Department of Treasury and Internal Revenue Service
Electronically via the Federal eRulemaking Portal
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RE: Notice 2022-58 - Comments on Credits for Clean Hydrogen and Clean Fuel Production

Dear Sir or Madam,

Cummins Inc., a global power leader, is a corporation of complementary business segments that design, manufacture, distribute and service a broad portfolio of power solutions. The company's products range from diesel, natural gas, electric and hybrid powertrains, and powertrain-related components including filtration, aftertreatment, turbochargers, fuel systems, controls systems, air handling systems, automated transmissions, engine braking technologies (axles, brakes, and related drivetrain solutions) as well as electrified power systems and related components (batteries, hydrogen generation and fuel cell products). We appreciate the opportunity to comment on Credits for Clean Hydrogen and Clean Fuel Production, § 45V and § 45Z. We look forward to working more closely with the Department of the Treasury and the Internal Revenue Service (IRS) to share the expertise and knowledge of our business as you implement provision of the Inflation Reduction Act. As you note in your request for comments it is critically important the interests of all stakeholders be considered and understood when developing regulations. As a result, I have enclosed Cummins Comments in response to specific questions within Notice 2022-58.

Regards,

Cathy Y. Choi, Ph.D.
Executive Director, Cummins Inc.

Cummins Response to Notice 2022-58 SECTION 3. REQUEST FOR COMMENTS

.01 Credit for Production of Clean Hydrogen.

(1) Clean Hydrogen. Section 45V provides a definition of the term "qualified clean hydrogen." What, if any, guidance is needed to clarify the definition of qualified clean hydrogen?

Cummins Comment: Guidance is needed on common methodology and process for determining lifecycle CO2e. The methodology and process should include changes to projects over time (e.g., change in electricity supply). The common process should include details on the independent body responsible for reviewing submitted lifecycle CO2e emissions assessments of individual projects. Also, harmonization with clean H2 certification schemes outside the US would remove barriers to US H2 producers exporting produced clean H2 to international markets.

(b)(i) How should lifecycle greenhouse gas emissions be allocated to co-products from the clean hydrogen production process? For example, a clean hydrogen producer may valorize steam, electricity, elemental carbon, or oxygen produced alongside clean hydrogen.

Cummins Comment: Clarification is needed on co-products' lifecycle greenhouse gas emissions assessment. It is unclear if co-products are always included in the emissions assessment or only when co-products are valorized.

b(iii) What considerations support the recommended approaches to these issues?

Cummins Comment: The lifecycle calculation should include generation by the production of the electricity consumed by the process, generation by sourcing and transporting the feedstock, generation by manufacturing and installing the equipment for the conversion process and reduction or sequestration by the site/application.

(c)(i) How should lifecycle greenhouse gas emissions be allocated to clean hydrogen that is a by-product of industrial processes, such as in chlor-alkali production or petrochemical cracking?

Cummins Comment: By-products' lifecycle greenhouse gas emissions should be assessed to validate a clean designation.

(d) If a facility is producing qualified clean hydrogen during part of the taxable

year, and also produces hydrogen that is not qualified clean hydrogen during other parts of the taxable year (for example, due to an emissions rate of greater than 4 kilograms of CO2-e per kilogram of hydrogen), should the facility be eligible to claim the § 45V credit only for the qualified clean hydrogen it produces, or should it be restricted from claiming the § 45V credit entirely for that taxable year?

Cummins Comment: To support production of clean H2, facilities should be eligible to claim the § 45V credit for the qualified clean hydrogen it produces.

(e) How should qualified clean hydrogen production processes be required to verify the delivery of energy inputs that would be required to meet the estimated lifecycle greenhouse gas emissions rate as determined using the GREET model or other tools if used to supplement GREET?

Cummins Comment: Guidance is needed for common methodology and process, as commented in (1) Clean Hydrogen, that includes quantification of feedstock in H2 production processes.

e(i) How might clean hydrogen production facilities verify the production of qualified clean hydrogen using other specific energy sources?

Cummins Comment: Similar to comment in c(i), energy source lifecycle greenhouse gas emissions should be assessed to validate a clean designation

(2) Alignment with the Clean Hydrogen Production Standard. On September 22, 2022, the Department of Energy (DOE) released draft guidance for a Clean Hydrogen Production Standard (CHPS) developed to meet the requirements of § 40315 of the Infrastructure Investment and Jobs Act (IIJA), Public Law 117-58, 135 Stat. 429 (November 15, 2021). The CHPS draft guidance establishes a target lifecycle greenhouse gas emissions rate for clean hydrogen of no greater than 4.0 kilograms CO2-e per kilogram of hydrogen, which is the same lifecycle greenhouse gas emissions limit required by the § 45V credit. For purposes of the § 45V credit, what should be the definition or specific boundaries of the well-to-gate analysis?

Cummins Comment: Please clarify if the lifecycle greenhouse gas emissions definition for § 45V credit is harmonized between CHPS (stemming from the IIJA) and the IRA (emissions from upstream, on-site, downstream).

(3) Provisional Emissions Rate. For hydrogen production processes for which a lifecycle greenhouse gas emissions rate has not been determined for purposes of § 45V, a taxpayer may file a petition with the Secretary for determination of the lifecycle greenhouse gas emissions rate of the hydrogen the taxpayer produces.

(a) At what stage in the production process should a taxpayer be able to file such a petition for a provisional emissions rate?

Cummins Comment: With respect to production projects, in order to assess a its tax credit eligibility, provisional emissions rates should be provided during project development stage.

(4) Recordkeeping and Reporting.

(a) What documentation or substantiation do taxpayers maintain or could they create to demonstrate the lifecycle greenhouse gas emissions rate resulting from a clean hydrogen production process?

Cummins Comments: A criteria based on common and standardized methodology, process (including audit process) and assessment reports on lifecycle greenhouse gas emissions is needed for determining provisional emissions rate.

(b) What technologies or methodologies should be required for monitoring the lifecycle greenhouse gas emissions rate resulting from the clean hydrogen production process?

Cummins Comment: Site sensors/measurement devices or models need measure the amount of energy used, the amount of auxiliary power consumed to run the process, the amount of H2 produced, the amount of H2 that was actually provide to a downstream consumer (e.g. vented/flared H2 may be waste or by-product and therefore should not apply) and the amount of CO2 that was reduced/sequestered by the process that would have otherwise been released into the atmosphere if not for the H2 production plant.

(d) What procedures or standards should be required to verify the production (including lifecycle greenhouse gas emissions), sale and/or use of clean hydrogen for the § 45V credit, § 45 credit, and § 48 credit?

Cummins Comments: A clearly defined process, including responsibilities, and harmonized standards with other US and ideally international H2 certification methods should be used for verification. Included in the method should be verification of

production and actual H2 usage as opposed to being vented or flared. The verification process should also be executed in a swift manner to avoid production delays.

(f) Should indirect book accounting factors that reduce a taxpayer's effective greenhouse gas emissions (also known as a book and claim system), including, but not limited to, renewable energy credits, power purchase agreements, renewable thermal credits, or biogas credits be considered when calculating the § 45V credit?

Cummins Comment: A book and claim system will support more projects to be developed