency in advance of incurring such costs:

- a. Profit and management fees. Any funds awarded to for-profit entities must be used for reimbursement of award related direct and indirect costs only.
- b. Costs above the amount of funds authorized for the project.
- c. Costs incurred prior to the effective date of the award, including time spent applying for this opportunity.
- d. Costs which lie outside the scope of the approved project and amendments thereto.
- e. Entertainment costs, regardless of their apparent relationship to project objectives.
- f. Compensation for injuries to persons, or damage to property arising out of project activities.
- g. Consulting services performed by a Federal employee during official duty hours when such consulting services result in the payment of additional compensation to the employee.
- h. Capital expenditures for general purpose equipment, buildings, and land and for improvements to land, buildings, or equipment which materially increase their value or useful life. See 2 CFR 200.439 for additional information.
- i. Meals may be charged to an award only if they are necessary for the performance of the project. For instance, meals (normally only lunch) that are a necessary part of the costs of meetings and conferences (i.e., required attendance and continuity of a meeting), the primary purpose of which is the dissemination of information, are allowable, as are costs of transportation, rental of facilities, speakers’ fees, and other items incidental to such meetings or conferences. Note: Meals consumed while in official travel status do not fall in this category. They are considered to be per diem expenses and should be reimbursed in accordance with the organization’s established travel policies subject to statutory limitations or in accordance with Federal travel policies.
- j. Costs normally charged as [indirect costs](#) may not be charged as [direct costs](#) without proper justification and agency approval. Proper justification includes

documentation that the costs meet the criteria for allowability (see 2 CFR 200.403). Examples of such costs include rent, utilities, depreciation on buildings and equipment, the costs of operating and maintaining facilities, and general administration and general expenses, such as the salaries and expenses of executive officers, personnel administration, and accounting.

- k. Salaries that are not commensurate with level of work. All costs must be reasonable to be allowable (2 CFR 200.403), and 2 CFR 200.404 defines a reasonable cost as one if, in its nature and amount, it does not exceed that which would be incurred by a prudent person under the circumstances prevailing at the time the decision was made to incur the cost. Salaries determined not to be reasonable compared to the level of work will be unallowable.
- l. Software produced by non-domestic entities. Project budgets must not include costs (both Federal costs and match) for software development by non-domestic entities if it will be utilized by the Federal government or hosted on Federal systems.
- m. Refer to Section D for applicable indirect cost restrictions, if any.

This list is not exhaustive. For additional information please refer to 2 CFR Part 200, subpart E, Cost Principals.

E. APPLICATION REVIEW INFORMATION

1. Review and Selection Process

Applications will be screened for completeness and compliance with the provisions of this notice. Incomplete, noncompliant, and/or applications not meeting the formatting criteria may be eliminated from competition. In that event, the agency will send notification of elimination to the applicant. The agency intends to select and award without conducting any discussions or allowing applicants to correct deficiencies or omissions in their applications. Consequently, applicants must ensure their applications are complete and accurate. However, while the agency intends to select without contacting applicants, it reserves the right to request applicants to revise their applications to correct deficiencies or omissions it identifies. If this occurs, the agency will conduct discussions with all applicants, identify deficiencies and omissions for all, and give applicants an opportunity to submit a revised application by a common cut-off date. The agency may also contact individual applicants to clarify certain components of their applications.

inter reviews will be conducted by a technical review board nominated by the approving official. Risk reviews will be conducted by the FPAC Business Center, Grants and Agreements Division. The approving official will make the final award decisions. The approving official for this opportunity is the NRCS Deputy Chief of Soil Science and Resource Assessment.

2. Merit/Technical Criteria

Proposals will be evaluated according to the following criteria:

Collaboration: Does the proposal explicitly document capacity for direct collaboration with USDA and execution of projects with multiple external collaborators?
Project management: Does the proposal document capacity for successful completion of project goals within the stated budget and timeline, including documentation of prior experience as applicable? Does the proposal adequately document capacity to manage multiple subawards with model collaborators?
Technical merit: Does the proposal clearly outline a plan for design and implementation of the model intercomparison and improvement project and for subsequent analysis of the process results? Is it scientifically sound? Is the proposal well written, organized, and complete?
Feasibility: Are the objectives, methodologies, designs, and techniques adequate and completely described? What is the likelihood of success given the methods, timeframe, and funding proposed?
Information transfer: Does the proposal describe how results and/or data will be useful to USDA and the broader research community in efforts to improve GHG quantification and carbon sequestration estimates within agriculture? Can the proposed research results enhance and improve our ability to meet of the IRA GHG Quantification goal to improve model estimates of outcomes from mitigation practices? Does the proposal address methods to transfer knowledge gained and potential impact of the results, including how results and/or data will be shared with USDA and the broader research community?
Data Management: Does the proposal contain an appropriate data management plan for project collaborators and for long-term data sharing and storage?
Qualifications of the investigators: Does the entity applying demonstrate sufficient and appropriate expertise to successfully complete the coordination and analysis outlined in the project proposal? Are the facilities and equipment adequate?
Budget: Is the budget reasonable and adequate for the proposed work?

3. Administrative and Risk Criteria

Notice of selection after merit/technical evaluation does not guarantee that an applicant will receive an award. Following notification of selection for funding (see Section F), the FPAC Business Center, Grants and Agreements Division's staff conducts a final administrative and risk review of those applications. The administrative review includes, but is not limited to, a check to ensure that NFO requirements were met (e.g., applicant meets eligibility criteria, application was submitted via Grants.gov by the established deadline), and proposed costs are allowable, allocable, and necessary. During this process, it may be necessary to request further documentation from the applicant (e.g., organizational information as part of the risk assessment, more detail regarding proposed costs).

In addition, to comply with the requirements at 2 CFR 200.206, the agency will follow, at a minimum, the risk review process described below (additional steps may be taken).

The awarding agency will check SAM to ensure the applicant is not suspended or debarred, which would preclude receiving an award. In addition, prior to making a Federal award with a total Federal share greater than the simplified acquisition threshold (\$250,000), the agency must review and consider any information about the applicant that is in the designated integrity and performance system accessible through SAM (the Federal Awardee Performance Integrity Information System, FAPIIS) (see 41 USC 2313 and 2 CFR 200.206(a)).

An applicant must meet the following standards to be considered for award:

a. **Financial Stability**

The applicant maintains an adequate financial resources or cash flow to meet its financial obligations on a routine basis in order to successfully complete any agreement it may be awarded.

b. **Quality of Management Systems and Ability to meet Management Standards prescribed in 2 CFR Part 200**

The applicant has a financial management system adequate to segregate and track federal funds. It has adequate systems in place for proper agreement administration; compliance with the standards outlined in 2 CFR Part 200 Section D for procurement, property, and records management; and required financial and performance reporting.

c. **History of Performance**

If the applicant has previously obtained Federal financial assistance award, it has never failed to materially comply with the Federal award terms and conditions and further has never had an award terminated on that basis.

Submission of an application constitutes certification that an applicant meets these standards (items a. through c. above). The agency may request documentation to substantiate the certification. Based on risk assessment, the agency may impose specific award conditions in accordance with 2 CFR 200.208.

4. Awards Over the Simplified Acquisition Threshold (if applicable)

- a. Prior to making a Federal award with a total Federal share greater than the simplified acquisition threshold (\$250,000), the agency must review and consider any information about the applicant that is in the designated integrity and performance system accessible through SAM, the Federal Awardee Performance Integrity Information System, FAPIIS. FAPIIS is a federal database intended to serve as a government-wide source of information about the prior performance and compliance of federal procurement contractors, grantees, and cooperative agreement holders (see 41 U.S.C. 2313 and 2 CFR 200.206(a)).
- b. An applicant may review information in FAPIIS accessible through SAM and comment on any information about it that a Federal awarding agency previously entered.
- c. The agency will consider any comments by the applicant, in addition to the other information in FAPIIS, in making a judgment about the applicant's integrity, business ethics, and record of performance under Federal awards when completing the review of risk posed by applicants as described in 2 CFR 200.206, Federal awarding agency review of risk posed by applicants.

F. FEDERAL AWARD ADMINISTRATION INFORMATION

1. Federal Award Notices

The agency will provide notice that an application has been selected before it actually makes the Federal award. As such, the selection notification is not an authorization to begin performance. Reimbursement of pre-award costs require written agency prior approval. The Notice of Grant and Agreement Award (ADS-093) signed by the authorized agency official is the only authorizing document and will be provided electronically to the entity's authorized official for signature.

Both successful and unsuccessful applicants will be notified of the award decision via letter.

2. Administrative and National Policy Requirements

All project funds will be used in accordance with 2 CFR Part 200 and the General Terms and Conditions, which are available at the following website:

<https://www.fpacbc.usda.gov/about/grants-and-agreements/award-terms-and-conditions/index.html>.

Projects performed pursuant to this opportunity may be subject to the National Environmental Policy Act (NEPA). If applicable, NRCS must work with awardees to complete an environmental review of each awarded project before project commencement. In addition, prior to any ground-disturbing activities related to NRCS funding, the awardee must work with NRCS staff to complete an environmental evaluation (EE) related to those activities. Awardees may be required

to prepare or pay for preparation of an environmental assessment (EA) or environmental impact statement (EIS), should any environmental review find that an EA or EIS is required.

In addition, a National Historic Preservation Act (NHPA), Section 106 review and consultation by an NRCS State or area office with consulting parties (such as the pertinent State Historic Preservation Officer and federally recognized Indian Tribes) may be required prior to the implementation of project activities that have the potential to impact cultural resources. NHPA Section 106, its implementing regulations (36 CFR Part 800), and other related authorities, require Federal agencies to determine if a project has the potential to cause an effect to historic properties and, if so, if they are adverse and how the effects may be addressed. The NHPA review and compliance in accordance with Section 106 of NHPA and implementing regulations at 36 CFR Part 800 must be completed by NRCS and applicants may be required to pay for any cultural resource surveys needed for NRCS to assess project effects. More information on the applicant's role in the NHPA Section 106 process can be found on the Advisory Council on Historic Preservation website at

<https://www.achp.gov/digital-library-section-106-landing/section-106-applicant-toolkit>.

Consultation with the U.S. Fish & Wildlife Service and/or the National Marine Fisheries Service under the Section 7 of the Endangered Species Act (ESA) is also required for projects that may affect listed or proposed species or destroy or modify critical habitat. The ESA consultation in accordance with Section 7 of the ESA and implementing regulations at 50 CFR Part 402 must be completed by NRCS prior to the implementation of project activities that have the potential to impact species or habitat protected under the ESA. More information on the Section 7 consultation process can be found at

<https://www.fws.gov/service/esa-section-7-consultation>.

3. Reporting

Reporting will follow the guidelines included in the agency's General Terms and Conditions, which are available at the following website:

<https://www.fpacbc.usda.gov/about/grants-and-agreements/award-terms-and-conditions/index.html>

If the Federal share of any agreement awarded under this opportunity notice may include more than \$500,000 over the period of performance, recipients must also comply with the post award reporting requirements reflected in Appendix XII of 2 CFR Part 200 – Award Term and Condition for Recipient Integrity and Performance Matters.

Applicants that receive awards pursuant to this opportunity and any sub awardees must comply with the reporting requirements described at 2 CFR Part 170 unless an exception applies. Applicants must ensure they have the necessary processes and

systems in place to comply with those requirements. A list of exceptions can be found at 2 CFR 170.110(b).

4. Audit Requirements

As required in 2 CFR Part 200, Subpart F Audit Requirements, all U.S. states, local governments, Federally recognized Indian tribal governments, and non-profit organizations expending \$750,000 or more in Federal award funds in a fiscal year must submit a Single Audit report for that year through the Federal Audit Clearinghouse's Internet Data Entry System. FPAC agencies also require for-profit organizations that meet the expenditure threshold to comply with the single audit requirements and submit their audit reports directly to the funding agency.

G. FEDERAL AWARDING AGENCY CONTACT

For questions regarding this opportunity, contact the following individual with the opportunity number in the subject line:

Name: Tessa Garcia
Grants Management Specialist
FPAC Business Center

Email: tessa.garcia@usda.gov with a copy to NFO.FPAC@USDA.GOV

To protect the integrity of the competitive process, applicants must not contact agency program staff with questions.

H. OTHER INFORMATION

1. Questions regarding this opportunity must be submitted to the Federal Awarding Agency Contact identified above via email with the opportunity number in the subject line.
2. For technical issues with Grants.gov, please contact Grants.gov Applicant Support at 1-800-518-4726 or support@grants.gov. Awarding agency staff cannot support applicants regarding Grants.gov accounts.

3. Freedom of Information Act (FOIA)

Applications are considered confidential information. Applications are not shared with individuals or entities seeking public disclosure through the Freedom of Information Act (FOIA) without the consent of the applicant. More specifically, Executive Order 12600 and USDA FOIA regulation 7 CFR Part 1, Subpart A requires the awarding agency to provide notice to applicants that a third party has requested copies of their business information and requires the awarding agency to consult with applicants regarding the releasing their records.

4. Government Obligation

The Federal Government is not obligated to make any Federal award as a result of this opportunity. Only authorized federal officials can bind the Federal Government to the expenditure of funds.

5. Any award made pursuant to this NFO may be executed in any number of counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.
6. Additional information
 - a) This funding opportunity represents a one-time initiative funded through the Inflation Reduction Act. Relevant information sources include:
 - a. [NRCS IRA GHG Quantification Factsheet \(usda.gov\)](#)
 - b. https://www.youtube.com/watch?list=PL4J8PxoprpgYHBzvdJnL9PsjOF2PMsCM4&embeds_referring_euri=https%3A%2F%2Fusdagcc.sharepoint.com%2F&source_ve_path=Mjg2NjQsMTY0NTAz&feature=emb_share&v=3KPEhGEaEI
 - c. <https://www.usda.gov/media/press-releases/2023/07/12/biden-harris-administration-announces-new-investments-improve>

U.S. Department of Agriculture Non-Discrimination Statement

In accordance with Federal civil rights law and U.S. Department of Agriculture (USDA) civil rights regulations and policies, the USDA, its Agencies, offices, and employees, and institutions participating in or administering USDA programs are prohibited from discriminating based on race, color, national origin, religion, sex, gender identity (including gender expression), sexual orientation, disability, age, marital status, family/parental status, income derived from a public assistance program, political beliefs, or reprisal or retaliation for prior civil rights activity, in any program or activity conducted or funded by USDA (not all bases apply to all programs). Remedies and complaint filing deadlines vary by program or incident.

Persons with disabilities who require alternative means of communication for program information (e.g., Braille, large print, audiotope, American Sign Language, etc.) should contact the responsible Agency or USDA's TARGET Center at (202) 720-2600 (voice and TTY) or contact USDA through the Federal Relay Service at (800) 877-8339. Additionally, program information may be made available in languages other than English.

To file a program discrimination complaint, complete the USDA Program Discrimination Complaint Form, AD-3027, found online at <https://www.usda.gov/oascr/filing-program-discrimination-complaint-usda-customer> and at any USDA office or write a letter addressed to USDA and provide in the letter all of the information requested in the form. To request a copy of the complaint form, call (866) 632-9992. Submit your completed form or letter to USDA by:

- (1) Mail: U.S. Department of Agriculture
Office of the Assistant Secretary for Civil Rights

1400 Independence Avenue, SW
Washington, D.C. 20250-9410

(2) Fax: (202) 690-7442; or

(3) Email: program.intake@usda.gov

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