

Energy and Technology Committee JOINT FAVORABLE REPORT

Bill No.: HB-6851
AN ACT IMPLEMENTING RECOMMENDATIONS OF THE HYDROGEN TASK
Title: FORCE.
Vote Date: 3/14/2023
Vote Action: Joint Favorable Substitute
PH Date: 3/7/2023
File No.:

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SPONSORS OF BILL:

[Rep. Mary M. Mushinsky, 85th Dist.](#)
[Rep. Holly H. Cheeseman, 37th Dist.](#)

REASONS FOR THE BILL:

Connecticut needs to expand its energy infrastructure to satisfy its future demands while finding sustainable alternative energy sources to help it reach its carbon emissions reduction goals and renewable targets. Developing, procuring, and employing hydrogen fuel assets may benefit both goals. This bill would implement the recommendations of the Hydrogen Task Force to grow Connecticut's clean hydrogen economy and to actualize the benefits that may rest with Connecticut's hydrogen power industry. The implementation would be in a manner consistent with Conn. Gen. Stat. § 22a-200a, the Integrated Resources Plan approved under to Conn. Gen. Stat. § 16a-3a and the Comprehensive Energy Strategy prepared according to Conn. Gen. Stat. § 16a-3d.

DEEP would implement the recommendations of the task force. DEEP would also develop and approve a clean hydrogen plan with two goals. The first being to prioritize the application of clean hydrogen for end uses and sectors within the state that are most difficult to electrify. The second objective is to report on the current and projected cost differences between powering such end uses and sectors with clean hydrogen relative to fossil fuels.

RESPONSE FROM ADMINISTRATION/AGENCY:

Katie Dykes, Commissioner, CT Dept. of Energy & Environmental Protection (DEEP) & CT Department of Economic and Community Development (DECD) – Welcomes the opportunity to increase the use of hydrogen power in Connecticut, which DEEP has stated previously in its Comprehensive Energy Strategy. However, DEEP and DECD have two primary concerns about the bill language. Their first recommendation pertains to the scope of the 'clean hydrogen project' proposed in the bill such that it is "commensurate with the two-megawatt project limitation in the definition of 'renewable energy projects'" (DEEP and DECD Testimony; March 7, 2023). DEEP and DECD also recommend having "some discretion on

which projects receive funding, and how much match funding is provided to ensure economic viability and appropriate return on investment to the state, if projects win federal funding rewards." They have further concerns about the budget funding available for such programs. The bill would require "DECD to provide DEEP a grant of up to \$20 million to match federal requirements," which is not included in the Governor's budget nor DECD's funding DECD also recommends excluding the \$20 million proposed in the bill because it may deter additional private or philanthropic investments.

Marissa Gillett, Chairman, CT Public Utilities Regulatory Authority (PURA) – Supports the bill since it would encourage further research on how to target clean hydrogen to meet Connecticut's energy and climate goals. PURA also supports the "amendment of Conn. Gen. Stat. § 31-53d to include clean hydrogen projects among those required to establish a workforce development program, enter into a community benefits agreement with an organization representing the community's residents, and require that contractors pay prevailing wage" since it would ensure that energy generators will benefit the communities in which they operate (Marissa Gillett; PURA Testimony; March 7, 2023). PURA also notes that "the language in statutes related to gas companies and natural gas is fairly broad and could be interpreted as extending PURA's rate regulation and safety jurisdiction to include distribution of hydrogen by public service companies for the purposes of heat or power," for which the Authority is not advocating.

NATURE AND SOURCE OF SUPPORT:

Katherine Ayers, Vice President of Research and Development, Nel Hydrogen – Supports the bill as it encourages further progress enabling Connecticut to capitalize on its hydrogen power assets and support hydrogen innovation. The bill supports the state's clean hydrogen economy by directly incentivizing businesses and jobs in hydrogen power to develop and grow. To do this, they recommend that "state matching funding be contingent on the hydrogen and fuel cell technology having substantial manufacturing content within Connecticut" (Katherine Ayers; Nel Hydrogen Testimony; March 7, 2023). The bill would benefit the state's economic, energy, and environmental goals.

Enrique Bosch, Director of Innovation, Avangrid – Supports the bill's intention to grow the state's hydrogen power economy since hydrogen presents a decarbonization and economic opportunity. Moreover, Avangrid recommends that the bill include funding to increase community engagement to "decrease the burden of engagement on communities" (Enrique Bosch; Avangrid Testimony; March 7, 2023).

Aziz Dehkan, Executive Director, CT Roundtable on Climate and Jobs – Supports the bill as part of Connecticut's effort to mitigate the effects of climate change. The bill would encourage the development and use of clean hydrogen power generation, which has the potential to reduce emissions in some sectors where electrification is not practicable.

James Desantos, Legislative Liaison, CT Green Bank – Supports the bill because it would support the development of a clean hydrogen industry in Connecticut. The bill calls for implementing a strategic plan, including recommendations for policies, programs, and regulations to grow the state's clean hydrogen economy per Connecticut's emission reduction and decarbonization goals, especially at the most challenging end uses and sectors. It also calls for state matching of federal funds for clean hydrogen projects. The bill would also

provide community benefits by ensuring developers work with community-based organizations to “detail a project’s contributions to the community to mitigate its adverse conditions of such community and create opportunities for local businesses, communities, and workers” (James Desantos; CT Green Bank Testimony; March 7, 2023).

David Giordano, HyAxiom, Inc. – Supports the bill, recommending that the state should consider creating a permanent Hydrogen Council of stakeholders from the government, academia, and the energy industry instead of relying on DEEP to create a clean hydrogen strategic plan.

Cary Lynch, Climate and Energy Policy Manager, The Nature Conservancy – Supports the bill, noting hydrogen power should target hard-to-electrify sectors. The Nature Conservancy also mentions that the state should seek out further opportunities to garner federal funding for projects and activities that assist the development of clean hydrogen. They note further that the state should adopt a more stringent definition of ‘clean hydrogen.’ However, contrary to concerns expressed by some Hydrogen Task Force members, this new definition would not prevent Connecticut from obtaining federal funding for clean hydrogen projects.

Dan Onofrio, President, Bridgeport Regional Business Council – Supports the bill as an excellent first step toward developing state regulations on hydrogen and creating a hydrogen plan that grows the state’s clean hydrogen industry. The Bridgeport Regional Business Council recommends that a CT Hydrogen Council is created and that at least one workforce development professional is added to the council to ensure that job training and creation are long-term priorities as the hydrogen industry develops. They also add that the bill presents an opportunity to attract federal funding for clean hydrogen projects that will support the clean hydrogen industry. However, these projects must also benefit environmental justice communities.

Ugur Pasaogullari, Professor of Mechanical Engineering, UConn – Strongly supports the bill because of the ability of clean hydrogen power to reduce emissions and decarbonize otherwise challenging sectors. UConn also supports the proposal to create economic opportunities for people “in the communities where the energy projects are deployed” (Ugur Pasaogullari; UCONN Professor Testimony; March 7, 2023). He also notes that Connecticut should take advantage of the large amounts of federal funding available to states to deploy clean hydrogen projects.

Franklyn Reynolds, President & CEO, UIL Holdings, Inc. [“United Illuminating (UI)”] – Supports the bill because it would encourage the growth and innovation of hydrogen power in Connecticut. In addition, the support includes recommendations “to provide funding to increase community engagement, which would decrease the burden of engagement on communities” (Franklyn Reynolds; UIL Holdings, Inc.; March 7, 2023).

Joel Rinebold, Director, CT Center for Advanced Technology (CCAT) – Supports the bill with modifications that would include a new Connecticut Hydrogen Council as an independent manager of Connecticut’s stakeholders in the administration of an in-state clean hydrogen program. CCAT also recommends the creation of a Connecticut Hydrogen Roadmap “to provide actionable measures to develop and deploy clean energy, increase energy reliability, and create opportunities for advanced technology jobs and economic development” (Joel Rinebold; CT Center for Advanced Technology [CCAT] Testimony; March 7, 2023). These

two modifications would provide a long-term structure in Connecticut to improve clean hydrogen in the state and increase employment in the industry.

NATURE AND SOURCE OF OPPOSITION:

Ben Butterworth, Director of Energy, Climate, & Equity Analysis, Acadia Center –Opposes the bill absent any revisions to the broad definition of tax exemptions for a ‘clean hydrogen project’ defined in Sec. 4 of the bill, which would extend the tax exemptions for solar projects to clean hydrogen projects. The Acadia Center mentions that this definition is too broad and that hydrogen end uses should focus on sectors where electrification is difficult.

Samantha Dynowski, State Director, Sierra Club CT – Opposes the bill as written because of the broad tax exemptions included in Section 4. The opposition also notes that Sec. 1(b) should be revised to specify that ‘clean hydrogen’ (l. 17-18, H.B. 6851) sources only include non-fossil fuel feedstock and that “clean hydrogen end-uses be restricted to hard-to-decarbonize end-uses where electrification is not a viable option” (Samantha Dynowski; Sierra Club CT Testimony; March 7, 2023).

Charles Rothenberger, Climate & Energy Attorney, Save the Sound – Opposes the bill as written. Save the Sound recommends that “the existing bill language providing broad tax exemptions for ‘clean hydrogen projects’ should be limited to clean energy projects serving priority hard-to-decarbonize end uses” (Charles Rothenberger; Save the Sound Testimony; March 7, 2023).

Anne Schmidt, Group Leader, Citizens Climate Education – Opposes the bill, noting relevant environmental effects, such as hydrogen gas leaks. The opposition also comments on the energy required to produce green hydrogen energy. Furthermore, the incentives for clean hydrogen power may divert funds from alternative renewable sources, like wind and solar.

Reported by: Robert Downes

Date: March 14, 2023