December 15, 2020

David J. Kautter, Assistant Secretary
Office of Tax Policy
Department of the Treasury
1500 Pennsylvania Avenue, NW
Washington, DC 20220

Michael Desmond, Chief Counsel
Office of the Chief Counsel
Internal Revenue Service
1111 Constitution Avenue NW
Washington, DC 20224

Electronically transmitted via E-Mail

RE: Supplemental Comments of Bipartisan Policy Center, Clean Air Task Force, Center for Climate and Energy Solutions, ClearPath, Citizens for Responsible Energy Solutions, and Third Way on Credit for Carbon Sequestration, IRS Docket No. REG-112339-19.

Dear Assistant Secretary Kautter and Chief Counsel Desmond:

The undersigned nonprofit organizations engaged on environmental and clean energy policy submit the following supplemental comments regarding the proper and permissible methods for determining the amount of available credits for utilization of carbon oxides under section 45Q. While we agree all greenhouse gases need to be reduced to address climate change, we write to express our strong disagreement with suggestions by other commenters that the utilization of greenhouse gases other than carbon oxides might qualify for the section 45Q(f)(5) credit for the utilization of qualified carbon oxide.[1,2]

The Bipartisan Budget Act of 2018 expanded sequestration options for carbon oxides under section 45Q(f)(5)(B) to include utilization of qualified carbon oxides "based upon an analysis of lifecycle greenhouse gas emissions." That section provides that the amount of qualified carbon oxide utilized is "equal to the metric tons of qualified carbon oxide which the taxpayer demonstrates … were (I) captured and permanently isolated from the atmosphere, or (II) displaced from being emitted into the atmosphere." While a lifecycle greenhouse gas analysis includes an analysis of greenhouse gases other than

[1] *See* Comments of Biomass Power Association, 85 Fed. Reg. 34050 (June 2, 2020) & Correction, 85 Fed. Reg. 39113 (June 30, 2020), IRS Docket No. REG-112339-19, Comment ID IRS-2020-0013-0039, (submitted Aug. 2, 2020), *available at* https://www.regulations.gov/document?D=IRS-2020-0013-0039.
[2] Comments of 45Q Full Reg Project and Keith Tracy, 85 Fed. Reg. 34050 (June 2, 2020) & Correction, 85 Fed. Reg. 39113 (June 30, 2020), IRS Docket No. REG-112339-19, Comment ID IRS-2020-0013-0017, at 69, *available at* https://www.regulations.gov/document?D=IRS-2020-0013-0017.

carbon oxides, the permissible amount of the credit remains limited by the statutory language. Providing credits for the utilization of non-carbon oxide greenhouse gases, as suggested by comments from the Biomass Power Association (BPA),[3] would be contrary to the text and purpose of this provision.

Allowing credits for non-carbon oxide greenhouse gases would also have unintended consequences. As highlighted by the Internal Revenue Service (IRS) and other commenters,[4] there is little federal precedent for quantifying or issuing credits based on lifecycle greenhouse gas emissions, and lifecycle analyses have inherent limitations. Specifically, a lifecycle analysis, by its nature, must be based on assumptions around upstream inputs, product durability, and end-of-life considerations—as well as the product being displaced by the utilization process. Crediting non-carbon oxide pollutants multiplies these uncertainties. Providing utilization credits on a CO_2 equivalent basis for methane or sulfur hexafluoride, for example, would result in a per-ton credit valued at 24 and 22,800 times the rate for CO_2. While it is of course essential to reduce all greenhouse gas emissions, the 45Q tax credit is focused on the acceleration of CO_2 capture projects. Allowing credits for non-carbon oxides would undermine that basic purpose of this provision.

Additionally, allowing credit claims that exceed the volumes of carbon oxides that were captured and utilized would violate the intent of 45Q. One example provided in comments by 45Q Full Reg Project and Keith Tracy incorrectly computes the available credits for utilization of qualified carbon oxide.[5] In that example, a utilization facility receives 56,000 metric tons (MT) of qualified carbon oxide captured from a qualified facility. The approved LCA for the utilization process shows it permanently prevents all 56,000 MT of carbon oxides from entering the atmosphere and an additional 4,480 MT from being emitted into the atmosphere from the utilization process. The example concludes that the taxpayer that captured the 56,000 MT would receive 45Q tax credits for 60,480 tons. However, this conclusion is not supported by the statutory language in 45Q(f)(5)(B)(i).

As recommended in our original comments submitted in response to the proposal issued by the IRS in June 2020,[6] the statutory language and policy considerations support the calculation of utilization credits based on the lesser of (1) directly utilized qualified carbon oxide, or (2) the amount of carbon oxide determined to be captured and

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[3] Comments of Biomass Power Association, 85 Fed. Reg. 34050 (June 2, 2020) & Correction, 85 Fed. Reg. 39113 (June 30, 2020), IRS Docket No. REG-112339-19, Comment ID IRS-2020-0013-0039, (submitted Aug. 2, 2020), *available at* https://www.regulations.gov/document?D=IRS-2020-0013-0039.

[4] [CITE commenters]

[5] Comments of 45Q Full Reg Project and Keith Tracy, Comment ID IRS-2020-0013-0017, at 69, *available at* https://www.regulations.gov/document?D=IRS-2020-0013-0017.

[6] Comments of Bipartisan Policy Center, Center for Climate and Energy Solutions, Citizens for Responsible Energy Solutions, Clean Air Task Force, ClearPath and Third Way, "Credit for Carbon Sequestration," 85 Fed. Reg. 34050 (June 2, 2020), and Correction, 85 Fed. Reg. 39113 (June 30, 2020), IRS Docket No. REG-112339-19, Comment ID IRS-2020-0013 (submitted Aug. 2, 2020), *available at* https://www.regulations.gov/document?D=IRS-2020-0013-0017.

permanently isolated or displaced by a lifecycle analysis. This would result in a cap based on the number of credits that can be claimed by a product or process equal to the volume of utilized qualified carbon oxides that originated from mechanical carbon capture equipment at a qualified facility. Those credits would then be compared to captured and permanently isolated or displaced carbon oxide emissions calculated by the lifecycle analysis. This approach is consistent with the 45Q accounting methods for the secure geologic storage of carbon dioxide. In geologic storage, the amount of credits that can be claimed for sequestered carbon dioxide is equal to the amount actually received from a qualified facility less any operational losses, e.g. from pumps and valves.

The following simplified decision tree and example, which we included in our original comments, illustrate the method.

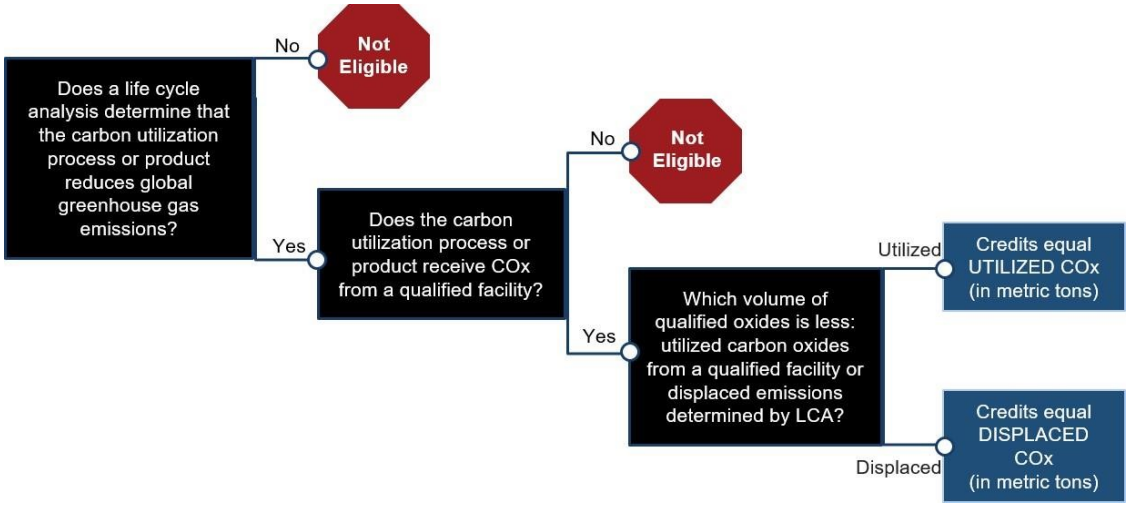

Figure 1. Simplified decision tree for calculation of utilization credits.

For example, suppose a cement manufacturing facility emits 100,000 metric tons of carbon dioxide in a taxable year. Equipment located at the facility captures 50,000 metric tons of carbon dioxide for a utilization process that turns the captured carbon dioxide into a synthetic fuel. A lifecycle analysis determines that the synthetic fuel produced with the captured carbon dioxide will displace greenhouse gas emissions relative to the baseline case (the lifecycle emissions of a conventional fuel) equal to 75,000 metric tons of CO_2-e. The lifecycle analysis finds that, of the 75,000 metric tons CO_2-e displaced, 35,000 metric tons are from displaced methane and 40,000 metric tons are from displaced carbon oxides. In this example, the utilized carbon oxide emissions would be 50,000 metric tons, and displaced carbon oxide emissions would be 40,000 metric tons. When 45Q credits are based on the lower of utilized and displaced carbon oxide emissions, the synthetic fuels process would generate 40,000 metric tons worth of credits.

This method for calculating the amount of utilization credits would respect the statutory

language that both (1) limits the amount of utilization credit to qualified carbon oxides and (2) calls for that calculation to be based on a lifecycle analysis of all greenhouse gases.

Limiting 45Q utilization credits in this way is important in order to maintain the fiscal and environmental integrity of the 45Q tax credit. We appreciate the methodical and deliberate steps the agency is taking to develop a carbon utilization crediting framework and thank the IRS and Treasury for the opportunity to provide further comments.

Sincerely,

Sasha Mackler, Director, Energy Project
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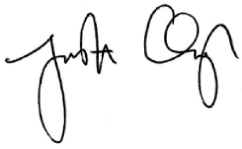

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