

November 4, 2022

Internal Revenue Service
Office of Associate Chief Counsel
Room 5203
P.O. Box 7604
Ben Franklin Station
Washington, DC 20044

Submitted via Regulations.gov

Re: public comments on IRS Notice Nos. 2022-47, 2022-49, and 2022-50 (guidance on enhancement and extension of energy tax credits)

To Whom it May Concern:

On behalf of the Center for Biological Diversity, the Center for International Environmental Law, Food and Water Watch, Healthy Gulf, the Institute for Policy Studies Climate Policy Program, and the Science and Environmental Health Network, we welcome the opportunity to comment on the Internal Revenue Service's (IRS) forthcoming guidance on the enhancement and extension of energy tax credits, including the 45Q production tax credit for carbon capture and storage/sequestration (CCS).

While we appreciate the IRS's proposal to issue guidance on the forthcoming extensions and enhancements of energy tax benefits in the Inflation Reduction Act, we have a number of concerns. First, there is ample documentation about the history of fraud surrounding the 45Q program, yet mechanisms have not been developed to prevent future fraud despite the expansion and extension of the credit, and there are no penalties for bad actors who abuse it. Second, as this administration seeks to effectuate climate policy through the tax code, the IRS must be aware of and take into consideration the numerous environmental justice concerns surrounding carbon capture technology. Below we provide general comments to inform the agency's development of its guidance surrounding the extension and enhancement of the 45Q production tax credit for CCS.

Abuse and Fraud

A 2020 investigation by the Treasury Inspector General for Tax Administration revealed massive fraud involving approximately \$1 billion in tax credits claimed over the last decade for capturing and storing carbon dioxide under the 45Q tax credit.¹ However, this problem only came to light after a request from U.S. Senator Bob Menendez (D-N.J.), a senior member of the

¹ See Press Release, *Menendez Releases Inspector General Investigation Finding Fossil Fuel Companies Improperly Claimed Nearly \$1B in Clean Air Tax Credits* (Apr. 30, 2020) available at <https://www.menendez.senate.gov/newsroom/press/menendez-releases-inspector-general-investigation-finding-fossil-fuel-companies-improperly-claimed-nearly-1b-in-clean-air-tax-credits>.

Senate Finance Committee, not through any internal IRS oversight processes, verification, or checks. The current 45Q program lacks an enforcement mechanism to prevent fraud like this from reoccurring. Although Senator Menendez requested that the agency take enforcement actions against the fossil fuel companies that fraudulently claimed the credit, and take additional steps to prevent future fraud by the industry, the IRS has not done so. Perpetrators of past fraud have faced no additional oversight or repercussions for their bad actions beyond repaying the unlawfully obtained tax credits. In fact, despite Senator Menendez's request, the names of those bad actor corporations have never been released to the public. Still, IRS has not made any substantive changes to the 45Q tax credit program. The current system remains ripe for fraud and corporate gift which will only be exacerbated by the enormous expansion and extension of the 45Q tax credit recently authorized by the Inflation Reduction Act.

To prevent future fraud, the IRS must ensure substantive monitoring, reporting and verification systems exist (discussed below), as well as establish real penalties for abuse of the 45Q program. In its investigative report, the Treasury Inspector General for Tax Administration acknowledged that while the IRS had conducted audits and denied 45Q credits for a portion of the nearly \$1 billion in fraudulent claims, hundreds of millions of improperly claimed taxpayer dollars remain unchallenged by the IRS. The IRS's typical audit process has already proved inadequate for dealing with fraudulent abuse of the 45Q tax credit system. As it stands, the IRS does not have enough staffing capacity to provide effective oversight of this program, especially given the enhancement and extension which will ignite a flurry of new claimants. Thus, to deter future abuse and conserve manpower, the IRS should impose harsher penalties for past fraud, such as enhanced reporting requirements for bad actors, significant fines, and make bad actors ineligible to claim the credit in future years.

Monitoring, Reporting, and Verification

Currently, the IRS relies on self-reporting requirements under EPA regulations at Subparts RR and UU to fulfill its distinct mandatory statutory obligation to verify claimants' storage of carbon in support of the claimed tax credit under 45Q.² However, these EPA requirements were not established with such tax incentives in mind, but rather for verification regarding leakage of stored or injected CO₂ under its Greenhouse Gas Reporting Program.

Under Subpart RR, EPA requires facilities that conduct geologic sequestration by injecting CO₂ for long-term containment in subsurface geologic formations to: report basic information on CO₂ received for injection; develop and implement an EPA-approved site-specific monitoring, reporting, and verification (MRV) plan; and report the amount of CO₂ geologically sequestered and annual monitoring activities.³ Under Subpart UU, all facilities that inject CO₂ underground for purposes besides geologic sequestration, such as for enhanced oil or gas recovery or any other purpose, are required to report basic information on CO₂ received for injection.⁴

² 40 C.F.R. part 98 (*see* subparts RR and UU).

³ *Id.*

⁴ *Id.*

Relying on EPA regulations to satisfy IRS verification requirements raises numerous concerns. First, EPA requires self-reported data about CO₂ storage and injection, but the Treasury Report revealed that 70% of companies claiming 45Q tax credits didn't meet this basic requirement. Self-reporting without verification by the IRS presents an obvious pathway for abuse. Second, there is no intergovernmental coordination between EPA and IRS to facilitate information sharing, such as concerning whether claimants of the IRS credit have actually complied with the EPA self-reporting requirements. The Treasury Inspector General for Tax Administration investigation revealed that for nearly a decade fossil fuel companies improperly claimed nearly \$900 million in 45Q tax credits, with only three out of the ten companies responsible for claiming 99.9 percent of the 45Q credits actually filing monitoring, reporting, and verification plans with the EPA.

Third, EPA's requirements do not separate out claimants of the 45Q tax credit from other companies storing and injecting carbon, meaning there is no comprehensive inventory of the amount of carbon claimed under the tax credit. Without this data, it is impossible to demonstrate the efficacy of this subsidy in reducing overall carbon emissions. Without a national public inventory of claimed sequestration, there is no oversight of the 45Q program as a whole and no way to determine whether the tax credit is successfully achieving carbon emissions reduction goals. Thus, any discrepancies between EPA- and IRS-reported CO₂ storage numbers are unknown to the agencies and the public—a flaw identified years ago by Senator Menendez.⁵ Overall, the disconnect between the agencies, EPA and IRS, regarding verification for the 45Q tax credit is a fatal flaw in the 45Q program that will perpetuate fraud and abuse of the system.

Finally, because the EPA regulations focus on leakage, they do not capture information about the flow of CO₂ through a facility, as often occurs with enhanced oil recovery (EOR) operations—for which the vast majority of the 45Q tax credit is claimed. EPA's existing regulations do not adequately track the *movement* of CO₂ required for EOR operations. Physical tracking of CO₂ is essential for verification under the 45Q tax credit for EOR operations, and EPA requirements are simply inadequate to do so. The vast expansion of the 45Q tax credit by the Inflation Reduction Act is already precipitating the development of a network of CO₂ pipelines with multiple hubs. Many of these pipelines are proposed in coastal wetlands in Texas and Louisiana, among the leakiest areas for pipelines nationally, mostly due to pipeline-damaging coastal storms that are only increasing in their intensity.⁶ Thus, monitoring and verification of CO₂ injection for EOR will require additional tracking from cradle to grave, in addition to the typical verification for carbon storage. However, verification will need to continue beyond the "grave" as 45Q credit eligible storage and injection monitoring must also occur *after* placement in the ground (i.e., no zombies rising from the grave). IRS should also consider the additional verification issues that could arise if stored or injected carbon leaks. Namely, can the agency claw back tax credits already disbursed if leakage occurs? What can the agency do when companies claiming the credit have gone out of business? Further, there are

⁵ See *supra* n.1.

⁶ Healthy Gulf, *Oil and Gas Pipeline Integrity in Texas and Louisiana, 2010-2020* (July 2021) available at https://drive.google.com/file/d/19PFLneoUwbX1jpKDqISRCRo39Ti_ODhH/view.

important questions about liability, ownership and accounting for carbon added to existing CO₂ deposits that the agency needs to grapple with when complying with its statutory verification mandate.

Data retention requirements

The IRS must consider amending its data retention requirements. Under current EPA leakage regulations, claimants of the 45Q tax credit need only retain data concerning their carbon storage or injection operations for 3 years.⁷ However, this hamstringing the agency into a short time period for verifying and monitoring companies' reporting of such a complex program. Additionally, should leakage occur in future years, the IRS could be prevented from obtaining claw backs of issued tax credits by these short data retention requirements. Under the Inflation Reduction Act, 45Q tax credit projects are eligible for 12 years; at the very least, the IRS should require data retention and monitoring by companies for at least that period of time, and likely longer. In fact, project developers that avail themselves of the Department of Energy Loan Program Office's loan guarantees programs are required to pay back loans up to 40 years after the life of the project if contract conditions are not met, with additional 5-year extensions in some instances.⁸ In light of the commonality of the tax credit being used for EOR projects, the IRS could also consider expanding its data retention requirements for that long. Last, IRS should also consider internally aggregating tax records for specific projects (rather than by claimant, since that may change from the production facility to the CO₂ storage facility or to another subsidiary, over the life of the project) to facilitate internal oversight and verification of storage and injection for projects.

Credit stacking

We recommend that the IRS establish a system for evaluating and tracking stacked credits for carbon, such as through California's Low Carbon Fuel Standard. Without such oversight, there is a very real concern that the same CO₂ molecule is being claimed for credits multiple times, further reducing the efficacy of the 45Q tax credit in reducing emissions. Without such oversight, there is a very real danger not just of stacking the credits, but of stacking potential fraud.

State primacy applications

We have significant concerns about the agency's ability to track and verify carbon storage and injection in situations where states have obtained primacy from EPA for permitting Class VI wells for geologic sequestration of CO₂. States are unable to track carbon from cradle to grave, particularly when it moves outside their borders; thus, there will be a significant oversight gap related to verification where EPA does not hold authority for well permitting and has delegated it to a state. IRS must undertake a comprehensive federal analysis to evaluate

⁷ See supra n.2.

⁸ Dep't of Energy Office of Fossil Energy and Carbon Mgmt, *Webinar: Virtual Carbon Management Application Education Workshop* (Apr. 7, 2022).

tracking and verification concerns regarding carbon life cycle, multiple pipeline networks, leakage (especially as related to EOR operations), and coordinate with federal agency partners, including EPA and the Department of Energy. Since the IRS does not physically track carbon at all and lacks the capacity to do so, since EPA requirements are not intended or set up to do so, and since states with primacy also cannot do so, interagency coordination is essential *prior* to issuance of any additional credits.

Environmental justice impacts

The IRS must recognize that expansion and extension of the 45Q tax credit will have impacts far beyond the tax code. The IRS must address climate change, greenhouse gas emissions, toxic co-pollutants, and environmental justice in its forthcoming guidance.

The 45Q production tax credit for CCS diverts resources away from the needed transition to clean, cheaper renewable energy like wind and solar. The overwhelming majority of claimants of the credit do so for EOR operations, undermining the credit's emissions reduction goals when extracted oil is burned, producing more CO₂ in a vicious cycle that generates yet more greenhouse gases and other toxic pollutants. The IRS must consider climate change and environmental justice impacts in its guidance.

CCS rightly faces widespread opposition from frontline communities, scientists, and environmental justice and climate groups. Vocal opponents include the White House Environmental Justice Advisory Council, more than 500 organizations, and the 1,500-group Climate Action Network.⁹ CCS not only entrenches the fossil fuel and biomass/biofuels industries, along with their existing health and safety harms to frontline communities, but also creates new pollution and safety hazards. The Black, Brown and Indigenous communities already suffering disproportionate and deadly dangers from the industries are targeted for CCS development, particularly along the U.S. Gulf Coast, and through wetlands and neighborhoods in Louisiana's petrochemical corridor known as "Cancer Alley," as well as in the northern plains and California's Central Valley.

Further, transporting and storing CO₂ involves a massive network of perilous pipelines connected to underground injection sites, which have been known to leak and rupture. Compressed CO₂ is highly hazardous upon release, forming a cold, dense cloud that sinks to the ground and can sicken and asphyxiate humans and animals.¹⁰ In February 2020, 300 people were

⁹ See White House Env'tl. Justice Advisory Council, *Justice40 Climate and Economic Justice Screening Tool & Executive Order 12898 Revisions: Interim Final Recommendations* (May 13, 2021), https://legacy-assets.eenews.net/open_files/assets/2021/05/17/document_ew_01.pdf; Ctr. for Int'l Env'tl. Law, *Over 500 Organizations Call on Policymakers to Reject Carbon Capture and Storage as a False Solution* (July 19, 2021) <https://www.ciel.org/organizations-demand-policy-makers-reject-carbon-capture-and-storage/>.

¹⁰ See Dan Zegart, "The Gassing Of Satartia: A CO₂ pipeline in Mississippi ruptured last year, sickening dozens of people. What does it forecast for the massive proposed buildout of pipelines

evacuated and 45 people hospitalized when a CO₂ pipeline ruptured in rural Yazoo County, Mississippi.¹¹ Since CO₂ is odorless and colorless, community members were unaware of the harmful leak until it was too late. Dense clouds of CO₂ prevented vehicles from operating, making it hard for people to evacuate and blocking emergency vehicles. Underground CO₂ storage poses even more risks of leakage, contaminating drinking water and triggering earthquakes.¹² And because toxic chemicals like lye and ammonia are often used to “capture” carbon, megatons of these dangerous chemicals must be produced, transported, handled and eventually dumped to operate CCS at scale.¹³ All of this creates massive hazardous chemical risks for workers and nearby communities.

CCS projects have systematically overpromised and underdelivered on carbon capture — unlike renewable solar and wind, which have delivered on emissions reduction promises while costs continue to plummet. The only U.S. fossil-fueled power plant to operate with CCS equipment—NRG’s Petra Nova CCS project in Texas—vastly underperformed and was shut down indefinitely in 2020.¹⁴ Although Petra Nova promised a 90% carbon capture rate, a Stanford study found that the CCS equipment captured the equivalent of only 10-11% of the emissions produced by the facility after factoring in the emissions from the gas turbine used to run the CCS equipment and the upstream emissions.¹⁵ The study concluded that CCS “reduces only a small fraction of carbon emissions, and it usually increases air pollution.”¹⁶ More recently Chevron’s Gorgon plant in Australia, self-described as the “world’s biggest CCS project,” failed to meet its five-year CO₂-capture target of 80%, instead capturing only 30% of its CO₂ emissions despite billions of dollars of investment and tens of millions in subsidies.¹⁷ Thus, CCS projects rely heavily on subsidies—like the 45Q production tax credit—for such projects to be financially viable, effectively making “CO₂ the commodity.”

across the U.S.?” (Aug. 26, 2021), https://www.huffpost.com/entry/gassing-satartia-mississippi-co2-pipeline_n_60ddea9fe4b0ddef8b0ddc8f.

¹¹ *Id.*

¹² Stanford Report, *Carbon capture and storage likely to cause earthquakes, say Stanford researchers* (June 19, 2012), <https://news.stanford.edu/news/2012/june/carbon-capture-earthquakes-061912.html>.

¹³ Physicians for Social Responsibility Los Angeles, *Danger Ahead: The Public Health Disaster That Awaits From Carbon Capture and Sequestration* (Feb. 10, 2022), <https://www.psr-la.org/danger-ahead-the-public-health-disaster-that-awaits-from-carbon-capture-and-sequestration-ccs/>.

¹⁴ *See* CIEL *supra* n. 9.

¹⁵ *Supra* n.12.

¹⁶ *Id.*

¹⁷ The Guardian, *Gas giant Chevron falls further behind on carbon capture targets for Gorgon gasfield* (July 15, 2022) <https://www.theguardian.com/environment/2022/jul/16/gas-giant-chevron-falls-further-behind-on-cbarbon-capture-targets-for-gorgon-gasfield>.

Conclusion

If this administration intends to effectuate climate policy through the tax code, there are extensive revisions and intergovernmental coordination necessary to properly monitor, verify, and enforce against abuse of the 45Q tax credit for CCS. The IRS must acknowledge and take responsibility for the program's lack of transparency, inadequate monitoring, and past fraud because these fundamental flaws will have direct adverse impacts on communities and the climate. We request that the agency undertake a robust public comment process and substantively address the issues raised in these comments in its forthcoming guidance and any future rulemaking. Until and unless the IRS can demonstrate it has established processes and mechanisms to hold bad actors accountable, and to increase capacity and resources to track and verify claims for carbon capture credits, moving forward with the expanded and enhanced 45Q tax credit subsidies provides a blank check to the fossil fuel industry and is a death sentence for the planet and communities. **For these reasons, we recommend the pause the issuance of 45Q tax credits until completion of a life cycle analysis and implementation of a verification system for cradle to grave tracking, with strong enforcement mechanisms.**

Please contact Margaret Coulter, Staff Attorney at the Center for Biological Diversity (mcoulter@biologicaldiversity.org) if you have any questions regarding this request. Thank you for your careful consideration of these comments.

Respectfully submitted,

Center for Biological Diversity
Center for International Environmental Law
Food and Water Watch
Healthy Gulf
Institute for Policy Studies Climate Policy Program
Science and Environmental Health Network