COMMENTS OF THE CENTER FOR CLIMATE AND ENERGY SOLUTIONS

Comments of the Center for Climate and Energy Solutions on the U.S. Department of Energy's Carbon Management Strategy Draft for Public Comment

This document constitutes the comments of the Center for Climate and Energy Solutions (C2ES) regarding the Carbon Management Strategy Draft for Public Comment, issued by the U.S. Department of Energy (DOE) Office of Fossil Energy and Carbon Management (FECM) on October 10, 2024.

I. Overview of C2ES

C2ES is an independent, nonprofit, nonpartisan organization working to secure a safe and stable climate by accelerating the global transition to net-zero greenhouse gas emissions and a thriving, just, and resilient economy. To help meet this challenge, C2ES has stood up four technology working groups focused on the critical path technologies of engineered carbon removal (ECR), sustainable aviation fuel, long-duration energy storage, and clean hydrogen. Among the four technology working groups, the ECR technology working group is the one of relevance to this specific public comment.

The ECR technology working group convenes leading companies across the technology ecosystem, including direct air capture companies, biomass with carbon removal and storage companies, corporate buyers, financiers, supporting infrastructure developers, technology providers, and other key stakeholders. Over the past year, the ECR technology working group met regularly to build a shared knowledge base of the key market dynamics impacting the ECR industry and to align on a set of policy priorities for enabling market growth. Informed by working group discussions, as well as members of C2ES's Business Environmental Leadership Council (BELC), C2ES produced a brief detailing a shortlist of high-impact federal policy recommendations.

II. Broad Support from C2ES regarding the DOE's Carbon Management Strategy

C2ES applauds the DOE for its leadership in developing a comprehensive carbon management strategy aimed at achieving net-zero greenhouse gas emissions in the power sector by 2035 and economy-wide by 2050. We support the use of carbon management broadly—as a critical climate mitigation tool alongside emissions reductions. For the purposes of this public comment, however, we will focus specifically on carbon dioxide removal (CDR), as it aligns closely with the focus of our ECR technology working group.

We further commend the DOE for recognizing CDR as one of four priority use cases for carbon management. As highlighted in the strategy, CDR is essential not only to address residual emissions but also to remove legacy emissions already present in the atmosphere. This dual role underscores the importance of advancing CDR approaches—particularly those with high capacities for monitoring, reporting, and verification and storage solutions on timescales greater than a century – as part of an integrated approach to climate action.

III. Overview of C2ES's ECR Federal Policy Recommendations

The DOE will play a critical role in scaling CDR. We recognize that the DOE's strategy sets an ambitious near-term target of achieving 25–30 million metric tons per year of technological carbon removal by 2030 (as shown in Figure 7 of the draft strategy)—a goal that will require significant Congressional support to realize. In light of this, we are sharing our federal policy recommendations, many of which fall under the purview of Congress, for consideration as part of the DOE's strategy. It is essential for the DOE to be informed on the policies that civil society is advocating for, as these policies have the potential to directly impact the DOE's efforts and priorities in scaling carbon removal solutions.

These recommendations—outlined below and described in detail in the brief—fall into three broad categories: early project financing, derisking investment, and creating near- and long-term market certainty.

1. **Congress should increase the DOE program direction budget to fund staffing in FECM and the Office of Clean Energy Demonstrations (OCED).** The timely awarding and disbursement of funds appropriated for the development and scaling of ECR technologies is particularly important for early-stage companies that depend on awarded federal funding to launch or sustain their research, development, or operations. This can only be accomplished if the departments responsible for such disbursement are adequately staffed with the experts needed to negotiate awards, assess technologies, and aid with implementation challenges.

2. **Congress should modify the section 45Q tax credit for carbon dioxide sequestration, specifically by making the inflation adjustment of the tax credit effective in 2024 (rather than in 2027, as in the statute), with 2022 as the base year.** Inflation has already eroded the real value of the 45Q tax credit since it was increased by Congress in 2022. Adjusting the tax credit for inflation starting in 2024 will ensure that it can effectively deliver support for the nascent ECR industry for the credit period that Congress intended.

3. **Congress should establish a long-term monitoring, reporting, and verification (MRV) trust for all Class VI wells—used for the subsurface injection and permanent sequestration of carbon dioxide—to ensure responsible stewardship.** Similar to the Leaking Underground Storage Tank (LUST) trust fund, the MRV trust would be funded through a small fee per metric ton of sequestered carbon dioxide, paid for by Class VI well operators. The fund would finance the administration and regulatory oversight of active projects by the EPA (or equivalent state authority for states granted primacy over Class VI wells) and finance the long-term (i.e. century-scale) stewardship of stored carbon projects.

4. **The U.S. federal government should establish a long-term federal carbon dioxide procurement policy, with a time horizon of at least ten years, to support the development and scale up of novel carbon removal technologies.** The policy should take a portfolio approach across a set of CDR categories, comparable to those laid out in the CDR Purchase Pilot Prize. Within each category, offtake contracts would be awarded via reverse auction, where CDR sellers bid for government contracts by offering the lowest price. Each CDR category would include a maximum price per net metric ton of carbon dioxide to incentivize least-cost innovations, and would adhere to the federal "Voluntary Carbon Markets Joint Policy Statement and Principles."

5. **The administration and Congress should examine options and work toward enacting an economy-wide market-based carbon reduction program, with provisions to credit verified carbon dioxide removals, that could contribute to the achievement of net-zero emissions by 2050.** Setting a price on carbon—whether through a carbon tax or a cap-and-invest program—confers a clear market value to emissions reductions and emissions removals (including through ECR) that is commensurate with the environmental, societal, and economic benefits that reducing global greenhouse gas pollution provides. The revenue generated from a carbon price could be used to pay for lowering government deficits, reducing distortionary taxes, or for additional carbon management programs.

C2ES is broadly supportive of the DOE's carbon management strategy. Through our extensive engagement with the private sector, we understand there is significant private capital interested in supporting the CDR industry and more broadly carbon management. The outlined strategy, with additional support from Congress, will provide an important signal to the private sector that these investments are worthwhile and can deliver meaningful climate mitigation. We stand ready to work with the DOE and Congress to advance these important technologies.