December 3, 2022

To: Hon. Doug O'Donnell, Acting Commissioner
Internal Revenue Service
Department of the Treasury

Re: Response of Carbon GeoCapture Corp. to Request for Comment Notice 2022-57

Submitted via: www.regualtions.gov

Dear Acting Commissioner:

Carbon GeoCapture ("CGC") is pleased to submit this comment in response to Notice 2022-57. Headquartered in Laramie, Wyoming, CGC is dedicated to halting global warming by capturing and permanently sequestering anthropogenic carbon dioxide. Our mission is to reduce carbon emissions at scale to help meet mid-century climate goals, foster sustainable domestic energy and industrial production, and enable the preservation and creation of high-wage jobs through the application of our unique carbon sequestration technology. To do this, we are improving and adapting a method to expand the carbon sink capacity of coal seams.

Our technology sequesters carbon dioxide in unminable coal seams through a safe and efficient process. When we inject captured carbon dioxide into coal seams, there may be natural gas present in the rock formations. As CO_2 is injected, it may displace the natural gas from the coal. When the natural gas is displaced, we have the capability to control it and keep it in the coal; to produce and sell it; or to produce it, burn it on-site to produce electricity that subsidizes the carbon sequestration process, recapture the resulting CO_2 emissions, and then sequester them at the same site. This process can result in a closed-loop system with zero net natural gas production.

CGC asks the IRS for clarification in the final guidance regarding the level of Section 45Q tax credit eligibility each of these scenarios would have. To be specific, those scenarios and our perspective on their level of eligibility are:

1. If the primary purpose of sequestering CO_2 in unminable coal seams is carbon sequestration, *and*
    a. no natural gas is produced as a result, then
    b. all the CO_2 sequestered should be eligible for the full sequestration tax credit under Section 45Q ($17 per metric ton base credit level or $36 per metric ton in the case of direct air capture).

2. If the primary purpose of sequestering CO_2 in unminable coal seams is carbon sequestration, *and*
    a. some natural gas is produced as a byproduct of that carbon sequestration process, and
    b. that natural gas is then sold or used to make a product (such as electricity or a chemical) that is sold, then
    c. the amount of CO_2 sequestered that is less than the carbon equivalent of the amount of natural gas that is produced (on an atomic basis) should be eligible for the reduced sequestration tax credit under Section 45Q ($12 per metric ton base credit level or $26 per metric ton in the case of direct air capture); and

d. the amount of CO_2 sequestered that is more than the carbon equivalent of the amount of natural gas that is produced (on an atomic basis) should be eligible for the full sequestration tax credit under Section 45Q ($17 per metric ton base credit level or $36 per metric ton in the case of direct air capture).

3. If the primary purpose of sequestering CO_2 in unminable coal seams is carbon sequestration, *and*
   - **a.** some natural gas is produced as a byproduct of that carbon sequestration, and
   - **b.** that natural gas is subsequently utilized on-site in a closed-loop power generation system with no net additional CO_2e emissions produced, and
   - **c.** the resulting power is used to drive the carbon sequestration process, then
   - **d.** the CO_2 sequestered should be eligible for the full sequestration tax credit under Section 45Q ($17 per metric ton base credit level or $36 per metric ton in the case of direct air capture).
   - **e.** 26 U.S. Code § 45Q(b)(1)(A)(i)(II) sets the applicable dollar amount at $12 per metric ton of carbon dioxide that is "used by the taxpayer as a tertiary injectant in a qualified enhanced oil or natural gas recovery project and disposed of by the taxpayer in secure geological storage."[1] 26 U.S. Code § 43(c)(2)(A)(i) defines "qualified enhanced oil recovery project" as any project "which involves the application (in accordance with sound engineering principles) of 1 or more tertiary recovery methods (as defined in section 193(b)(3)) which can reasonably be expected to result in more than an insignificant increase in the amount of crude oil which will ultimately be recovered." In the case of a closed-loop system, there will be no increase in the amount of natural gas which will ultimately be recovered. Therefore, CGC's sequestration methodology should qualify for the higher level of Section 45Q tax credits in this scenario. We respectfully request that the IRS clarify this issue in its final guidance.

4. If the primary purpose of sequestering CO_2 in unminable coal seams is to produce and sell natural gas, then the CO_2 sequestered should be considered a qualified enhanced natural gas recovery project and therefore eligible for the reduced sequestration tax credit under Section 45Q ($12 per metric ton base credit level or $26 per metric ton in the case of direct air capture).

CGC also respectfully asks the IRS for clarification in the final guidance regarding the definition of "unminable coal seams." We believe that coal seams are unminable if they can be demonstrated to be technically unminable, economically unminable, or legally restricted from being mined for at least 50 years.

[1] 26 U.S. Code § 45Q(a)(2)(B)(i)