



Concerned Carbon
Citizens Consortium
August 3, 2020

CC:PA:LPD:PR (REG-112339-19)
Room 5203
Internal Revenue Service
P.O. Box 7604
Ben Franklin Station
Washington, DC 20044.

Dear Sir or Madam,

This letter comments on the proposed regulations under section 45Q regarding Credit for Carbon Oxide Sequestration, REG-112339-19, 85 Fed. Reg. 34050 (June 2, 2020).

1. Limited Exceptions to Recapture

Section 45Q(f)(4) authorizes Treasury Regulations to provide for recapturing the benefit of any carbon capture credit with respect to any qualified carbon oxide which ceases to be captured, disposed of, or used as a tertiary injectant in a manner consistent with the requirements of section 45Q.

Prop. Treas. Reg. 145Q-5(i) provides “limited exceptions” to recapture for actions not related to the selection, operation, or maintenance of the storage facility, such as volcanic activity or terrorist attack.

Many other federal tax credits have recapture periods, which are typically not waived for actions unrelated to the activities that gave rise to the credits. For instance, the low income housing tax credit’s recapture period is not waived for actions unrelated to the selection, operation, or maintenance of the low income housing, such as volcanic activity or terrorist attack on the low income housing. The work opportunity tax credit is reduced if the employee does not work for a minimum number of hours,¹ but the hours requirement is not waived if the employee’s employment happens to be terminated due to volcanic activity, a terrorist attack on the employer, or any other reason.

The final regulations should eliminate the limited exceptions rule. The storage facility operators may choose to avoid sites located near volcanoes or fault lines, contractually allocate

¹ Section 51(i)(3)(A).

risk of loss with the other parties in the carbon capture transaction, purchase insurance to cover potential damages, or do all of the above. The availability of third party recapture insurance is noted in the preamble to the proposed regulations at 85 Fed. Reg. 34057 and in Rev. Proc. 2020-12 section 4.08. Taxpayers and their consultants have already established many innovative insurance solutions for carbon capture.² The taxpayers who are claiming the credits should take some risk that they will suffer damages in the event of a volcanic activity, terrorist attack, or similar actions, and the damages include both the facility's economic damage and the loss of the facility's credits.

The risk of leaks should be handled by a market-based approach that discourages carbon capture facilities placed near volcanoes or made attractive to terrorist attacks, and should not be shared with the general public and the environment who end up with the leaked carbon oxides regardless of the reason for the leak.

2. Recapture Period

Prop. Treas. Reg. 1.45Q-5(f) provides that recapture of the carbon tax credit ends five years after the last year in which the taxpayer claimed the credit, or even earlier if monitoring ends in some circumstances.

For example, a taxpayer can capture and sequester a million metric tons of carbon oxides in 2026, obtain \$50 million of tax credits, have it all leak out in 2032, and keep all \$50 million of tax credits.³ The federal government effectively paid for around five years of temporary carbon capture, which may not be the most cost effective use of federal subsidies.

The proposed five year recapture period appears to be based on the section 50 recapture period for other tax credits, which have significantly different considerations and consequences. The five year section 50 recapture period applies to wind and solar energy tax credits in section 48. The difference is that the wind and solar energy property produce environmentally friendly electricity during that five year period, which permanently reduces the consumption of fossil fuels and the environmental emission of carbon dioxide during that five year period. There is no reversal at the end of the five years where the wind-saved or solar-saved carbon dioxide is emitted to the atmosphere and completely reverses the carbon dioxide savings that occurred during the wind or solar energy property's recapture period. In other words, wind and solar energy tax credits provide permanent emissions savings and permanent environmental benefits, rather than a temporary timing difference in terms of carbon dioxide emissions over a period of seven or more years.

² See, e.g., Nixon Peabody, *Innovative Insurance Solutions for 45Q Carbon Capture Projects*, July 21, 2020 webinar.

³ See, e.g., Skadden, *Guidance on Carbon Capture and Sequestration Tax Credit Provides Clarity for Developers and Investors*, at 4 (June 8, 2020) ("if a taxpayer claims Section 45Q Credits with respect to 1 million metric tons of qualified carbon oxide disposed in each of years 1 through 6, and in year 7 all 6 million metric tons leak into the atmosphere (and no qualified carbon oxide is disposed), under the proposed regulations only Section 45Q Credits claimed by the taxpayer in years 2 through 6 are subject to recapture.")

In addition, other recapture periods are generally based on a minimum amount of time that the taxpayer has to remain invested in the credit project, whereas the underlying project may have to be compliant with the credit requirements for far longer. For instance, the low income housing tax credit has a 15 year recapture period for the taxpayer's ownership,⁴ but the low income housing must generally remain compliant with the credit requirements for a total of 30 years,⁵ or even longer in most cases due to contractual requirements. The 30 year period is, not entirely coincidentally, equal to the 30 year class life of the low income housing and other residential rental property under the alternative depreciation system.⁶ Similarly, the section 47 historic rehabilitation credit has a five year recapture period to prevent the taxpayer from disposing of its interest in the project,⁷ but the actual rehabilitated real property will typically remain rehabilitated for much longer than five years.

The useful life for sequestered carbon oxides is typical longer than five years. It should be noted that historically unsubsidized methods of carbon capture and sequestration, using natural photosynthesis, have longer recapture periods. The petroleum hydrocarbons that are being recaptured today were generally carbon captured and sequestered during the Jurassic and Cretaceous periods (200 million to 65 million years ago), while much of the nation's coal resources were carbon captured and sequestered during the Carboniferous period (360 million to 300 million years ago).

A reasonable compromise between five years and the longer useful life of carbon capture would be a recapture period of 99 years. The 99 year period is more practical and commercially feasible compared to more geological time scales, based on the precedents of other commercial transactions that occur over a span of 99 years, such as ground leases of land.⁸ The sequestration of carbon until the early 2100s, instead of five years, also furthers the policy intent of section 45Q to have some real and measurable effect on global warming and global climate change.

Scientific organizations and news reports generally measure the effects of global climate change on a century basis, not five years. *See, e.g.*, Intergovernmental Panel on Climate Change (IPCC), *Special Report on Global Warming of 1.5° C* ("Model-based projections of global mean sea level rise (relative to 1986–2005) suggest an indicative range of 0.26 to 0.77 m by 2100 for 1.5°C of global warming, 0.1 m (0.04–0.16 m) less than for a global warming of 2°C (medium confidence)."); Abraham Lustgarten, *The Great Climate Migration*, *New York Times* (July 23, 2020) ("By 2070, the kind of extremely hot zones, like in the Sahara, that now cover less than 1 percent of the earth's land surface could cover nearly a fifth of the land, potentially placing one of every three people alive outside the climate niche where humans have thrived for thousands of years. Many will dig in, suffering through heat, hunger and political chaos, but others will be forced to move on. A 2017 study in *Science Advances* found that by 2100, temperatures could rise to the point that just going outside for a few hours in some places, including parts of India and Eastern China, 'will result in death even for the fittest of humans.'")

⁴ Section 42(i).

⁵ Section 42(h)(6)(D)(ii)(II).

⁶ Section 168(g)(2)(C)(iii).

⁷ Prop. Treas. Reg. § 1.47-7.

⁸ *See, e.g., Weiss v. Wiener*, 279 U.S. 333 (1929). *See also* Convention between the United Kingdom and China, Respecting an Extension of Hong Kong Territory (1898).

A storage facility operator or other credit-claiming taxpayer may set aside some reserves or purchase insurance to mitigate the risks associated with credit recapture, which can be enforced during the recapture period through contract, successor liability, and the centralized partnership audit rules as enacted by the Bipartisan Budget Act of 2015. In order to not have a cliff effect after the end of 99 years, the recapture amount can be phased out by using a linear interpolation of the recapture percentage between 0% and 100% for each calendar year during the recapture period. After around 50 years, some limited exceptions can be made for the facility to no longer remain in compliance due to extraordinary financial circumstances, by analogy to the low income housing tax credit's limited exceptions that generally allow conversion to market rental rates midway through its 30 year period.⁹

It is possible that some carbon capture syndication promoters and industry-sponsored lobbying and environmental groups may claim that any longer recapture period is commercially and technologically unfeasible at the current subsidy levels. Even if carbon capture technology research were to come to a standstill and cease all progress, the question for Treasury is whether billions of dollars of federal revenues can be put to better use than a short-term storage of some carbon oxides. It is no great injustice for a tax incentive program to remain largely unused if that is the most economically feasible alternative, which is the case for the section 48C credit for manufacturing carbon capture property and was the case for the section 45Q credit itself during the first ten years of its existence between its enactment in the Pub. L. No. 110-343, the Emergency Economic Stabilization Act of 2008, and its enhancement in the Pub. L. No. 113-123, the Bipartisan Budget Act of 2018. The general public and the federal government should consider whether it is worth \$500 million dollars to pay for 10 million tons of carbon oxides to be captured in 2026 and leaked in 2032, for example.

The tax administration of the section 45Q credit has already suffered some adverse publicity that questioned the role of Treasury and the IRS with respect to taxpayer compliance and responsible use of taxpayer dollars. *See, e.g.*, Treasury Inspector General for Tax Administration, *Letter to Senator Robert Menendez* (April 15, 2020) (“We determined that for TYs 2010 through 2019, a total of \$893,935,025 (87 percent) worth of I.R.C. § 45Q credits were claimed by these 10 taxpayers when they were not in compliance with the EPA (i.e., they did not have an approved MRV Plan in place at the time the credit was claimed).”) Any significant leak of captured carbon would be scrutinized by contemporary media outlets, who are not likely to omit any governmental subsidy of the transaction.

⁹ Section 42(h)(6)(E).