



ADDENDUM #4
Office of Sustainability, Climate Action & Resilience
Climate Innovation Fund
RFQ # 7339-22

May 6, 2022

The attached addendum supersedes the original Information and Specifications regarding RFQ # 7339-22 where it adds to, deletes from, clarifies or otherwise modifies. All other conditions and any previous addendums shall remain unchanged.

Please note: Due to COVID-19, BIDS will only be accepted electronically by emailing purchasing@bouldercounty.org.

1. Question: This RFP appears to be directed toward a research organization or consultancy as the prime contractor. Would you consider a proposal from a local property owner who provides the host site for the proposed project as the prime contractor?

ANSWER: Yes.

2. Question: The CO2 sequestration template allows for up to 20 years for the calculation of costs and benefits. However, the MRV plan does not specify a timeline. How long does the County expect the successful bidder to monitor and report on results?

ANSWER: The County expects the successful bidder to monitor and report on carbon storage outcomes to the maximum extent possible according to the anticipated durability term (i.e., how many years the carbon is likely to be stored with a high degree of confidence). This will vary depending on the project type, but should reflect criteria for the treatment of MRV for best-in-class projects as specified in the link below. Bidders are also required to follow any established state and/or federal regulatory guidelines related to the monitoring of carbon storage for their projects. Please reference this for what we mean by best-in-

class projects: https://carbon-direct.com/wp-content/uploads/2021/09/Criteria-for-High-quality-Carbon-Dioxide-Removal_September-2021.pdf

3. Question: What is the expected invoicing and payment procedure? Do you expect the successful bidder to submit monthly invoices for time and expenses or will you use a deliverables-based progress payment approach? If progress payments, will they be tied to the completion of MRV reporting?

ANSWER: We are still determining what is the best payment approach for this fund. Depending on the request, we may consider granting 50% of the funds upfront and 50% upon completion depending on the needs of the particular awardee. The other approach is to submit reimbursement requests quarterly. Again, we are considering the best approach for invoicing and payments since this is a brand new fund.

4. Question: What is the expected timeline and final deliverables end date for the project?

ANSWER: The expected timelines will vary by project, so we are comfortable with bidders proposing their ideal timeframe for their specific project.

5. Question: Does the County have any preferred practices or approaches for demonstrating the carbon sequestration potential from urban landscaping and urban agriculture?

ANSWER: The County does not have specific preferred practices or approaches for demonstrating carbon sequestration potential from urban landscaping and urban agriculture. Competitive proposals will reference existing methodologies and approaches from credible sources.

6. Question: Is this RFQ *specifically* looking for physically-built/construction projects? And if not, would you consider an application focused on building policy solutions to climate change? WRA works at the policy level with local communities and other stakeholders to develop and implement smart policies that reduces carbon emissions from utilities, protects our natural lands, and restore the Colorado River. Nearly all of our work in Colorado impacts Boulder County, so we'd be interested in finding out whether the type of work we do would be considered in this RFQ process.

ANSWER: The Climate Innovation Fund is prioritizing proposals targeting actionable and measurable climate impacts in both the built and natural environments. WRA has an incredible history of positively impacting Boulder County and the region with climate protective policy work, so we do suggest

reaching out to the Office of Sustainability, Climate Action, & Resilience for other potential partnerships geared toward supporting aligned policy work.

7. Question: Can you define the wildlife urban interface? Is there a specific definition that OSCAR uses for what is the WUI?

ANSWER: We recommend you use the following resource from the USFS Rocky Mountain Research Station when considering definitions of WUI.

<https://www.fs.usda.gov/rmrs/research-topics/wildlandurban-interface/science-spotlights>

8. Question: Can Boulder County recommend specific types/models of carbon removal monitoring which are considered ‘solid’ or of high standard?

ANSWER: High-standard carbon removal monitoring will vary across project types. Monitoring, reporting, and verification (MRV) involves the development of and adherence to a plan for long-term monitoring of the project for the purposes of quality assurance. This includes adherence to national and subnational regulatory regimes, project development methodologies, and registry protocols where applicable, if your project type has a registry protocol, we recommend that you start there. Key considerations include:

- Project developers should show the modeled (anticipate) performance of proposed projects
- During operation, project developers should directly measure carbon removed rather than rely on estimates from modeled processes
- Project developers should obtain third-party verification of their carbon removal process and removal volumes
- MRV methodologies are constantly evolving. Developers should adapt
- MRV practices based on the best available science and industry practices

If you are not already familiar with estimating emissions reductions from your project, you might consult existing offset methodologies. You would not need to do all of the detailed calculations for the RFQ’s back of the envelope calculations request, but could apply the overall approach to your project. The types of projects able to sell offset credits on the offset market are defined by methodologies (also called protocols). Most of these are from these offset project registries: Climate Action Reserve, American Carbon Registry, Clean Development Mechanism, Verra, and California Air Resources Board. A comprehensive list of methodologies and sampling methodologies for different project types can be found on each registry’s website.

For reductions of non-CO2 GHG emissions, please use the IPCC AR5 100-year Global Warming Potentials:

https://www.ghgprotocol.org/sites/default/files/ghgp/Global-Warming-Potential-Values%20%28Feb%2016%202016%29_1.pdf

9. Question: Who is the selection committee?

ANSWER: The selection committee will be Susie Strife, Director of the Office of Climate Action & Resilience, Tim Broderick, Senior Sustainability Strategist Boulder County, Lauren Gifford, Carbon Direct, Sarah Federman, Carbon Direct, Tim Bushman, Carbon Direct and Jane Zelikova, Carbon Direct and potential partners from City of Boulder's Natural Climate Solutions team.

10. Question: Is part of Carbon Direct's role to assist in developing CDR monitoring strategies for the awarded projects?

ANSWER: Carbon Direct will not be assisting in the development of MRV strategies for the awarded projects; that responsibility lies solely with the project bidder. However, Carbon Direct can help advise on means to refine MRV considerations for those project(s) that ultimately receive an award through the RFP as deemed appropriate by both Carbon Direct and Boulder County. If there are constraints to MRV, please indicate this in the application so there is a shared awareness of barriers to quantitative measurement.

11. Question: Would a project which includes a forestry and agricultural component be considered/competitive? The pilot projects sites would be geographically distant, but the objectives and monitoring methods are shared.

ANSWER: Yes, as long as the pilot project is located in this region, as this funding is specifically for projects within Boulder County and the region.

12. Question: Are qualitative monitoring methods (like photo points of vegetation growth) considered to be a viable form of monitoring or are quantitative methods preferred?

ANSWER: Qualitative methods can be helpful tools for illustrating and understanding project stage, needs, and impact. However, for the purposes of monitoring, reporting, and verification (MRV) of project outcomes, both from a CDR and resilience perspective, we will want to see measurable and quantifiable methods. If there are constraints to MRV, please indicate this in the application so there is a shared awareness of barriers to quantitative measurement.

13. Question: Can Boulder County recommend local partners for the CDR monitoring component of the grant?

ANSWER: Bidders should feel encouraged to seek potential partnership opportunities with local academic and private industry groups to conduct the MRV portion of their carbon project. However, we do not intend to provide a list of such entities for the purposes of this RFQ/RFP.

14. Question: Does Boulder County consider the scaling of a regional fungal inoculant production facility for the purposes listed above a competitive proposal for the 2022 Climate Innovation Fund, and would endorsement from public departments regarding use of such inoculant including: Boulder County OSCAR, Boulder County Open Space, Boulder OSMP, Jefferson County Open Space, NRCS, CO State Forest Service increase competitiveness of such proposal?

ANSWER: If a project proposal clearly highlights measurable and verifiable climate benefits related to both (or either) carbon sequestration and ecosystem resilience it will be considered highly competitive. Project proposals are welcome to submit letters of support as supplementary materials.

15. Question: We are currently working with various partners on related initiatives and projects. Based on the priorities laid out in the 2022 Climate Innovation Fund, does Boulder County consider a more robust proposal to be 1) a holistic application with 4+ project partners, each with designated roles and functions within a larger project, with a unifying theme of using fungal inoculation to address issues shared between regenerative agriculture and forestry, or 2) a proposal involving 1 organization with the specific purpose of scaling the production of fungal inoculant for use in various projects throughout the state –including but not limited to the abovementioned partnership?

ANSWER: You are welcome to submit a project with multiple partners focused on a discrete application or a proposal for a technical solution with multiple potential applications. We welcome all project types to apply. However, the reviewers will prioritize proposals targeting actionable and measurable climate impacts in both the built and natural environments.

16. Question: If the development of a scaled production facility for liquid fungal inoculant is the purpose of the application to the 2022 Climate Innovation Fund, what is the breadth of data collection and monitoring with respect to carbon sequestration required by Boulder County? If inoculant is being produced for various projects in different municipalities, would it be desirable to choose 1-2 projects as monitoring sites, or would it be required to provide data and reporting from numerous or all active project sites?

ANSWER: We will request that you submit a full life cycle assessment (LCA) as part of the full proposal. Please keep that requirement in mind when scoping the scale of your proposal. In terms of monitoring locations, please choose a statistically representative and significant sample size that encompasses regional variations in climate and project site ecosystem.

17. Question: Does creation of such a facility for the purpose of possible future contracting for Boulder County to decompose woody biomass in the context of wildfire mitigation (or other contexts) assist the competitiveness of the proposal in any way?

ANSWER: The competitiveness of a proposal will primarily be determined based on the merits of the proposed project under consideration (in the immediate sense in terms of deployment). However, Boulder County is also interested in the ability of any project to scale to higher volumes of carbon removal in the future (both in a local and broader geographic context). Boulder County may therefore view projects with higher scalability potential (without material negative environmental impacts associated with the scaling process) as an additional benefit to any project proposal.

18. Question: My project would seem to fall squarely under "technology or engineered solutions...carbon utilization and circularity" per the guidance in the RFQ document. Could you confirm that it is indeed a good match for the RFQ/RFP?

ANSWER: Yes.

19. Question: Short of conducting a comparative life cycle assessment of the BAU case versus CO2NSCIOUS CO2, would the GHG Protocol guidance on reporting purchased CO2 in the beverage sector be an acceptable methodology to demonstrate the emissions reduction potential of CO2NSCIOUS? If so, should this be included in the template provided for the RFQ (and how), or saved for the RFP?

ANSWER: The emissions reduction potential of CO2NSCIOUS technology should be described using a full cradle-to-grave life cycle assessment tool. Any purchase of CO2 from the merchant market should be included in the RFQ submission and factored into the life cycle assessment table in Addendum 2 [here](#). Use of the GHG Protocol guidance to report purchased CO2 would be permissible.

20. Question: If selected for the RFP, will Carbon Direct be able to provide technical guidance to complete a comparative analysis of emissions from industrial CO2 and CO2NSCIOUS CO2?

ANSWER: If selected for the RFP, Carbon Direct can help provide technical guidance to complete a comparative analysis of CO2 sourcing if it is determined to be germane to the successful outcome of the project.

21. Question: To what degree will the evaluation of the RFQ/RFP consider the strategic benefits that CO2NSCIOUS can bring to multiple industries that play a vital role in our economy and culture in Colorado?

ANSWER: The evaluation of proposals will consider co-benefits and project impact potential to include support for local economic development. The capability and potential ease to retrofit any carbon capture technology to existing systems across different industries should be stated in the proposal, along with an estimate of the volume of CO2 intended to be captured from emissions sources over time.

22. Question: How should incomplete emissions data be addressed in the cost per ton calculations template?

ANSWER: For the RFQ, identifying the uncertainties and assumptions in calculations will be sufficient. For second-stage submissions we may ask for additional information or suggest that you use representative emissions factors in your calculations.

23. Question: I have used data from Colorado's Marijuana Enforcement Division (2020 Annual Update) and emissions factors from EPA WARM to estimate the amount of CO2 sequestered on an annual basis by composting cannabis plant disregards at an industrial composting facility. Is this an acceptable approach? We envision carbon farming on agricultural lands as a strategy to render organic discards from the Cannabis sector and sequester carbon. Has the county investigated this, and would it consider a pilot program to demonstrate this in Boulder County? if so, should this be incorporated into my application to the RFP/RFQ?

ANSWER: Yes, utilizing the EPA WARM model is currently a great tool to estimate carbon mitigated by waste diversion of organics. The county has not investigated this but there are conversations happening right now between cannabis growers and a pilot program funded OSCAR's sustainable food and ag. fund to create compost for agricultural use with Eco Cycle. You are welcome to include it in your RFP response. I would strongly advise to address the end markets that would purchase or want the compost created from cannabis operations. I also recommend addressing how you plan to address the new rules for composting of cannabis waste in your composting operation. Specifically the required 50/50 marijuana-to-waste ratio.

24. Question: My project is designed as a circular economy network. It requires a single network, consisting of 1 large craft brewery and 3 to 5 CO2 users/subscribers, to launch. Following a regional development plan, it will be expanded in hub and spoke fashion to service the top 10 to 20 regional craft breweries in Colorado and tens of indoor cultivations in the Front Range Region.

I've completed the template based on the anticipated launch scenario. Would it be acceptable to complete a second tab for the regional development plan? And, for a CCU project such as CO2NSCIOUS, is 10 years sufficient or should projections be provided for 20 years?

ANSWER: We are interested to see how proposals identify opportunities to scale. If you want to include additional documentation or calculations supporting expansion or scaling plans you are welcome to do so. Please calculate your projections over the anticipated durability term of the CCU. If this is 10 years, you can stop there. If longer, please expand.

25. Question: At what stage must innovations be? Can the grant be used to build and test prototypes and new concepts?

ANSWER: We welcome innovations at any stage. The Climate Innovation Fund will consider proposals for testing new concepts and prototypes.

26. Question: Can grant funds be used to innovate around adjacencies such as carbon storage solutions?

ANSWER: The Climate Innovation Fund will consider proposals innovating around adjacencies. We recommend that proposals include an application component with measurable outcomes.

27. Question: Can the grants extend to prototyping personal (citizen) web3 decarbonizing systems to help "nudge" Boulder county residents to decarbonize lifestyles?

ANSWER: While web3 has some very important applications to decarbonization, we are not accepting proposals to support web3 approaches.

28. Question: Are there decarbonization/ mineralization assets that can be leveraged by grant participants? Land and geography, stocks of materials, carbon storage sites: what do RFP participants have to work with?

ANSWER: We encourage all bidders to undertake the necessary research to understand what type of assets can be leveraged across this region for carbon removal and landscape resilience.

29. Question: Is this grant part of any other strategic decarbonization plan or overarching climate initiative?

ANSWER: Boulder County has an overarching climate plan, which is currently being updated to reflect our commitment to both deep emissions reductions/mitigation and the necessary counterpart of carbon dioxide removal. Please see the climate chapter of our sustainability plan for more information. Again, this will be updated by summer 2022.

<https://www.bouldercounty.org/environment/sustainability/climate-change-2/>

30. Question: We may be having a problem with the excel template. It is open but there are no built-in formulas. It appears from the structure that this was intended. We fill out the Amber sections and the rest self-populates. Is that correct?

ANSWER: Thank you for catching this! We are re-sharing a version of the template with embedded calculations. Below are instructions for data entry and use.

Estimating \$/ton CO2e:

Cost per ton is a measure of the funds needed to enable the proposed project to be implemented and to operate. This measure gives us an understanding of the funding needed to generate the expected emissions reductions.

Please include your cost per ton estimate (which can be a range) and a discussion of the major costs over the project lifetime (upfront and operational), taking into account any revenues other than the sale of offsets.

Template Instructions:

The template is set up to estimate, at a high-level, the cost of offsets per ton of CO2e emissions avoided or sequestered. The idea is to capture the funds needed to create the offsets from project implementation to its final year of operations. The template automatically calculates net cost per ton each year of the project life and the levelized cost per ton CO2e for the project as a whole.

At the top of the template are "Summary Calculations," which are based on inputs provided below under "Detailed Line Items." You can enter your estimates in either section.

For project implementation costs (design, construction, initial supplies, etc.) please sum all of these expenses and provide them under year "0." In some cases a project may have other sources of funds such as grants - these funds should be included as revenues to the degree that they are part of the offset project.

Many projects will not have revenues. Examples of projects with revenues are those that involve producing a product that is sold, like electricity or biogas. Other grants can also be considered as revenues as could the sale of replaced equipment.

The net cost of implementing and operating the offset project may be only the incremental increase in cost above the baseline scenario. For example, the costs of implementing a high efficiency boiler might only be the difference in costs between the high efficiency boiler and a standard boiler that would otherwise have been needed to replace an old boiler. These costs might be lessened over time by cost savings from the more efficient system. If avoided costs affect the funds needed to implement and operate the project, you can enter avoided costs in the Avoided Costs section.

If your project idea has multiple phases or is a pilot for a larger project, as possible, please estimate the cost per ton for each phase. You can do this in a single spreadsheet that includes both/all phases, or in separate spreadsheets.

The project life will differ per project. We have included twenty columns for input, for twenty years of the project life. Feel free to use only some of those columns if the project life is shorter than twenty years, or to add columns if it is longer.

The default discount rate is 6.5%

Feel free to add rows or sections as needed to fit your project, as well as to use the space at the bottom as a worksheet.

Submittal Instructions:

Submittals are due at the email box only, listed below, for time and date recording on or before **2:00 p.m. Mountain Time on May 27, 2022.**

Please note that email responses to this solicitation are limited to a maximum of 50MB capacity.

NO ZIP FILES OR LINKS TO EXTERNAL SITES WILL BE ACCEPTED. THIS INCLUDES GOOGLE DOCS AND SIMILAR SITES. ALL SUBMITTALS MUST BE RECEIVED AS AN ATTACHMENT (E.G. PDF, WORD, EXCEL).

Electronic submittals must be received in the email box listed below. Submittals sent to any other box will NOT be forwarded or accepted. This email box is only accessed on the due date of your questions or proposals. Please use the Delivery Receipt option to verify receipt of your email. It is the sole responsibility of the proposer to

ensure their documents are received before the deadline specified above. Boulder County does not accept responsibility under any circumstance for delayed or failed email or mailed submittals.

Email purchasing@bouldercounty.org; identified as **RFQ # 7339-22** in the subject line.

All proposals must be received and time and date recorded at the purchasing email by the above due date and time. Sole responsibility rests with the Offeror to see that their bid is received on time at the stated location(s). Any bid received after due date and time will be returned to the bidder. No exceptions will be made.

The Board of County Commissioners reserve the right to reject any and all bids, to waive any informalities or irregularities therein, and to accept the bid that, in the opinion of the Board, is in the best interest of the Board and of the County of Boulder, State of Colorado.



**RECEIPT OF LETTER
ACKNOWLEDGMENT**

May 6, 2022

Dear Vendor:

This is an acknowledgment of receipt of Addendum #4 for RFQ #7339-22, Climate Innovation Fund.

In an effort to keep you informed, we would appreciate your acknowledgment of receipt of the preceding addendum. Please sign this acknowledgment and email it back to purchasing@bouldercounty.org as soon as possible. If you have any questions, or problems with transmittal, please call us at 303-441-3525. This is also an acknowledgement that the vendor understands that **due to COVID-19, BIDS will only be accepted electronically by emailing purchasing@bouldercounty.org.**

Thank you for your cooperation in this matter. This information is time and date sensitive; an immediate response is requested.

Sincerely,

Boulder County Purchasing

Signed by: _____ **Date:** _____

Name of Company _____

End of Document