Carbon180

September 11, 2023

To Whom it May Concern:

The Responsible Carbon Management Initiative ("Initiative"), created by the Department of Energy (DOE)'s Office of Fossil Energy and Carbon Management (FECM), is an opportunity to help build a trustworthy carbon management industry that directly benefits communities. The success of the Initiative will be contingent on the meaningful integration of environmental equity and justice into the Principles for Responsible Carbon Management Projects ("Principles"). The Principles can also be applied widely to federally funded carbon management projects such as the Carbon Dioxide Removal (CDR) Purchase Prize. FECM should design and structure the Initiative and the Principles to promote procedural justice, distributive justice, accountability, strong safeguards, and community self-determination.

Below, we provide recommendations for how to enhance the Initiative and the Principles to purposefully advance responsible, equitable, and community-driven carbon management projects. We also include direct edits to the text of FECM's Principles (denoted in red). These reflect our best attempt to provide the office with not only high-level feedback, but specific recommendations to translate that feedback into specific Principles language.

Sincerely,

Sasha Stashwick
Director of Policy

Carbon180 is a DC-based NGO on a mission to reverse two centuries of carbon emissions. We design and champion equitable, science-based policies that bring carbon removal solutions to gigaton scale.

Question 1: Would the Initiative and the Principles be likely to meaningfully advance responsible carbon management? If not, what changes could be made to better advance this goal?

Recommendation: DOE should integrate dimensions of environmental justice and pair the Initiative with strengthened Community Benefits Plans (CBPs) and Congressional action.

Yes, the Initiative has the potential to further demonstrate the federal government's commitment to equity and justice, building on current efforts like the administration's Justice40 Initiative and DOE's CBPs. Some technologies under the carbon management umbrella, such as direct air capture, are still fairly nascent, without many on-the-ground projects currently operating. Early deployers will need assistance to set a strong example for the industry. The Principles could send an important signal and provide critical guidance to the private sector on what they should strive to accomplish in their projects in order to benefit communities and earn social license.

In addition to the Initiative and the Principles, DOE could strengthen the requirements and expectations associated with CBPs. Based on conversations with carbon removal and environmental justice practitioners, Carbon180 developed [recommendations for improvements to CBPs in the Regional DAC Hubs program](#) that could be applied to CBPs across carbon management technologies, as well as to projects more generally.

Similar to the findings in [*From the Ground Up: Recommendations for Building an Environmentally Just Carbon Removal Industry*](#), DOE will need to ensure the Principles address at least three dimensions of environmental justice in order for carbon management projects to be successful. Procedural justice, fairness in decision-making processes, distributive justice, equitable allocation of project risks, benefits, and impacts, and reparative justice (acknowledgment and repair of past harms).

In the long run, to ensure all federally supported carbon management projects are rooted in equity and justice, Congress should pursue a [holistic legislative agenda](#), including via the budget [appropriations](#) process, that promotes labor and economic opportunities, ensures robust community outreach and engagement, supports the provision of technical and financial assistance, enables research, development, and deployment of key technologies, and strengthens regulations.

Recommendation: No, DOE should include two additional Principles, as detailed below.

In addition to Carbon180's set of [guiding principles for building equitable and just carbon removal](#)**,** we propose including two additional Principles: *accountability* and *community self-determination*.

Accountability

It is important to hold project developers accountable for the climate, environmental, public health, economic, and social impacts of their projects. Mechanisms for accountability, such as legally enforceable community benefits agreements (CBAs) and robust monitoring, reporting, and verification (MRV) protocols, help protect and empower communities in project development and deployment processes, as well as ensure that project developers will act responsibly (or be held responsible if they do not perform as such).

- *Example 1 — CBA:* FECM should encourage project developers to commit to entering into legally enforceable community and labor agreements. Through enforceable agreements like CBAs, communities can stipulate the labor opportunities, quality of life considerations, and environmental benefits they want to see delivered through a carbon management project. To be truly effective, CBAs should be negotiated with a comprehensive range of community stakeholders (e.g., environmental justice, labor, religious, and environmental and climate groups, Tribes, academia, and local government) with clear metrics for measuring the success of benefits over time, acceptable mitigation and compensation measures for potential adverse project impacts, and penalties for noncompliance.

- *Example 2 — MRV:* FECM should encourage project developers to follow robust MRV protocols. MRV is the process of accounting for all of the emissions, energy use, and environmental and public health impacts associated with a carbon removal project to determine its net climate impact. For an MRV protocol to enable accountability and, therefore, trust, it must ensure direct accounting of removal and impacts, traceability of carbon removal over time, data transparency, and appropriate incentive structures.

Community self-determination

Host communities should be granted the right and responsibility to choose and direct the projects that will impact their lives and livelihoods. Community decision-making power and self-determination are central to both the environmental and climate justice movements. Yet the vast majority of community engagement processes today often do not promote community self-determination. FECM should encourage project developers to work with a comprehensive range of community stakeholders (e.g., environmental justice, labor, religious, and environmental and climate groups, Tribes, academia, and local government) to finalize project components, including site location, through consent-based processes such as DOE's Consent-Based Siting Process for Federal Consolidated Interim Storage of Spent Nuclear Fuel. FECM's Principles should also seek a commitment from project developers to integrate at least one decision point in the project timeline where communities can vote to veto or end the project.

Specific language that FECM could use to incorporate additional *accountability* and *community self-determination* principles has been added in red further below: (see section II). Moving forward, FECM should undertake an exploration process with assistance from DOE's Office of Nuclear and the White House Environmental Justice Advisory Council to identify mechanisms for community self-determination in carbon management projects.

Question 3: In what ways, if any, could the Principles be revised to better reflect responsible carbon management?

Recommendation: DOE should enhance its Principles to empower disadvantaged communities through participatory processes, ensure delivery of community-defined environmental and economic benefits, enable robust and transparent MRV, and safeguard vulnerable communities.

We have provided direct edits to the current text of the Principles in section II below. DOE should also consider integrating recommendations from the Office of Clean Energy Demonstration's Guidance for Creating a Community Benefits Plan for Regional Direct Air Capture Hubs.

In summary, FECM should integrate the following considerations to enhance the content of the Principles:

Community engagement

a) *Accurate community and stakeholder identification:* One of the first steps in community engagement is identifying the stakeholders in and rights-holders to engagement. Good community engagement demands defining a community appropriately and engaging with a comprehensive range of stakeholders. FECM should encourage project developers to pay particular attention to historically marginalized communities and stakeholder groups, such as communities of color and low-income communities, who have often been excluded from both planning and decision-making in engagement processes. Likewise, the office should direct developers to use screening tools, such as the Climate and Economic Justice Screening tool, to identify these communities and some of the injustices they experience that may impact their ability to participate in the engagement process. A best practice for project developers is to use a mixture of federal- and state-level equity screening tools to assist in this identification process, as different tools draw from different data sources and may focus on different community characteristics.

b) *Acknowledging a community's history:* In addition identifying a community, understanding its history is essential to facilitating systems change, increasing community voices, and decreasing disproportionate harms. FECM should encourage direct project developers to conduct a social characterization assessment (as outlined in FECM's *Creating a Justice40 Initiative Plan*) at the outset of projects to understand community dynamics, decision-making processes, history of dis/trust between community groups and government, industry, and other sectors, experience with disasters, and other sociocultural, economic, and environmental components. Project developers should be required to openly acknowledge the findings of such assessments and integrate them into project planning and decision-making.

c) *A clear plan tailored to community needs:* Good community engagement will require a plethora of engagement activities throughout the life of the project that are specifically tailored to the needs and characteristics of the community. FECM should encourage project developers to create community-specific engagement plans that consider regional languages, access to transportation, common local work hours, access to the internet, religious service hours, and more.

d) *Community education and technical assistance:* Education is essential for communities to make the best-informed decisions related to carbon management. FECM should work with project developers to provide accessible, unbiased, honest, transparent, and

scientifically sound information and training on the potential opportunities and risks associated with carbon management. Developers should be encouraged to consider partnering with community-identified trusted third parties and community-based organizations to create and deliver educational resources and training to ensure integrity.

e) *Clear mechanisms for project modification:* More often than not, developers use community engagement to convince communities to house a project rather than co-create with communities projects that fulfill their needs and priorities. FECM should encourage project developers to initiate community engagement processes before they finalize project design, as well as provide clear mechanisms for modification of project components in response to community desires.

Workforce development and quality jobs

Carbon management projects should provide high-quality jobs and workforce development opportunities in the communities that host them. FECM should strengthen its *workforce development and quality jobs* principle to require that project developers provide jobs with prevailing, family-sustaining, and living wages for all workers, a robust range of benefits (e.g., retirement, healthcare, and paid vacation, sick time, and family leave), and a safe work environment with protections that are at least on par with California — a state with some of the strongest worker protections in the country — regardless of immigration status. FECM should encourage project developers to commit to entering into local hire agreements with ambitious targets.

In addition to providing assurances that workers will have a free and fair chance to join or form a union, FECM should encourage project developers to also commit to working with local labor groups and workforces to establish unionization options and union training partnerships for workers, if such options do not already exist.

Environmental justice

As mentioned above, beyond acknowledging environmental justice principles, FECM should encourage project developers to actively promote procedural, distributive, and reparative justice through project processes and outcomes. These justice types underpin the environmental justice movement, and when advanced together, can move us toward transformative justice — a liberating transformation of society's systems and structures. Many of these justice types are embedded in other principles, such as community engagement (i.e., procedural justice) and quality jobs (i.e., distributive justice), demonstrating that environmental justice must be

incorporated across all components of a carbon management project in order to ensure good, responsible, and beneficial projects.

FECM should encourage project developers to pursue truly well-informed, free, and prior consent from communities before initiating a carbon management project. Project developers should also be required to provide proof of how the design and development of carbon management projects are based on the unique lived experiences and the cumulative social, cultural, economic, environmental, and climate impacts experienced by environmental justice stakeholders — including disadvantaged and low-income communities and communities of color. Furthermore, FECM should encourage project developers to prove meaningful representation and inclusion of environmental justice stakeholders in all project decisions, as well as prove that these stakeholders have equitable access to project benefits and are not subject to disproportionate adverse project impacts.

Environmental responsibility

First, beyond complying with existing environmental regulations and publishing environmental impact assessments, FECM should strengthen its *environmental responsibility* principle to encourage project developers to be clear and transparent about any known and unknown potential harms. Second, robust MRV is critical for tracking the climate benefits of a project, ensuring delivery of these benefits as promised, and enabling oversight of the project's environmental important pacts (both positive and negative) over time. MRV protocols should utilize best available measurement, modeling, and monitoring standards to quantify net carbon removal, any associated uncertainties in carbon fluxes and storage, and any project-relevant environmental impacts. Standards should be co-developed through an iterative public consultation process to ensure integrity. Protocols should be validated by community-vetted entities and against the standard by an independent technical expert. Data collected using the protocol should be verified by an independent third party and made accessible to the community. Third, technical documents, including Environmental Impact Assessments (EIAs), MRV plans, and project data, are often not easily accessible. FECM should direct project developers to work with communities to find best practices for data sharing.

Air and water quality

Monitoring and reporting should also include criteria and hazardous air pollutants. For projects sited in or near coastal areas, such as for ocean carbon removal or sub-seabed storage, FECM should improve its *air and water quality* principle by encouraging project developers to thoroughly evaluate and avoid harms to marine and coastal resources. FECM should also

encourage project developers to commit to pausing projects in the case of any significant risks to air and water quality and provide and enforce mitigation measures in the event a project negatively impacts air and water quality.

Regulatory requirements

FECM should enhance its *regulatory requirements* principle to ensure they, alongside project developers, coordinate with other agencies to establish strong monitoring, permitting, and remediation requirements for each project. FECM should also encourage project developers to conduct a comprehensive cumulative risk and impacts assessment and consider other federally funded screening tools that take environmental justice into consideration. FECM should push project developers to rigorously and transparently adhere to all applicable regulatory requirements for protecting human health and the environment and, in good faith, go above and beyond what is required by applying best practices developed by regulatory authorities or other standard-setting bodies. This includes timely public reporting of any regulatory violations.

Emergency response

While many of the processes that occur in and around carbon management projects are well understood and, under current regulatory requirements, expected to be deployed safely, accidents are inevitable. Communities lack necessary information on carbon management technologies and processes, and disadvantaged communities are specifically exhausted of bearing the burden of being "test zones" for new technologies. Further compounding communities' wariness are recent [carbon dioxide pipeline test explosions](#) and the [catastrophic accident in Satartia, Mississippi](#), which the latter made clear that first responders do not currently know how to quickly and properly respond to accidents involving carbon dioxide leaks.

To ensure safety and build community confidence, FECM should enhance its *emergency response* principle to encourage project developers to co-create detailed emergency action plans with community groups, state and federal agencies, and local first responders for any potential project-related incidents spanning capture/removal, transportation, utilization, and storage processes. These plans should include background information on carbon dioxide (e.g., it's an odorless gas) and what exposure in high quantities can cause (e.g., dizziness and asphyxiation), methods to alert local first responders, notification systems that span communities (e.g., phone alerts with multilingual accessibility), and evacuation procedures. FECM should also encourage developers to work with these groups to comprehensively disseminate these plans across community spaces and directly to community residents.

In addition to response, recovery is a vital component of supporting communities after an accident has occurred. FECM should work with project developers and communities to identify potential recovery needs such as direct reimbursements to residents, coverage of short- and long-term medical bills, and compensation for property damages.

Question 4: Once finalized, would you agree to pledge to abide by or endorse the Principles? If not, what changes could be made to Phase 1 to encourage you to pledge to abide by or endorse the Principles?

Recommendation: DOE should meaningfully integrate environmental justice priorities and recommendations from environmental justice advocates, leaders, and organizations.

Carbon180 would consider endorsing the Principles depending on the final integration of equity and justice priorities and recommendations from environmental justice advocates, leaders, and organizations.

Question 5: How could Phase 2 and a recognition program be structured and executed to maximize adoption of the Principles?

Recommendation: DOE should base awards under its Carbon Dioxide Removal (CDR) Purchase Prize on adherence to the final set of Principles for Responsible Carbon Management.

While publication of these Principles represents an important first step in setting standards for verifiable and just carbon removal, it lacks an enforcement and/or incentive mechanism to ensure industry adoption. Fortunately, FECM has "up to $35M from BIL funds to support a prize for CDR purchasing contracts for a portfolio of CDR pathways consistent with the objectives of the Carbon Negative Shot," according to its recent Notice of Intent (NOI). Carbon180 recommends that FECM leverage its mandate to procure carbon removal services to set high industry standards for MRV, community engagement, and all other principles discussed in this response. Doing so would create a meaningful additional incentive for developers to adopt the Principles.

In addition to providing technical assistance to companies as part of Phase 2 efforts, FECM can require procurement applicants to meet these standards in order to receive federal funding. Companies would be notified through a transparent bidding process whether they qualify for federal funding or what adjustments they need to make in order to do so.

FECM can also recommend that any subsequent federal procurement program for carbon removal services or utilization technologies — across all federal agencies — incorporate its Principles in evaluating applications. This would send a powerful signal throughout this nascent market that adopting these Principles is in the best short- and long-term interests of CDR companies.

Question 6. Would the technical assistance envisioned in Phase 2 be helpful to advance responsible carbon management projects? Would you take advantage of this service or encourage others to take advantage? If not, why not?

Recommendation: DOE should strongly encourage project developers to take advantage of the technical assistance offered in Phase 2 to better understand how to integrate equity and justice and develop responsible projects that are beneficial for communities.

Yes, the technical assistance envisioned in Phase 2 would be helpful to advancing responsible carbon management projects.

As FECM identifies for Phase 2 of the Initiative, developers will need technical assistance to better understand equity and justice and how to execute the Principles established in the Initiative. Last year, Carbon180 partnered with the XPrize Foundation to ensure responsible and sustainable carbon removal projects through XPrize Carbon Removal. An EJ questionnaire determined that a majority of carbon removal startups are unfamiliar with environmental justice and thus unsure how to integrate environmental justice principles and priorities into their projects. To this end, Carbon180, XPrize, and a panel of environmental justice experts collaboratively published a report with recommendations for early-stage startups to integrate environmental justice into their carbon removal projects from the outset. We strongly encourage FECM to push project developers to take advantage of the technical assistance in Phase 2 since carbon management professionals are still coming to understand what equity and justice looks like in their field, and for those with a foundational grasp on environmental justice, there is always more learning and work to be done.

Section II: Proposed direct edits for the Principles for Responsible Carbon Management Projects

In addition to our recommendations above, we have included Carbon180's proposed revisions to DOE's Principles below. These reflect our best attempt to provide the office with not only high level feedback, but specific recommendations to translate that feedback into specific Principles language:

Community engagement

Project developers will be considerate of parties who are or may reasonably be affected by project deployment, with particular attention to historically marginalized parties (i.e., communities of color, low-income communities, and Tribal parties) and will share project-related information in a timely, accessible, and transparent way. Project developers will use a mixture of federal- and state-level equity screening tools to identify community stakeholders and rights-holders, understand the burdens they may be experiencing, and support their engagement efforts. Project developers will work to define a community based on the comprehensive range of stakeholder and rights-holder groups within a community (e.g., environmental justice, labor, religious, and environmental and climate groups, Tribes, academia, and local government), and not narrowly define community by unrepresentative groups, such as local chambers of commerce. Project developers will conduct social characterization assessments (as outlined in FECM's *Creating a Justice40 Initiative Plan*) at the outset of a project to understand the sociocultural, economic, and environmental dynamics of a community and integrate findings into engagement plans and decision-making processes. Project developers will include robust two-way community engagement plans, including unbiased, transparent, honest, and evidence-based information-sharing and training on potential carbon management technology risks and opportunities (potentially through partnerships with trusted third parties), so that communities can understand and weigh the potential opportunities and risks of hosting a project — including the social, economic, environmental, and cultural effects. Project developers will pursue a broad range of community engagement activities throughout the life of the project, electing activities based on community-specific needs (e.g., language and internet access, local work hours, etc.) Project developers will provide clear mechanisms for modifying aspects of their projects in response to community expertise, lived experiences, priorities and concerns raised through engagement. Project developers will provide community-determined benefits to communities and workers and enter into co-created legally enforceable community benefits agreements (CBAs) with a comprehensive range of community stakeholder groups to ensure delivery of benefits and accountability to the community.

Workforce development and quality jobs

Project developers will create jobs within host communities and the surrounding region that provide prevailing and family sustaining wages, a range of benefits (e.g., retirement, healthcare, and paid vacation, sick time, and family leave), predictable schedules, a safe work environment with protections at least on par with those of the state of California, and assurances that workers will have a free and fair chance to join or form a union — for all workers regardless of immigration status. Project developers will enter into co-created Project Labor Agreements (PLAs) and/or CBAs with local unions, trade councils, contractors, and community organizations — with targeted outreach to undocumented workforces, including groups that represent them, for inclusion in agreements — to ensure delivery of labor benefits and accountability to labor groups and communities. Project developers will commit to working with local labor groups and workforces to establish unionization options for workers if such options do not already exist. Project developers will foster broad access to these jobs by making investments in training and career awareness through union partnerships that serve workers (e.g., union-affiliated training programs, registered apprenticeship and pre-apprenticeship programs, schools, and universities), as well as by integrating local hire commitments with ambitious targets into PLAs. Project developers will also prioritize providing long-term employment for workers when possible and support the mobility of workers to advance in their careers through training and retraining programs.

Building new carbon management infrastructure with a skilled, well-trained, union workforce can maximize economic and job-quality benefits and ensure the timely and efficient buildout of projects. Strong, well-defined labor-management relationships increase a project's chance of success by reducing labor disputes and helping secure a qualified workforce and uninterrupted operations.

Many workers in the construction, operations, and maintenance sectors already possess the necessary skill sets for carbon management technology deployment, and the carbon management industry can support and create jobs that utilize similar skill sets to those possessed by incumbent energy workers, providing a natural opportunity to support existing skilled trades as well as employ displaced fossil fuel workers in the clean economy. Project developers should seek out these skilled workforces in their hiring where possible.

Project developers can achieve the goals laid out above by committing to not interfere with workers' rights to organize and collectively bargain, using PLAs, CBAs, and Collective

Bargaining Agreements, and providing workers the various indicators of high job-quality laid out above.

Tribal consultation

Project developers will respect Tribal sovereignty and self-determination, lands, assets, resources, treaty, and other federally recognized and reserved rights, considering sacred tribal lands and other areas and resources of religious or cultural significance. Project developers will consult Tribes in a manner that recognizes tribal sovereignty and places the needs of the community first.

Environmental justice

Through all phases of carbon management deployment — including siting, design, operation, and decommissioning — project developers will pursue fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income. Project developers will embrace environmental justice principles — promoting procedural, distributive, and reparative justice through project processes and outcomes — and comply with Federal requirements and guidance on these issues. In particular, project developers will pursue truly well-informed and prior consent from communities before initiating a carbon management project, as well as meaningfully consider and incorporate the cumulative social, economic, environmental, and climate impacts experienced by communities, particularly disadvantaged communities, when designing and deploying carbon management projects. Project developers will ensure representative inclusion of environmental justice stakeholders in all project decisions and incorporate the unique priorities of environmental justice communities in project components.

Environmental responsibility

Project developers will thoroughly evaluate and mitigate environmental impacts using best practices with respect to planning, implementation, monitoring, and closure. Project developers should disclose known and unknown potential environmental impacts. Project plans should be publicly available and peer reviewed for scientific validity. Project developers will publish environmental impact analyses, MRV methodology, and project monitoring data in a way that is timely, verifiable, and easy for the public to access, to be determined through robust community engagement processes. Environmental analysis will include energy use and cradle-to-grave environmental impacts, including greenhouse gases (GHGs), to ensure that projects meet their intended emissions reduction goals and minimize ecosystem impacts. Project developers will

collaborate with community organizations to enable mechanisms and opportunities for participatory community monitoring and science.

Air and water quality

Project developers will implement operational practices or equipment to monitor and mitigate potential non-greenhouse gas air and water pollutants. Monitoring and reporting will be inclusive of N-amines and changes in co-pollutants, including criteria and hazardous air pollutants. Protocols should explicitly address potentially hazardous pollutants which are not explicitly regulated yet (e.g., crystalline silica from enhanced rock weathering or mineralization) and ensure Occupational Safety and Health Administration standards for Particles Not Otherwise Regulated and Environmental Protection Agency general standards for particulate matter are observed. Developers for projects that may impact water resources, such as carbon dioxide storage projects, will thoroughly evaluate risks and avoid impacts to groundwater, other subsurface resources, and coastal and marine resources. Project developers will commit to pausing projects in the case of any significant risks to air and water quality. Project developers will provide and enforce mitigation measures in the event a project negatively impacts air and water quality. Projects with a high risk of air pollution or a history of air pollution should not be located in non-attainment areas.

Regulatory requirements

Project developers will rigorously and transparently adhere to all applicable regulatory requirements for protecting human health and the environment, and apply best practices which should include, but are not limited to, conducting comprehensive cumulative impact assessments, performing timely public reporting of any regulatory violations, and providing full transparency on the status and development of carbon management projects.

Health and safety

Project developers will site, design, construct, and operate their projects in a safe and secure manner that is protective of human health, including worker and public health and safety. Project developers will commit to pausing projects in the case of any significant risks to public health. Project developers will provide mitigation measures in the event a project negatively impacts air and water quality.

Emergency response and recovery

Project developers will co-develop with communities emergency response and remediation plans that are publicly available and accessible based on community needs (e.g., regional languages and offline and online formats) and include, timely and far-reaching emergency alert notification provisions, background information on carbon dioxide (e.g., it's an odorless gas) and what exposure in high quantities can cause, evacuation procedures, methods to alert first responders, and training and resources to local emergency responders. Project developers will work with community groups to comprehensively disseminate plans across community spaces and directly to community residents. Project developers will also work with communities to identify potential recovery needs (e.g., direct reimbursements to residents, coverage of short- and long-term medical bills, and compensation for property damages) and plans.

Transparency

Project developers will implement robust mechanisms for transparency — before, during, and after the project ceases. In particular, project developers will ensure that the siting process is based on public input, pursuing consent-based siting, and transparent with respect to how decisions are made. Project developers will work with communities to identify the types of data that will be collected and shared with the public, including the level of detail, frequency of monitoring and reporting, response to findings, and means of disseminating information. Project developers will be transparent and honest about the potential risks and benefits of and gaps in data associated with a project. Project developers will promote transparency by making publicly available any Community Benefit Plans, CBAs, or similar project plans.

Long-term stewardship

Project developers of carbon dioxide storage projects will develop closure and post-operational monitoring and reporting plans and ensure financial responsibility and liability for any future stewardship.

Accountability

Project developers will co-design with host communities a robust set of mechanisms to ensure accountability across project dimensions, including climate, environmental, public health, social, and economic impacts. Project developers will enter into legally enforceable community and labor agreements (e.g., CBAs and PLAs) with a comprehensive range of community stakeholders and rights-holders (e.g., environmental justice, labor, religious, environmental, and

climate groups, Tribes, academia, and local government) with clear metrics for measuring success of delivery of benefits over time, acceptable mitigation and compensation measures for potential adverse project impacts, and penalties for noncompliance. Project developers will establish a compensated community oversight board for each of their carbon management projects that will provide consistent reports to communities and, potentially, government bodies on project progress and potential violations of accountability mechanisms and/or regulatory requirements. Project developers will implement detailed protocols for measurement, modeling, and monitoring of net carbon removal and any other project-specific environmental and public health impacts. An independent third party will validate the monitoring plan, shared publicly for consultation. An independent third party will also verify data collected, which will be made accessible to the public. Where possible, project developers will collaborate with community organizations to enable mechanisms and opportunities for participatory community monitoring and science.

Community self-determination

Project developers will promote the right and responsibility of communities to choose for themselves the projects they would like to host and collaboratively direct the components and outcomes of the project. Project developers will work with a comprehensive range of community stakeholders and rights-holders (e.g., environmental justice, labor, religious, environmental, and climate groups, Tribes, academia, and local government) to finalize project components, including site location, through consent-based processes. Project developers will incorporate at least one decision point in the project timeline where communities can vote to veto or end the project, through consensus.