December 2, 2022

The Honourable Janet Yellen
Secretary
United States Treasury
1500 Pennsylvania Avenue, N.W.
Washington, D.C. 20220

Re: Request for Comments on Credits for Clean Hydrogen and Clean Fuel Production

Dear Secretary Yellen,

StormFisher Hydrogen Ltd. (StormFisher) is pleased to provide comments to the U.S. Department of Treasury regarding Credits for Clean Hydrogen and Clean Fuel Production. We have responded to select questions from the Request (Notice 2022-58). We applaud the U.S. Department of Treasury's initiative and leadership in setting guidelines for these newly created tax credits.

StormFisher Hydrogen Background

StormFisher Hydrogen Ltd. is a project developer, financier, and operator focused on producing renewable, hydrogen-derived fuels that enable the transition to a low-carbon future. Founded in 2006, StormFisher initially focused on developing and operating biogas facilities. We successfully developed several biogas facilities, including one in Orlando, Florida, and another in London, Ontario, Canada. We have turned our focus to clean hydrogen as we see enormous potential and need for infrastructure development in North America. StormFisher is pursuing various pathways for hydrogen, including direct industrial use, conversion to methane for heating applications, and conversion to methanol for the marine sector.

Credit for Production of Clean Hydrogen (§ 45V)

(1)(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?

> StormFisher has experience evaluating the different GHG emissions allocation methodologies for hydrogen production in the case of co-products and by-products. In particular, StormFisher has engaged with many chlor-alkali producers. We have found that by-product hydrogen is handled in any combination of venting, burning onside for heat and power, and even used to make further products such as hydrochloric acid. By-product hydrogen generally goes to various end uses rather than a sole use case.
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> In the case of chlor-alkali by-products, each GHG emissions allocation method its flaws. The light nature of hydrogen distorts the mass allocation method. Energy allocation is not practical in the case of non-energy by-products. The concept of displacement or system expansion is not

straightforward since the base scenario can be ambiguous. Due to these complications, StormFisher encourages the Treasury Department and IRS to consider economic allocation as the primary method.

GHG emissions should be allocated on an economic basis to by-product hydrogen and hydrogen co-products rather than energy-based, mass-based, or system expansion approaches.

Economic allocation offers a fair method that removes the bias created by mass differences and non-energy products. The critical requirement for economic allocation to work is to set the economic values fairly and transparently. This is an area where the Department of Energy or the Department of Treasury and IRS could provide clear direction, making economic allocation suitable and easy to use methodology.

(1)(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?

StormFisher urges the Treasury Department and IRS to be lenient when awarding the § 45V credit for the production of qualified clean hydrogen and avoid restricting entities from claiming the credit. Ultimately, it would be punitive to disqualify an entity in its entirety from claiming the credit if there is any production of hydrogen that is not qualified clean hydrogen during parts of the taxable year. So StormFisher urges the Treasury to allow entities to claim the credit limited to the qualified clean hydrogen produced if there was non-qualified clean hydrogen produced during the taxable year.

(1)(e)(ii) What granularity of time matching (that is, annual, hourly, or other) of energy inputs used in the qualified clean hydrogen production process should be required?

StormFisher is open to the concept of granular time-matching requirements on an hourly basis. Time-matching requirements would create a better link between clean energy production and clean hydrogen production. However, if implemented, a key consideration must be to make the administration of time matching effective and manageable. StormFisher understands that there are time-of-use tracking platforms and systems available. However, they are relatively new and may need more time to be ready for implementation on a large scale. Therefore, it would be pragmatic to use annual time-matching initially and add time-matching requirements later after these tracking systems are proven.

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

StormFisher encourages the Treasury Department and IRS to allow taxpayers to file a petition quite early in the production process, preferably before construction has commenced on the clean hydrogen production facility. To make a final investment decision on such a facility, the taxpayer must be certain that hydrogen will qualify for the credit. Therefore the provisional

emissions rate should be issued early in the process. This is a critical step in unlocking billions of dollars in clean hydrogen infrastructure investment from the private sector.

(6)(c) Coordination with § 45Q. Are there any circumstances in which a single facility with multiple unrelated process trains could qualify for both the § 45V credit and the § 45Q credit notwithstanding the prohibition in § 45V(d)(2) preventing any § 45V credit with respect to any qualified clean hydrogen produced at a facility that includes carbon capture equipment for which a § 45Q credit has been allowed to any taxpayer?

StormFisher encourages coordination between § 45Q and § 45V in the case of combining green hydrogen with captured carbon to produce electrofuels such as e-Methanol and e-Methane. Under these circumstances, there are unrelated process trains for green hydrogen and captured carbon. Unlike a blue hydrogen facility, which relies on carbon capture to produce clean hydrogen, an electrofuels facility would use captured carbon to augment clean hydrogen into a more easily used fuel. StormFisher believes such a facility should be eligible for both credits.

Clean Fuel Production Credit (§ 45Z).

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

Similar to our comments for provisional emissions rates for § 45V, StormFisher encourages the Treasury Department and IRS to allow taxpayers to file a petition quite early in the production process, preferably before construction has commenced on the clean fuel production facility. To make a final investment decision on such a facility, the taxpayer must be certain that the clean fuel will qualify for the credit. Therefore the provisional emissions rate should be issued early in the process. This is a critical step in unlocking billions of dollars in clean fuel infrastructure investment from the private sector.

Closing Comments

StormFisher appreciates the opportunity to provide comments and suggestions to the Department of Treasury and IRS. Please do not hesitate to contact us if you have any questions about the information contained herein.

Yours truly,

Brandon Moffatt, P.Eng, MBA

Co-Founder
StormFisher Hydrogen Ltd.