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Charles P. Rettig
Commissioner
Internal Revenue Service
1111 Constitution Avenue, NW
Washington, DC 20224

Commissioner Rettig,

The National Association of Bond Lawyers ("NABL") and its members welcome legislation that provides state and local governments with additional tools to finance infrastructure projects, including those related to clean and renewable energy. We were pleased to see that Section 80402 of the Infrastructure Investment and Jobs Act (the "IIJA") added a new category of tax-exempt bonds for the financing of qualified carbon dioxide capture facilities.

NABL is a nonprofit corporation and specialty bar association of approximately 2,500 lawyers whose purposes include, among other things, providing advice and comment at the federal, state, and local levels with respect to legislation, affecting state and municipal obligations.

In furtherance of NABL's mission, we respectfully submit the attached (i) summary of certain provisions of Section 80402 of the IIJA, and (ii) discussion of select issues on which guidance by the Department of the Treasury ("Treasury") and the Internal Revenue Service ("IRS") would be helpful. Given the fundamental nature of the issues described below, we urge the IRS and Treasury to consider using notices or other informal guidance that does not require a lengthy notice-and-comment period to accelerate the process for providing desperately needed clarifying interim guidance.

Sincerely,

Ann D. Fillingham
President
National Association of Bond Lawyers (NABL)

CC:

- Lily Batchelder, Assistant Secretary for Tax Policy, U.S. Department of Treasury
- Brett York, Deputy Tax Legislative Counsel, U.S. Department of Treasury
- Sunita Lough, Commissioner, TEGE, Internal Revenue Service
- Jian H. Grant, Branch Chief, CC:FIP:B5, Internal Revenue Service
- Helen Hubbard, Associate Chief Counsel, FIP, Internal Revenue Service

SUMMARY OF CERTAIN PROVISIONS OF SECTION 80402 OF THE IIJA

The IIJA sets forth four new sections of the Code[1] relating to qualified carbon dioxide capture facilities:

- section 142(a)(17) provides a new category of exempt facility bonds for qualified carbon dioxide capture facilities;
- section 142(o) defines what constitutes a "qualified carbon dioxide capture facility" within the meaning of section 142(a)(17);
- section 146(g)(6) provides a modified volume cap rule for exempt facility bonds issued pursuant to section 142(a)(17); and
- section 45Q(f)(3) provides conforming changes to the rules in section 45Q relating to the carbon dioxide sequestration credit.

Qualified Carbon Dioxide Capture Facilities – Section 142(o)

Under section 142(o)(1), the term "qualified carbon dioxide capture facility" means (A) the eligible components of an industrial carbon dioxide facility, and (B) a direct air capture facility.

Eligible Components of an Industrial Carbon Dioxide Facility

Eligible Component

Section 142(o)(A)(i) defines an "eligible component" as:

> any equipment which is installed in an industrial carbon dioxide facility that satisfies the requirements under paragraph (3) [i.e., the Capture and Storage Limitation, discussed below] and which is –
>
> (I) used for the purpose of capture, treatment and purification, compression, transportation, or on-site storage of carbon dioxide produced by the industrial carbon dioxide facility, or
>
> (II) integral or functionally related and subordinate to a process which converts a solid or liquid product from coal, petroleum residue, biomass, or other materials which are recovered for their energy or feedstock value into a synthesis gas composed primarily of carbon dioxide and hydrogen, for direct use or subsequent chemical or physical conversion.

As detailed further below, note that neither category of "eligible components" requires geologic storage of carbon dioxide. Further, in the case of (II) above, the actual capture of carbon dioxide is not required, and geologic storage is essentially precluded, because the synthesis gas must be either used or converted into something else.

[1] Unless otherwise indicated, all references herein to the "Code" are to the Internal Revenue Code of 1986, all references herein to a "section" are to the respective section of the Code, and all references herein to "Treas. Reg. §" are to the Treasury Regulations promulgated as of the date hereof.

Industrial Carbon Dioxide Facility

Under section 142(o)(2)(B)(i), the term "industrial carbon dioxide facility" means, except as provided in section 142(o)(2)(B)(ii),[2] a facility that emits carbon dioxide (including from any fugitive emissions source) that is created as a result of any of the following processes:

(I) Fuel combustion.
(II) Gasification.
(III) Bioindustrial.
(IV) Fermentation.
(V) Any manufacturing industry relating to—
  (aa) chemicals,
  (bb) fertilizers,
  (cc) glass,
  (dd) steel,
  (ee) petroleum residues,
  (ff) forest products,
  (gg) agriculture, including feedlots and dairy operations, and
  (hh) transportation grade liquid fuels.

NABL has collected the following examples of processes that generate carbon dioxide at industrial carbon dioxide facilities:

Gasification – carbon dioxide frequently is generated in the process of creating synthetic gas from solid or liquid waste materials ranging from petroleum residues (e.g., petroleum coke) to organic material such as waste from agricultural, feedlot, and dairy operations.

Bioindustrial – this term generally is understood to mean the use of biological systems, including microbes such as bacteria, yeast, and algae, to create new materials for use in medicines, food and beverage processing, and industrial applications. Many if not most of the systems produce carbon dioxide in the process.

Agriculture – decomposition of organic material (e.g., forest products, crop waste, animal manure) results in the generation of carbon dioxide.

Fermentation – this process generally involves the conversion of sugar into carbon dioxide and alcohol.

Industrial operations – these can range from direct generation of carbon dioxide (e.g., combustion of coke during steel production) to less direct carbon dioxide generation (e.g., burning of fuel to provide heat used in the industrial process, as in glassmaking).

[2] Section 142(o)(2)(B)(ii) provides that an "industrial carbon dioxide facility" shall not include (I) any geological gas facility, or (II) any air separation unit that - (aa) does not qualify as gasification equipment; or (bb) is not a necessary component of an oxy-fuel combustion process.

Capture and Storage Percentage Test

Section 142(o)(3) provides generally that if the "capture and storage percentage" of a facility is less than 65% (the "Capture and Storage Limitation"), the qualifying cost is reduced proportionately.[3]

For purposes of Capture and Storage Limitation, the "capture and storage percentage" of a facility is defined in section 142(o)(3)(C)(i) as the quotient of:

(I) the total metric tons of carbon dioxide designed to be annually captured by the facility, then transported and injected either into
  (aa) a facility for geologic storage, or
  (bb) an enhanced oil or gas recovery well followed by geologic storage, divided by

(II) the total metric tons of carbon dioxide which would otherwise be released into the atmosphere each year as industrial emission of greenhouse gas if the eligible components were not installed in the industrial carbon dioxide facility.

Section 142(o)(3)(C)(ii) provides, in effect, that the denominator for this fraction is determined only with respect to targeted sources of carbon dioxide. Importantly, the Capture and Storage Limitation seems to require that the carbon dioxide processed by any eligible component must be captured and then subjected to geologic storage.

Direct Air Capture Facilities

Section 142(o) cross-references section 45Q(e)(1) to define a "direct air capture facility" as "any facility that uses carbon capture equipment to capture carbon oxide directly from ambient air." For this purpose, "carbon capture equipment" is:

> equipment used for the purpose of (i) separating, purifying, drying, and/or capturing carbon oxide that would otherwise be released into the atmosphere from an industrial facility; (ii) removing carbon oxide from the atmosphere via direct air capture; or (iii) compressing or otherwise increasing the pressure of carbon oxide.[4]

Reduced Volume Cap Allocation – Section 146(g)(6)

Section 146(g)(6) requires that an issuer needs to obtain an allocation of volume cap in the amount of only 25% of an issue of exempt facility bonds for qualified carbon dioxide capture facilities. In other words, no volume cap is required for 75% of the issue.

Coordination with the Section 45Q Credit for Carbon Oxide Sequestration

Section 45Q provides generally for a federal tax credit based on the amount of "qualified carbon oxide" captured and, depending on various timing requirements, either disposed of or used by the taxpayer. Section 45Q(f)(3), which was added by the IIJA, provides for an up to 50% pro rata

[3] This test on its face is similar to the 65% test applied to solid waste recycling facilities. See Treas. Reg. § 1.142(a)(6)-1(g)(2)(ii). Note that it does not apply to facilities financed as direct air capture facilities described in section 142(o)(2)(B).
[4] Treas. Reg. § 1.45Q-2(c)(1).

reduction of the otherwise available section 45Q production tax credit the amount of such reduction being based on the portion of the credit-generating project financed using tax-exempt bonds.

SELECT ISSUES ON WHICH GUIDANCE WOULD BE HELPFUL

Certain of the qualified carbon dioxide capture bond provisions in section 142(o) raise interpretive issues that require guidance. This guidance is particularly critical because these issues are causing uncertainty that is sufficient to prevent bond counsel from being able to render an "unqualified" opinion that interest on the bonds is tax-exempt, which the tax-exempt debt market typically requires.

NABL recognizes that the process by which the IIJA was enacted did not generate the customary array of legislative history. While that may make the task of Treasury and the IRS more difficult, NABL believes that the overall intent of section 142(o) is sufficiently clear to allow for clarifying guidance. Moreover, NABL notes that section 142(o)(4) specifically provides that "[t]he Secretary shall issue such regulations or other guidance as are necessary to carry out the provisions of this subsection, including methods for determining costs attributable to an eligible component for purposes of paragraph (3)(A)."

Application of the Capture and Storage Limitation to Eligible Components

The most urgent need for guidance relates to the interplay between the Capture and Storage Limitation and the definition of "eligible component."

Simply stated, the challenge is this: by its terms, the Capture and Storage Limitation applies to all equipment to be financed as an "eligible component." This means that the carbon dioxide processed by an eligible component must be captured and stored geologically or else it seemingly cannot be financed with tax-exempt bonds. However, the definition of an eligible component under section 142(o)(2)(A)(i) does not necessarily require the capture and geologic storage of carbon dioxide. In such instances, bond counsel has a choice: either (i) there is no carbon capture and storage percentage to apply, or (ii) the Capture and Storage Limitation applies, but because these facilities do not involve geologic storage, the capture and storage percentage is and will always be zero, precluding financing on a tax-exempt basis. The first choice appropriately applies the Capture and Storage Limitation to only those projects that actually are designed to capture and store carbon dioxide, but the second choice renders significant portions of section 142(o)(2)(A)(i) moot. In reality, of course, bond counsel faced with this choice likely will be too uncertain as to the correct answer without IRS guidance to render an unqualified opinion that bonds issued to finance these facilities can be issued on a tax-exempt basis.

The following examples, which are based on actual proposed transactions that could not proceed due to this interpretive uncertainty, illustrate the problem:

> Example 1
>
> Developer proposes to construct a facility in which biomass collected from forestry or agricultural operations will be gasified to produce a synthesis gas ("syngas") consisting primarily of carbon dioxide and hydrogen. The syngas is further processed to produce a biofuel product, such as sustainable aviation fuel.

The proposed facility will take biomass recovered for its energy or feedstock value and convert it into syngas composed primarily of carbon dioxide and hydrogen, with the syngas being further processed chemically and physically to produce biofuel. Thus, the facility clearly meets the statutory eligibility requirements of section 142(o)(2)(A)(i)(II).

However, as is explicitly permitted under the statute, no carbon dioxide emissions are captured or stored geologically (i.e., it either has no capture and storage percentage, or it is zero). Instead, carbon residues that otherwise would have generated carbon dioxide emissions have been diverted into a process that prevents the carbon dioxide emissions from occurring at all. Thus, the facility does not satisfy the Capture and Storage Limitation either because there is no carbon capture and storage percentage, or it is zero, and, therefore, the facility does not appear to be financeable with tax-exempt bonds even though it fits squarely within the definition of section 142(o)(2)(A)(i)(II), *which does not require the capture or geologic storage of carbon dioxide*.

Example 2

Developer proposes to construct a carbon capture project at a power plant (which generates carbon dioxide from fuel combustion in the power production process). The proposed project will capture carbon dioxide emitted from the combustion process, treat, and purify the carbon dioxide, and compress it for use in the on-site production of algae. The algae can be further processed into products such as biofuel. This project clearly meets the requirements of section 142(o)(2)(A)(i)(I). Moreover, unlike Example 1 above, this project involves the capture of carbon dioxide. It does not, however, result in geological storage of carbon dioxide. Thus, as in the previous example, there is no capture and storage percentage that can be applied. As a result, it again appears that the project would not be eligible for tax-exempt financing even though it squarely fits within the definition of section 142(o)(2)(A)(i)(I), *which does not require the geologic storage of carbon dioxide*.

Congress almost certainly did not intend for the Capture and Storage Limitation to make moot significant portions of the definition of an eligible component. That interpretation of the statute would run afoul of the longstanding legal principle that a statute should be construed so that no part will be inoperative or superfluous, void, or insignificant.[5]

Accordingly, the IRS should clarify that the Capture and Storage Limitation applies only to projects at industrial carbon dioxide facilities that are designed to, and capable of, capturing and geologically storing carbon dioxide. Considered any differently, this test would render the plain language of section 142(o)(2)(A)(i) moot in many instances, which cannot be the correct result under typical methods of statutory interpretation.

Definition of Storage

Section 142(o) uses the term "storage" in two contexts: first, in section 142(o)(2)(A)(i)(I) relating to "eligible components" used for on-site storage of carbon dioxide and second, in section 142(o)(3) relating to the Capture and Storage Limitation described above. It is clear from the context that the term's use with respect to the eligible component definition is open-ended and is not restricted to any form of storage. In contrast, the term's use in the context of the Capture and

[5] *See e.g., Hibbs v. Winn*, 542 U.S. 88, 101 (2004).

Storage Limitation is specific and refers only to geological sequestration. The latter concept is well developed, but NABL believes there are some aspects of the term's usage in the eligible components context that could benefit from guidance.

First, consistent with the apparent overall intent of the statute, NABL believes it would be helpful to clarify that the term "storage" as used in section 142(o) is the equivalent of "sequestration." For example, in a short website discussing methods of carbon sequestration, the University of California, Davis uses the terms interchangeably in describing various types of carbon sequestration.[6]

Second, it would be helpful to confirm that the concept of "on-site" storage does not mean that the carbon dioxide must be stored in a specific chemical form. For example, the UC Davis website describes three basic types of carbon storage or sequestration: biological carbon sequestration, geological carbon sequestration, and technological carbon sequestration. Biological carbon sequestration essentially refers to the photosynthesis process by which plants take in carbon dioxide, water, and energy from the sun to give off oxygen and store the carbon from the carbon dioxide in plant carbohydrates. As noted in Example 2 above, for instance, projects currently under consideration involve the use of captured carbon dioxide to produce algae which can then be used to produce other products.

Third, NABL suggests clarification that the concept of sequestration or storage is open-ended. Presently, the principal modes of sequestration are biological and geological, but scientists and engineers are constantly looking for new approaches to this problem. As long as the process involves the stabilization of carbon in a form that does not result in the creation of carbon dioxide gases released into the atmosphere, it has achieved the statutory goal.

Finally, it would be helpful for the IRS and Treasury to confirm that the concept of "on-site storage" does not mean that the stored carbon must remain on site permanently. Whether the storage process occurs on-site is perhaps the more relevant concern and whether the material containing the stored carbon subsequently is sold or utilized should not affect the analysis.

Functionally Related and Subordinate Facilities

Subject to certain statutory exceptions, the definition of exempt facilities for purposes of section 142 generally includes, within each category, facilities that are "functionally related and subordinate" to the eligible facilities. Generally, there is no requirement that the functionally related facilities be located at the same site as the facilities to which they are functionally related.[7] In the case of "eligible components," section 142(o)(2)(A)(i) refers to equipment installed "in" an industrial carbon dioxide facility. However, we believe it would be helpful to clarify that the term "in" does not preclude the financing of equipment that is not actually located "in" the industrial carbon dioxide facility, so long as it is functionally related and subordinate to facilities that are located in such a facility. In other words, the IRS should apply the longstanding principles governing functionally related and subordinate facilities to qualified carbon capture facilities.

[6] *See* https://climatechange.ucdavis.edu/climate/definitions/carbon-sequestration.
[7] *See* Treas. Reg. § 1.103-8(a)(3).

Application of Capture and Storage Percentage Test to Direct Air Capture Facilities

NABL notes that there is a potential overlap between certain direct air capture facilities described in section 142(o)(1)(B) and eligible components described in section 142(o)(2)(A)(i)(I). This overlap would not affect the section 45Q adjustment, since the adjustment applies both to an "eligible component" financing and a direct air capture facility financing, but it would be relevant for determining whether or not the Capture and Storage Limitation applies because the Capture and Storage Limitation does not apply to direct air capture facilities. NABL believes it would be helpful to explicitly clarify that, if a facility qualifies as a direct air capture facility under section 142(o)(1)(B), the Capture and Storage Limitation should not apply regardless of whether the facility also meets the definition of an eligible component.

CONTACT INFORMATION

The primary authors of this submission are Charles S. Henck, Washington, D.C., and Brian P. Teaff, Houston, TX, who received assistance from members of NABL's Tax Law Committee and Board of Directors. If you have any questions concerning this submission, please contact our Director of Governmental Affairs, Brian Egan, at 202-503-3290 or began@nabl.org.