NRDC Oral Testimony

March 25, 2024

45V Clean Hydrogen Production Tax Credit

Internal Revenue Service

Good afternoon,

My name is Erik Kamrath and I'm the federal Hydrogen Advocate for the Natural Resources Defense Council. NRDC's mission is to safeguard the earth – its people, its plants and animals, and the natural systems on which all life depends.

NRDC thanks Treasury for diligently considering the legal, climate, economic, and technical evidence in publishing their proposal for the 45V clean hydrogen tax credit.

NRDC fully supports Treasury's proposal for electrolytic hydrogen production and we urge Treasury to finalize this strong proposed guidance – which includes the three pillar framework -- in its current form without broad exemptions.

A wide-ranging and diverse set of U.S. taxpayers supports the administration's proposal for electrolytic hydrogen which includes:

The consensus of environmental and public health organizations, industry groups across the hydrogen value chain, members of congress, consumer advocate groups, and environmental justice groups.

In my testimony today, I will focus on three aspects of why Treasury's proposal for electrolytic hydrogen production should be finalized in its current form, which include that the proposal is: consistent with clear statutory language, it's consistent with congressional intent, and it's the fiscally responsible solution.

Additionally, I'll explain why the 5-10 percent allowance for existing clean energy to qualify as incremental - which treasury is considering - is an explicit violation of IRA emissions thresholds and should be rejected.

Statutory Language

First and foremost, NRDC would like to highlight that Treasury's proposal for electrolytic hydrogen production is consistent with statutory language in the Inflation Reduction Act.

Treasury is statutorily required to consider significant indirect emissions from hydrogen production as demonstrated by the IRA's cross-reference to the Clean Air Act's Renewable Fuel Standard.

Because induced grid emissions squarely constitute as "significant indirect emissions" from hydrogen production, Treasury is required to consider induced grid emissions when calculating lifecycle greenhouse gas emissions of electrolytic hydrogen projects.

The EPA has also confirmed this finding to be consistent with the agency's longstanding interpretation and application of section 211(o)(1)(H) of the Clean Air Act. NRDC's legal assessment is in full agreement with the EPA, as we have previously outlined in our joint legal comments with the Clean Air Task Force which have been submitted in the record.

Given this logic is well substantiated, treasury must account for induced grid emissions when determining whether a project meets the IRA emissions thresholds.

Overwhelming evidence – including from DOE and the EPA – shows that absent the three pillars, the risks of significant induced grid emissions from hydrogen production are high.

This expert assessment by the agencies is robustly substantiated.

Studies by Princeton ZERO Lab, Energy Innovation, and the MIT Energy Initiative find that if hydrogen projects are not required to comply with all three pillars, they could have an emissions intensity upwards of 40 times above the 45V threshold to qualify for the $3 per kilogram of hydrogen credit value. The Electric Power Research Institute and Evolved Energy Research draw the same conclusion.

Furthermore, ERM consulting recently conducted a meta literature review of 30 independent reports and analysis on the topic, which confirmed there is a very strong consensus that hydrogen production will drive substantial emissions increases if the three pillars are not in place.

Therefore, by using the three pillars as a proxy for induced grid emissions, Treasury has made a reasonable, factual determination that follows the express statutory language of Congress.

In short, failing to consider significant indirect emissions from hydrogen projects and failing to require the three pillars would be an explicit violation of clear statutory language, a flagrant departure from legal precedent, and would violate IRA emissions thresholds.

It's also noteworthy that DOE and EPA have confirmed that the three pillars are a reasonable and appropriate proxy to determine minimal to zero induced grid emissions.

Congressional Intent

In addition to being consistent with statutory language, the three pillars are entirely consistent with Congressional intent.

Decarbonization of U.S. economy

Since weakening the three pillars would lead to significant emissions increases from hydrogen production, doing so will fundamentally undermine the animating purpose of the enabling statute in the IRA – to support the decarbonization of the U.S. economy.

It's noteworthy that parties calling on Treasury to weaken the three pillars consistently fail to explain how their position in support of weaker rules is consistent with Congress's stated purpose to reduce U.S. greenhouse gas emissions or the IRA's explicit incorporation of section 211(o) of the Clean Air Act.

Industry Growth

The three pillars will also support substantial industry growth as Congress intended. Claims that the three pillars will hinder industry growth consistently flout on the ground evidence and are contrary to the best analytical findings.

The bulk of first mover projects in the U.S. and the EU are three pillar compliant. We list a subset of those projects beginning on page 27 in our written comments.

A resounding chorus of companies publicly supported Treasury's proposal and are providing comment to that effect this week. In December 2023, Air Products, Hystor Energy, Synergetic, EDP Renewables, among others sent a letter to Treasury expressing confidence in the three pillars' ability to deliver robust industry growth, indicating that they have a collective scale of planning and interest exceeding a whopping 50 Gigawatts of three-pillar compliant projects in the U.S. This scale alone will deliver significant technology cost reductions, and likely more than halve the costs of electrolyzer technologies in this decade.

The European Union also offers a powerful case study and further evidence that the three pillars will support substantial industry growth.

Despite some in industry crying wolf that the three pillars would stymie growth in the EU, the pipeline of announced hydrogen projects since the EU adopted the three pillars in 2023 has already grown by 20 percent.

We further outline the rapid growth in the EU since the three pillars were adopted beginning on page 25 of our written comments.

The trends coming out of the EU should provide confidence that the U.S. industry will grow similarly. This should encourage Treasury to be acutely skeptical of contradictory claims.

The analytical evidence finding that the three pillars will not hinder the cost-competitiveness of projects is equally overwhelming. We summarize the evidence in our written comments on pages 21-38.

Fiscal impacts

In addition to scaling a hydrogen industry that decarbonizes the U.S. economy as Congress intended, it is also worth underscoring that the three pillars are the fiscally responsible solution.

The Electric Power Research Institute has estimated that the fiscal costs of 45V could be substantial if the pillars are weakened.

Their lower-end estimates show that total fiscal outlays with the three pillars would amount to $385 billion dollars, but that number rapidly slips into the upper 400's and 500's of billions of dollars as the pillars are weakened.

Broad exemptions for existing clean power resources

Lastly, I will remark on the emissions impacts and cost implications of the 5-10% broad allowance that treasury is considering.

The Rhodium Group, Energy Innovation, and Princeton have all independently found that the 5-10% broad proxy would lead to substantial and unlawful induced grid emissions.

The Rhodium Group found that a 5 percent allowance would drive up to nearly 1.5 billion metric tons of increased emissions cumulatively through 2035.

A 5 to 10 percent proxy will drive substantial induced grid emissions and support hydrogen production with a lifecycle GHG intensity up to 5 times worse than section 45V's lowest emissions threshold.

This allowance is clearly in violation of the IRA statutory requirements and should be rejected.

Furthermore, it's noteworthy that a 5-10 percent allowance would cost taxpayers approximately an extra $50-100 billion dollars in fiscal outlays over the 10-year tax credit period and produce highly emitting hydrogen.

NRDC offers more targeted flexibilities for existing clean energy to qualify as incremental without violating statutory requirements starting on page 65 of our written comments.

Conclusion

In sum, Treasury has shown a commendable commitment to statutory language, scientific fact, soliciting input, and rulemaking.

As you work to finalize these rules, we urge you to finalize the strong proposal without broad exemptions.

The three-pillar scenario is the only one that lowers costs to U.S. taxpayers, reduces emissions, is consistent with statutory language and congressional intent, will scale the hydrogen industry, and supports the decarbonization of the U.S. economy.