November 4, 2022

Internal Revenue Service
CC:PA:LPD:PR (Notice 2022-49)
Room 5203
P.O. Box 7604
Ben Franklin Station
Washington, D.C. 20044

Filed electronically via the Federal eRulemaking Portal at **www.regulations.gov**

Re: Response to Notice 2022-49; Comments on Section 49(c)(6) Definition of Energy Storage Technology

Dear Sir or Madam:

The Energy Infrastructure Council ("EIC") is pleased to submit comments in response to the request for comments in Notice 2022-49, Section 3.02(1) regarding the expanded definition of energy property to include energy storage technology, including the storage of hydrogen.

The EIC is a non-profit trade association dedicated to advancing the interests of companies that develop and operate energy infrastructure. EIC addresses core public policy issues critical to investment in America's energy infrastructure. Our members are both public and private traditional and renewable energy infrastructure companies that ensure that a wide variety of energy products make their way efficiently and safely from the production facilities and fields to American homes, businesses and communities.

We appreciate the opportunity that the IRS and Treasury have provided to taxpayers to comment on the guidance needed with respect to the provisions of the Inflation Reduction Act and we welcome the clarifications that will be forthcoming pursuant to such guidance.

We present below our comments with respect to the expanded definition of energy property to include energy storage technology, in particular with respect to hydrogen storage.

Recommendations

We recommend that guidance provide that "energy storage technology" includes with respect to hydrogen storage all equipment, facilities, storage receptacles, dedicated vehicles and vessels used to compress, liquify, store and distribute hydrogen and hydrogen carriers, such as ammonia, methanol and other forms of hydrogen carriers.

Discussion

Inflation Reduction Act section 13102(f) amends section 48(c) of the Internal Revenue Code to add section 48(c)(6) as follows:

> (6) Energy Storage Technology –
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> (A) In General – The term "energy storage technology" means -
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> (i) property (other than property primarily used in the transportation of goods or individuals and not for the production of electricity) which receives, stores, and delivers energy for conversion to electricity (or, in the case of hydrogen, which stores energy), and has a nameplate capacity of not less than 5 kilowatt hours, and
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> (ii) thermal energy storage property.

Definition of Hydrogen Storage Property

Notice 2022-49, in section 3.02(1) asks what should the Treasury Department and the IRS consider in determining what types of technologies are included in the definitions of these new types of energy property?

Hydrogen storage is clearly encompassed by "energy storage technology" as it is referenced in a parenthetical in the definition of such storage property. However, the statute provides no further elucidation of the equipment or methodology of storage of hydrogen that is encompassed by the reference.

Methods of Hydrogen Storage

Based on the extensive experience of the members of the EIC in storing and transporting hydrogen, we offer for your consideration a description of the hydrogen storage processes and related equipment.

In general, hydrogen can be stored physically as either a gas or a liquid. Storage of hydrogen as a gas typically requires high-pressure tanks or cylinders, gaseous tube trailers or cryogenic liquid tanker trucks. Storage as a liquid requires cryogenic temperatures and storage in cryogenic tanks. Hydrogen can also be stored on the surface of (adsorption) or within solid materials (absorption). Underground hydrogen storage is the practice of gaseous hydrogen storage in caverns, salt domes and depleted oil and gas fields.

Hydrogen storage does not occur solely at or within the production facility gates; storage occurs in a wide variety of locations as hydrogen (or a hydrogen carrier) is transported to its destination. Due to the difficulty in storing and transporting hydrogen in its gaseous or liquid form, hydrogen is very often converted to "carriers" such as (most frequently) ammonia, or sometimes to methanol, for purposes of storage and transport, followed by its reconversion back to pure hydrogen at its arrival destination.

Hydrogen can be transported through (and stored in) dedicated hydrogen pipelines. Although it is possible to transport hydrogen in a non-dedicated or regular pipeline, the amount of hydrogen that can be mixed in with the other transported gas (e.g., methane) without requiring a retrofit is very limited. Therefore, we expect that retrofitting of pipelines will be essential to accommodate the amount of hydrogen that will need to be transported in the new hydrogen economy.

Suggested Definition

Accordingly, we suggest that any guidance that provides specifics with respect to the property that is "energy storage technology" include:

- Equipment and facilities that compress hydrogen
- Equipment that transfers hydrogen to a storage receptacle
- Equipment that liquefies hydrogen or liquefaction equipment
- Storage receptacles of all types, including vessels and tanks (pressurized or not, sea-going or not)
- With respect to pipelines,
    - dedicated hydrogen pipelines and associated compression equipment and electrical support
    - retrofitting of existing pipelines and associated equipment to facilitate transportation and storage of hydrogen
- With respect to storage in salt domes or caverns, all equipment related to the creation and operation of the cavern as a storage site such as pumping, compression and leaching equipment, electrical system support, disposal wells and brine ponds
- All vehicles that are dedicated to hydrogen storage such as cryogenic liquid tanker trucks
- Distribution equipment such as tube trailers, dedicated rail cars and dedicated pipelines
- Tanks, vessels, storage receptacles for hydrogen "carriers" such as ammonia, methanol and any other forms of hydrogen carriers.

Purpose-free Definition

As might be apparent from the suggested definition of storage property described above, we recommend that the definition of energy storage technology with respect to hydrogen not import into the definition any restrictions on the purpose for which the hydrogen will be used. In other words, the types of storage property should apply regardless of whether the hydrogen will be sold to third parties, used to produce power, used as a fuel or used as an ingredient in another chemical product or fuel.

Endorsement of Fuel Cell and Hydrogen Energy Association Comments

In preparing these comments we have conferred with the Fuel Cell and Hydrogen Energy Association (FCHEA) and wish to endorse their comments submitted to you on the same topic. The members of FCHEA, together with the members of EIC, represent many of the companies that will be tasked with transitioning the United States into the "hydrogen economy." Implementation of the suggestions above will allow us to help with this mission.

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We appreciate the opportunity to offer comments in response to Notice 2022-49. If you have questions, please do not hesitate to contact Lori Ziebart at Lori@eic.energy or 202-747-6570.

Sincerely,

Lori E. L. Ziebart
President & CEO
Energy Infrastructure Council