

Center for Law, Energy, & the Environment

University of California, Berkeley School of Law 1995 University Ave, Suite 460 Berkeley CA 94704 Tel 510.542.7235 clee.berkeley.edu law.berkeley.edu

September 29, 2023

Office of Fossil Energy and Carbon Management
U.S. Department of Energy
Forrestal Building
1000 Independence Avenue, SW
Washington, DC 20585

Re: Notice of Intent and Request for Information Regarding Launching a Responsible Carbon

Management Initiative

Document ID: DOE-HQ-2023-0054-0001

Thank you for the opportunity to comment on the Department of Energy's Responsible Carbon Management Initiative. On behalf of the UC Berkeley Center for Law, Energy, & the Environment (<u>CLEE</u>), we support the Initiative and have one major suggestion: that DOE explicitly include methane, the second most important greenhouse gas, in the design of the Initiative.

The Center for Law, Energy & the Environment focuses on moving climate solutions more quickly to policy and scale. We work with stakeholders from federal and state agencies, local governments, industry, environmental nonprofits, and scientific institutions. One of our key areas of engagement is methane emissions reduction. We propose that adding methane to the RCMI would make the Initiative more robust and effective, and holds high potential to advance national methane efforts.

In joint response to questions (1), (2) and (3):

- 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?
- 2. At a high level, do the Principles address what is needed for responsible carbon management? If not, what additional principles may be needed?
- 3. In what ways, if any, could the Principles be revised to better reflect responsible carbon management?

First, as it stands, the Initiative includes no clear definition of 'carbon management,' and related actions and technologies, even as examples are provided. A **clear definition of 'carbon management,' and including methane and its sources into the concept** would encourage methane management, provide greater transparency, and help identify potential opportunities to cut emissions in multiple forms. As a sectoral example, oil and gas operations are major emitters of *both* methane and CO₂, and an integrated 'carbon management' initiative will encourage development of comprehensive strategies to manage both pollutants.

Second, as methane is a key planet-heating hydrocarbon, accounting for 30 percent of anthropogenic warming, we strongly urge the inclusion of methane when designing the Initiative, and of methane management under the Principles for Responsible Carbon Management Projects. Methane is 80 times more powerful than carbon dioxide over a 20-year period. It is a colorless, odorless, flammable gas that comes predominantly from agriculture (livestock and rice cultivation), energy production from fossil fuels (oil, gas, and coal), and the waste sector (landfills and wastewater). But unlike carbon dioxide, methane decays quickly in the atmosphere. This means that reducing methane emissions today can dramatically slow the pace of climate change. The Intergovernmental Panel on Climate Change (IPCC) Sixth Assessment Report (AR6) confirms that "strong, rapid, and sustained methane reductions" are key to limiting warming in the near- and longer-term.

Methane is often referred to as the "low-hanging fruit" for climate policy, as many solutions for mitigating methane are widely available at low or no cost. For example, the agriculture and waste sectors have been pioneering gas capture and use strategies for decades, and there could be significant beneficial technology- and information-sharing in an integrated RCMI. Additionally, methane management has potential to be financially profitable if the fugitive emissions are captured and utilized. Biomethane, for example, is the purified form of raw biogas and can be used as a natural gas substitute. This also aids the circular economy principles, promoted by the U.S. EPA, as a waste item (fugitive methane emissions, in this case) gets reused in the economy.

Moreover, methane mitigation often yields a variety of **co-benefits to human health and air quality**. For example, mitigating methane from orphan oil & gas wells has shown simultaneous suppression of <u>benzene</u> and <u>VOCs</u>.

The RCMI focuses on community engagement, tribal consultation, environmental justice, and economic development, all of which will be better served by a **combined approach**

across management strategies for different GHGs, rather than different approaches for different gasses.

Finally, inclusion of methane in the RCMI has potential to support methane action and commitments by the federal government. It can support the work of the newly instituted Methane Task Force, strengthen the U.S. Methane Emissions Reduction Action Plan, and further accelerate the country's commitment to the Global Methane Pledge. It will also support action leadership by the U.S.A., and aid in raising global ambition to mitigate methane emissions.

In conclusion, we ardently propose adding methane management to the RCMI, as it would make the Initiative more robust and effective while advancing overall national greenhouse gas abatement and mitigation efforts.

In response to question (5): How could Phase 2 and a recognition program be structured and executed to maximize adoption of the Principles?

We suggest that the Initiative support carbon markets in the U.S.A. that structurally integrate methane by expanding and finessing the protocols for the carbon trading system to accommodate actions that result in measurable, accountable carbon (methane) savings. For example, plugging an orphan oil or gas well and its successful remediation could yield carbon credits from the mitigated emissions.

We appreciate the opportunity to comment on the proposed Responsible Carbon Management Initiative. Given the urgency of methane mitigation and the cost-effectiveness of solutions, any carbon management policy and initiative would be remiss if they fail to address methane. We, as below, are open to further discussion, consultation and information.

Sincerely,
Ken Alex
Director, Climate Program, CLEE
ken.alex@berkeley.edu

Shivani Shukla
Research Fellow, Climate Program, CLEE
shivani.shukla@berkelev.edu

Gil Damon

Research Fellow, Climate Program, CLEE
gil.damon@berkelev.edu