

Guidance document

Microsoft carbon dioxide removal procurement cycle

Background

Microsoft's carbon negative commitment requires that we reduce our value-chain greenhouse gas (GHG) emissions by over half by 2030, remove the remaining emissions, and then remove the equivalent of our historical emissions by 2050. In the first two years of our carbon dioxide removal (CDR) program, we contracted for close to 2.8 million metric tons (mt), and we publicly shared our lessons learned in two briefing papers from [FY21](#) and [FY22](#). Our key goal in the next year is to continue adding near-term tons (up to an additional 2 million mt by June 2023) and, even more, to identify long-term offtake opportunities for the coming decade that will help us scale to ~5 million mt annually by the year 2030.

This is one of two prongs of the Microsoft effort to meet our carbon removal commitment:

1. Procure high-quality CDR tonnage (covered by this intake form).
2. Invest in CDR technologies through the [Climate Innovation Fund](#) (not covered by this intake form).

We have an opportunity to drive demand for high-quality carbon removal methods through our criteria, projects, and market innovations. We are committed to supporting solutions that contribute maximum positive impact, transparency, and collective market intelligence to address the global climate crisis at this critical time. We place a strong emphasis on measuring and verifying net-negative emissions to a high degree of scientific confidence, through both officially certified credits and alternative modes of verification.

Reflections from our first two years

In the first year of our program, we learned [key lessons](#) we will incorporate going forward:

1. **Emphasize straightforward accounting of carbon removal.** Our definition of a net-negative carbon removal project is one that is additional, makes defensible claims for the durability (permanence) of its carbon sequestration, and appropriately accounts for any leakage.
2. **Place bigger bets.** To source the volume that we need, we will prioritize projects that have large volumes available for this fiscal year and that are seeking multi-year commitments. We are still interested in supporting small pioneering projects as a secondary priority.
3. **Be open to projects outside the existing carbon market infrastructure.** There are worthy projects that have not been officially certified by registries, and we want to encourage their growth while staying rigorous with our accounting.
4. **Refine the process.** We have refined our review process and streamlined our due diligence requests. Partnering with Carbon Direct, we are also publishing our [criteria for high-quality carbon removal](#) that we will use when evaluating all projects. These criteria should allow organizations to self-evaluate whether their projects fit our needs.

In the second year of our program, we reflected on the previous year's lessons and added three [key lessons](#) we will add to our collective lessons going forward:

1. **The market lacks strong, common definitions and standards.** We have developed and communicated our own criteria, and other corporate buyers have done the same. This means that organizations are working in isolation and tracking outcomes in different ways that cannot be compared easily. This leads not only to inefficiency but also to inconsistencies in claims.
2. **High-durability solutions are critical, but supply is limited and expensive, and many companies cannot yet afford them at scale.** We need expensive, higher durability solutions to become more affordable. Multiyear demand commitments, direct investment, and supportive policies are all critical to driving costs down.
3. **Forestry and soil carbon removal face sobering challenges in quality but offer short-term climate value and co-benefits beyond carbon removal.** Challenges with nature-based solutions underline the fact that removal is not a uniform commodity that can be compared easily across project types. However, we believe that corporate support for nature-based carbon removal remains essential. We have taken critiques of nature-based solutions seriously and developed our own approaches to mitigating risk with these project types.

Desired outcomes

Our desired outcomes in issuing this procurement effort are to:

1. Procure high-quality CDR tonnage in the volumes needed to meet our near-term and, especially, initiate multi-year contracts to fulfill our future needs.
2. Establish and communicate best practices for high-quality projects.
3. Support projects that use emerging innovative technologies with higher durability and significant potential for scale.
4. Discover and share insights on market dynamics of high-quality CDR, including pricing.
5. Understand how Microsoft can encourage a diverse, equitable, and inclusive CDR supply chain and partner ecosystem.

Project types

We will consider CDR proposals from the following project types. This list is non-exhaustive; we invite other approaches not listed here that meet our specifications.

Project types (in all cases, removal only)

- Nature-based solutions (managed ecosystems)

- Forestry
 - Afforestation/reforestation
 - Improved forest management
 - Agroforestry/silvopasture
- Soil improvement that results in additional carbon storage
- Coastal blue carbon
- Engineered carbon removal
 - Direct air capture and storage
 - Carbon dioxide mineralization (terrestrial, including enhanced weathering)
 - Ocean alkalinity enhancement
 - Biomass conversion with carbon removal and storage (BiCRS), including:
 - Bioenergy with carbon capture and storage (BECCS)
 - Biochar
 - Carbon dioxide utilization (using strictly biogenic sources of carbon dioxide)
- Other project types that meet our prerequisite requirements

Application due dates

Organizations are welcome to submit proposals throughout the year. These horizons are subject to updates on an annual basis.

- FY23 offers: We will fulfill our FY23 portfolio (July 2022 – June 2023) on a first come, first served basis, prioritizing projects with high quality and high volume. When project proponents confirm that their projects meet our prerequisites, we strongly encourage them to apply as soon as possible. **The cutoff date to be considered for our FY23 portfolio is July 15, 2022.** In other words, if you have volume deliverable before the end of June 2023, submit this for consideration no later than July 15, 2022.
- Future offers: We will consider proposals for future-year (including multi-year) procurement throughout the year and this intake form will thus remain for the foreseeable future. In other words, if you have volume deliverable past June 2023, you may submit that at any time.

Application process and timelines

We are committed to a thorough review of each proposal for all prerequisites and criteria through a **two-step application process**. The first step starts once a proposal is submitted directly through

<http://aka.ms/carbonremovalapplication>. We conduct a thorough prerequisite review which encompasses all prerequisites mentioned within this document as well as the criteria document, co-authored by our advisor Carbon Direct, [Criteria for high-quality carbon removal](#).

When a project meets our minimum prerequisites, it moves on to our due diligence phase. This includes a [secondary application](#) to further investigate how the project meets the specifications laid out in our [Criteria for high-quality carbon removal](#).

In general, given the novelty of the carbon removal space, the complexity of many pathways to removals, and the lack of strong, common removal standards, **it takes 2-3 months to complete this process** and come to a decision on whether a project is desirable. We encourage applicants to submit a proposal with plenty of time ahead of any key deadlines on the applicant's side. For those applicants aiming for a **multi-year contract, be aware that diligence and negotiation may take 6-9 months** or more, depending on specifics.

Reminder: To be considered for our FY23 portfolio, the last day you can apply is July 15, 2022. We strongly recommend you submit your proposal as soon as possible because we will review proposals in the order received. We will fill our portfolio on a rolling basis.

For those proposals without tonnage available in FY23, there is no deadline to submit.

Prerequisites and considerations

For projects in development at this time, we understand you may not have final answers to many of these questions. In this case, please answer to the best of your ability and indicate any uncertainties.

We will purchase tonnage *only* from projects that meet the minimum viable specifications detailed in our [criteria for high-quality carbon removal](#). We place special emphasis on:

1. **Net-negativity.** Removing net atmospheric carbon dioxide on a lifecycle basis.
2. **Scientific verification.** Verifying carbon removal claims to a high degree of confidence. All projects, regardless of certification status, will go through comprehensive independent review of project documents and underlying scientific studies to assess the extent to which they fulfill [our criteria](#).
3. **Environmental justice.** Avoiding or minimizing economic, environmental, and social harm (including but not limited to continued reliance on fossil fuel energy, deforestation, environmental impact due to mining of raw materials, water consumption, impacts to Indigenous/local rights, or violation of national sovereignty).

If projects do not meet the preceding prerequisites, they will not be qualified for further consideration. Of the projects that meet the preceding considerations and our [criteria](#), we will prioritize projects that fulfill one or more of the following criteria:

- **Global CDR potential**—represents a project type that contributes meaningfully to a global carbon removal portfolio, based on peer reviewed science.
- **Affordability**—has a path to affordability at scale (for example, \$100/metric ton in 5–10 years).
- **Technology innovation**—uses technology innovation to improve carbon market outcomes (for example, reduces certification cost per mtCO₂, democratizes selling/buying opportunities, and/or overcomes other barriers to scale).
- **Pursue co-benefits**—by advancing sustainable livelihoods and environmental justice, building climate resilience, supporting water conservation, and protecting ecosystems and biodiversity.
- **Other sustainability dimensions**—proactively promotes other measurable sustainability objectives (such as water stewardship, waste reduction, biodiversity protection).

Criteria for high quality carbon dioxide removal

In partnership with Carbon Direct, we have developed [criteria for high quality carbon dioxide removal](#) for the most common carbon removal project types. These are drawn from our experience over the last two years. Please note that not all project types are covered in the criteria, as some project types are too nascent for common specifications. ***We strongly encourage you to review these criteria to understand whether your project is a good fit before submitting your proposal.***

Participants

We will consider tonnage from brokers and project developers, including but not limited to for-profit organizations, nongovernmental organizations, international governmental organizations, and other public sector entities. In alignment with [Microsoft's Supplier Diversity Program](#), we seek to include diverse suppliers in the bidding process.

Publication of materials

Consistent with our commitment to drive maximal positive impact, transparency, and collective market intelligence in the early years of carbon removal market development, we plan to publish:

- **All** project information submitted via this intake form, **excluding** contact information and other questions marked confidential. While specific project-level pricing data will not be made public by

Microsoft, Microsoft will use aggregate pricing information with no reference to source in median, average, and other anonymized analyses, and Microsoft may share the aggregated datasets broadly in the public domain.

- Our criteria for selection.
- Our list of projects selected for our carbon removal portfolio.

Note that this commitment to publication strictly pertains to the documents submitted under this procurement intake form, **not** other materials shared under pre-existing NDAs with Microsoft or during subsequent due diligence on projects. Applicants should be deliberate about the information they include in proposals—we are unable to address requests to subsequently change language or remove answers.

Confidentiality

Microsoft is committed to transparency in this procurement process. **By submitting a proposal to this intake form, participants agree to the public disclosure of certain information that is contained in their submittal, as noted previously.** By submitting a response, Participants accept these terms and waive any privacy rights to submitted information, with exceptions noted in the [Procurement Cycle Cover Letter](#). For more information, please see Microsoft's privacy statement, which can be found at privacy.microsoft.com/privacystatement.