



November 14, 2022

U.S. Department of Energy
1000 Independence Ave SW
Washington, DC 20585

Submitted electronically to: Cleanh2standard@ee.doe.gov

RE: Clean Hydrogen Production Standard

To Whom It May Concern,

Enclosed please find the state of Colorado's comments on the U.S. Department of Energy's (DOE) draft guidance for a Clean Hydrogen Production Standard, (CHPS), developed to meet the requirements of the Bipartisan Infrastructure Law (BIL), Section 40315. Thank you for the opportunity to provide comment.

Sincerely,

A handwritten signature in black ink that reads 'Will Toor'.

Will Toor
Executive Director
Colorado Energy Office

Introduction:

The U.S. Department of Energy (DOE) released draft guidance proposing a Clean Hydrogen Production Standard (CHPS) that was developed to meet the requirements of the Bipartisan Infrastructure Law (BIL), Section 40315. The CHPS proposal establishes a target of 4.0 kgCO₂e/kgH₂ for lifecycle (i.e., "well-to-gate") greenhouse emissions associated with hydrogen production, accounting for multiple requirements within the BIL provision, as well as the incentives provided in the Inflation Reduction Act (IRA). This memo contains the State of Colorado's comments on those provisions.

Comments:**Data and Values for Carbon Intensity**

- 1) In response to question 1a, the State of Colorado appreciates the DOE's flexibility provided in the guidance with respect to the range of variables that might be adjusted to aid in the overall goals. What is absent from the guidance is any discussion of how producers apply upstream emissions rates for entire basins or those applicable to specific producers. The CHPS guidance assumes 1%, which seems unlikely and gives an unearned advantage to many regions that don't have strong methane regulations as are the case in our region. Also absent from the guidance is any discussion of how the mitigation steps will be measured and assessed by DOE. Colorado thinks DOE should take an approach that allows projects that invest in lower methane emission technologies and monitoring and more proactive regulatory requirements to potentially reap economic benefits from their investments in cleaner hydrogen. Generalized default parameters may not reward states with regulatory programs that exceed federal standards, and such parameters may not respond to changes in grid and power sources for specific projects.
- 2) As stated in question 1b, GREET was used as the basis for developing targets in the CHPS and that GREET contains default estimates such as carbon intensity (CI) for regional grids. While Colorado appreciates the capacity of the GREET tool, the GREET defaults for regional grids are problematic. The WECC average, which is the default for Colorado, has a higher CI than the electricity in Colorado and as a consequence the ambitious steps and investments the state and utilities have taken in Colorado to reduce the CI of its grid would not be taken into consideration for production of clean hydrogen. Colorado has legal requirements and adopted electric resource plans which will lead to rapid decarbonization over the next decade, as all coal plants in the state are retired and replaced with wind, solar, storage and a limited amount of low capacity factor gas combustion turbines. There should be an ability to take into account future grid intensity during the period that electrolyzers will be operating, when these projections are based upon legal requirements and adopted resource plans. It is possible that projects which actually meet the standard would be excluded from qualifying if regional defaults are used.

Implementation

- 3) Question 3c seeks input on the use of renewable energy credits (RECs), power purchase agreements (PPAs), or other market structures in characterizing CI for electricity emissions. Colorado appreciates the opportunity to provide input into these questions and supports the use of these structures in calculating CI.

Renewables should not need to be physically located on site, and PPAs certainly should count. We also believe that bundled RECs should qualify.