

**Request for Information (RFI) No. DE-FOA-0003262RFI
Amendment 1**

Carbon Basin Assessment and Storage Evaluation (CarbonBASE)

Program Area: Office of Fossil Energy and Carbon Management (FECM)

Responses Due: February 23, 2024 by 5:00 PM ET

Amendments

All Amendments to the RFI are [HIGHLIGHTED] in the body of the RFI.

Amendment No.	Date	Description of Amendment
0001	01/31/2024	Extend deadline to 02/23/2024 5:00 PM ET Changes highlighted in yellow highlight.

Background:

FECM is making substantial investments in the CarbonSAFE Initiative over the next 5 years to help catalyze the growth of the CCS (Carbon Capture & Storage) and storage-based CDR (Carbon Dioxide Reduction) industries. Government-sponsored large-scale demonstration projects (e.g., CarbonSAFE) and industry-funded commercial projects are expected to catalyze rapid growth of geologic CO₂ storage sites within single basins over time. FECM is in the process of refining priority research areas aimed at ensuring that storage resources in the U.S continue to be utilized and managed efficiently and safely. Areas of research FECM is considering include, but are not limited to, the following:

- Models and monitoring systems designed for assessing/ forecasting/predicting basin-scale storage resource performance and impacts.
- Tools, data and technologies that stakeholders (e.g., industry, regulators, investors, insurers, federal/state land managers) can use to assess/confirm isolation of influences between independent projects or to detect interferences.
- Studies aimed at enhancing the current understanding of basin-scale geomechanical influences and impacts.
- Best practices for efficient and safe CO₂ storage resource management at the basin scale

Facilitating the scale-up of CCS deployment will also require expanded characterization work to fill data gaps in basins with known or assumed storage potential. In this endeavor FECM's intended outcome is to provide stakeholders with the data and tools to help de-risk future government-sponsored and industry-funded projects.

Requested Information:

Through this RFI, FECM seeks inputs from multiple stakeholders including, CCS developers, storage site operators, federal/state land managers, researchers, regulators, investors, insurers, community advocacy leaders, and others. The goal is to identify the spectrum of needs based on their interests and concerns with regards to basin-scale effects of CCS. The following questions are provided to guide responses. You may answer as few or as many of the questions below as you would like. Please use the numbers as headings in your response to the greatest extent possible and refer to the questions in the body of your response. This helps save time for both the responder and the reviewers. Please be as specific as possible in all responses:

1. To enhance current understanding and characterization of basin-scale effects, which processes and effects need to be better characterized and at what scale?
2. To facilitate effective and rapid site screening and selection: what type of data and level of data resolution (space and time) would be sufficient?
3. To ensure economic and efficient use of storage resources, what information would be most important as inputs to a tool that could optimize storage efficiency and resource utilization as well as manage/reduce risks?
 - a. What state/federal/regulatory factors or policies need to be considered?
 - b. What outputs would you like such tools to provide?
4. When multiple projects are developed within a basin, what challenges would exist regarding competition for resource utilization?
 - a. What basin management paradigms should be considered?
5. To effectively manage multiple projects in a basin, what would be an adequate basin-wide monitoring strategy including for storage in multiple horizons?
 - a. What monitoring parameters would be the highest priority?
 - b. Would monitoring strategies need to consider other activities in multi-use basins (e.g., geothermal, subsurface mining, water disposal, oil and gas operations, etc.)?
6. To facilitate development of the nation's CO₂ storage resources, which basins/regions, including unconventional and offshore, should be targeted for additional characterization to fill data gaps?
 - a. What specific data, geologic or other, should be high priority?
 - b.

Additional Information

Please provide any other information that would be relevant and necessary to assess the need and requirements for expansion of CCS to the basin scale.

DISCLAIMER AND IMPORTANT NOTES:

This RFI is not a Funding Opportunity Announcement (FOA); therefore, DOE is not accepting applications at this time. DOE may or may not elect to issue a FOA in the future based on or related to the content and responses to this RFI. There is no guarantee that a FOA will be issued as a result of this RFI. Responding to this RFI does not provide any advantage or disadvantage to potential applicants if DOE chooses to issue a FOA regarding the subject matter.

Any information obtained as a result of this RFI is intended to be used by the Government on a non-attribution basis for planning and strategy development; this RFI does not constitute a formal solicitation for applications or concept papers. Your response to this notice will be treated as information only. DOE will review and consider all responses in its formulation of program strategies for the identified materials of interest that are the subject of this request. DOE will not provide reimbursement for costs incurred in responding to this RFI. Respondents are advised that DOE is under no obligation to acknowledge receipt of the information received or provide feedback to respondents with respect to any information submitted under this RFI. Responses to this RFI do not bind DOE to any further actions related to these topics.

PROPRIETARY INFORMATION:

Because information received in response to this RFI may be used to structure future programs and FOAs and/or otherwise be made available to the public, **respondents are strongly advised NOT to include any information in their responses that might be considered business sensitive, proprietary, or otherwise confidential.** If, however, a respondent chooses to submit business sensitive, proprietary, or otherwise confidential information, it must be clearly and conspicuously marked as such in the response.

FREEDOM OF INFORMATION ACT:

Responses received under this RFI are subject to public disclosure under the Freedom of Information Act. Because information received in response to this RFI may be used to structure future programs and funding opportunity announcements and/or otherwise be made available to the public, **respondents are strongly advised to NOT include any information in their responses that might be considered business sensitive (e.g., commercial or financial information that is privileged or confidential), trade secrets, proprietary, or otherwise confidential.**

Consistent with 10 CFR 1004.11, DOE requires that any person submitting information that they believe to be confidential and exempt by law from public disclosure should submit **two well-marked copies**: one copy of the document marked “confidential” which must clearly and conspicuously identify the business sensitive, trade secrets, proprietary, or otherwise confidential information, and one copy of the document marked “non-confidential” with the information believed to be confidential deleted. **Failure to comply with these marking requirements may result in the disclosure of the unmarked information under the Freedom of Information Act or otherwise.** The Government is not liable for the disclosure or use of unmarked information and may use or disclose such information for any purpose.

If you choose to provide business sensitive, trade secrets, proprietary, or otherwise confidential information, you must include a cover sheet marked as follows identifying the specific pages containing business sensitive, trade secrets, proprietary, or otherwise confidential information:

Notice of Restriction on Disclosure and Use of Data:

Pages [list *applicable pages*] of this response may contain confidential, proprietary, or privileged information that is exempt from public disclosure. Such information shall be used or disclosed only for the purposes described in this RFI #DE-FOA-0003262. The Government may use or disclose any information that is not appropriately marked or otherwise restricted, regardless of source.

In addition, (1) the header and footer of every page that contains confidential, proprietary, or privileged information must be marked as follows: “Contains Confidential, Proprietary, or Privileged Information Exempt from Public Disclosure” and (2) every line and paragraph containing proprietary, privileged, or trade secret information must be clearly marked with [[double brackets]] or highlighting.

EVALUATION AND ADMINISTRATION BY FEDERAL AND NON-FEDERAL PERSONNEL:

Federal employees are subject to the non-disclosure requirements of a criminal statute, the Trade Secrets Act, 18 USC 1905. The Government may seek the advice of qualified non-Federal personnel. The Government may also use non-Federal personnel to conduct routine, nondiscretionary administrative activities. The respondents, by submitting their response, consent to the Office providing their response to non-Federal parties. Non-Federal parties given access to responses must be subject to an appropriate obligation of confidentiality prior to being given the access. Submissions may be reviewed by support contractors and private consultants.

REQUEST FOR INFORMATION RESPONSE GUIDELINES:

Responses to this RFI must be submitted electronically to RequestforInformationFOA3262@netl.doe.gov with the subject line "DE-FOA-0003262-RFI" no later than 5:00 p.m. (ET) on **February 23, 2024**. Responses must be provided as attachments to an email. It is recommended that attachments with file sizes exceeding 25 MB be compressed (i.e., zipped) to ensure message delivery. Responses must be provided as a Microsoft Word (*.docx) or Adobe Acrobat (*.pdf) attachment to the email, and no more than 15 pages in length, 12-point font, 1-inch margins. Only electronic responses will be accepted.

DOE will not respond to individual submissions or publicly publish a compendium of responses. However, information included in any submission may still become public via a requirement to disclose under the Freedom of Information Act or other federal law or regulation. A response to this RFI will not be viewed as a binding commitment to develop or pursue the project or ideas discussed.

DOE requests respondents provide the following information at the start of their response to this RFI:

- Company/institution name
- Company/institution contact
- Contact's address, phone number, and e-mail address.

FOA INFORMATION (IF ISSUED)

If a FOA related to this RFI is released, it is anticipated that it will be posted at Grants.gov (<http://www.grants.gov>) and at FedConnect (<http://www.fedconnect.net>). Entities who may be interested in applying for awards under a possible FOA are strongly encouraged to perform the registration actions listed below. Registration at these sites will allow you to receive notification of announcements regarding the FOA, if issued. If DOE decides to issue a FOA, applications can only be submitted consistent with the FOA instructions. The registration actions below are not required to be completed to respond to the RFI.

There are several one-time actions an applicant must complete to submit a Full Application in Grants.gov (e.g., register with the System for Award Management (SAM), obtain a Unique Entity Identifier (UEI), register with Grants.gov, and register with FedConnect.net to submit questions). Applicants who are not registered with SAM and Grants.gov, should allow at least 44 days to complete these requirements. It is suggested that the process be started as soon as possible.

- **UEI** - Applicants must obtain an UEI from the SAM to uniquely identify the entity. The UEI is available in the SAM entity registration record.
- **SAM** - Applicants must register with SAM at <http://www.sam.gov/> prior to submitting a Full Application in response to an FOA. NOTE: Designating an Electronic Business Point of Contact (EBiz POC) and obtaining a special password called an MPIN are important steps

in SAM registration. Failure to register with SAM will prevent an organization from applying through Grants.gov. **The SAM registration must be updated annually.** More information about SAM registration for applicants is found at: https://www.fsd.gov/gsafsd_sp?id=gsafsd_kb_articles&sys_id=650d493e1bab7c105465eaccac4bcbcb

- **Grants.gov** - Applicants must register with Grants.gov and set up a Workspace. An applicant cannot submit a Full Application through Grants.gov unless it is registered. Please read the registration requirements carefully and start the process immediately.

- 1) The Authorized Organizational Representative (AOR) must register at: <https://www.grants.gov/register>
- 2) An email is sent to the E-Business (E-Biz) POC listed in SAM. The E-Biz POC must approve the AOR registration using their MPIN from their SAM registration.

More information about the registration steps for Grants.gov is provided at: <https://grants.gov/applicants/applicant-registration>

FedConnect.net - Applicants must register with FedConnect to submit questions to a FOA. FedConnect website: www.fedconnect.net/