



Hydrogen Power Study Task Force: Policy & Workforce Development Working Group Meeting #4

**Hosted by Strategen Consulting
December 15, 2022**

Meeting Logistics

- + **Mute Microphone** – in order to prevent background noise that disturbs the meeting, if you aren't talking, please mute your microphone or phone.
- + **Chat Box** – if you aren't being heard, please use the chat box or raise your hand to ask a question. Please try to limit comments in the chat as these may not be officially captured in the record.
- + **Recording Meeting** – we will record and post the meetings at www.ctgreenbank.com/hydrogentaskforce and you can also access meeting dates and dial-in information through Secretary of State.
- + **State Your Name** – for those talking, please state your name for the record.

Agenda

- + Welcome and Introductions (5 mins)
- + Discussion of Key Findings and Policy Recommendations (50 mins)
- + Overview of Next Steps (5 mins)



Reminder: Strategen's Role

- + The Strategen team will handle meeting logistics including scheduling and recording meeting minutes.
- + The Strategen team will coordinate with Working Group Co-Chairs to develop meeting agendas which will be provided to participants a week before Working Group meetings.
- + The Strategen team will provide technical assistance (including research), where appropriate, for the Working Group.
- + It is expected that this working group will meet on a monthly cadence. Meeting recordings and meeting minutes will be publicly available.

Introductions

Please share your name, title, and organization for the public record



Working Group Statutory Responsibilities

A report will be submitted to the legislature on January 15, 2023. This Working Group's responsibility is to ensure we provide:

- + A review of regulations and legislation needed to guide the development and achievement of hydrogen economies of scale
- + Recommendations for workforce initiatives to prepare the state for hydrogen-fueled energy-related jobs

It should be noted that the efforts of the Hydrogen Power Study Task Force and associated Working Groups are not intended to replace the stakeholder engagement process used to develop and vet updates to state policy; rather, these efforts are intended to surface new ideas for consideration regarding how to develop a clean hydrogen economy in Connecticut.

Key Working Group Findings

- + Connecticut has existing policies intended to enable decarbonization, which provide general ecosystem support hydrogen development
- + Connecticut has policies or programs that specifically reference hydrogen, but there is opportunity for policy to be furthered or strengthened
- + Best practices point toward the importance of developing a definition of clean hydrogen, to achieve its promise as a tool for decarbonization
- + Further actions could help drive the development of an at-scale hydrogen ecosystem, including potential measures that:
 - + Encourage general market development
 - + Support priority hydrogen end-uses
 - + Incorporate community engagement principles in hydrogen development
 - + Provide support for workforce development and labor transitions

Draft Recommendations



Recommendations cover actions that can be taken in Connecticut to support hydrogen deployment and development in the state

Legislature	State Government Agencies	Industry & Academia
<ul style="list-style-type: none"> + Address required changes to statute and tax codes + Create transparency regarding hydrogen development and funding + Consider funding for necessary community engagement and to support federal match 	<ul style="list-style-type: none"> + Conduct further investigation related to hydrogen production, infrastructure, and end uses + Identify and expand relevant incentives or programs + Evaluate additional funding needs + Provide transparency and promote community engagement 	<ul style="list-style-type: none"> + Pursue federal funding opportunities + Identify opportunities to support development of the hydrogen workforce + Advance technological research

Recommendations are still draft! We will continue to refine recommendations based on feedback through the December meetings for this and other Working Groups.

Actions to be taken by the Legislature

+ Community Engagement and Resources

- + Create a transparent source for municipalities, cities, and other local applicants to access resources, such as match funding and/or application guidance.
- + Provide funding to increase community engagement and decrease burden of engagement on communities.
- + Consider amending requirements for community benefit agreements, through Public Act 21-43, to lower the minimum project size from 2 MW to 1 MW.

+ Support for High Value End-Uses

- + Consider appropriating grant funding to support federal match requirements and multi-sector enabling infrastructure, such as public-access fueling stations for trucks, commuter buses, ports, and material handling equipment, etc.
- + Consider tax exemptions for hydrogen vehicles and critical facilities that produce or use clean hydrogen.
- + Evaluate broader policies that would ensure the decarbonization of hard-to-electrify sectors, including aviation, shipping, and industrial processes.

Actions to be taken by State Government Agencies

DEEP

Focus on activities core to energy and environmental planning for the state.

PURA

Address opportunities to incorporate hydrogen into EDC planning

DECD

Support the suite of brownfield funding opportunities.

OWS

Address hydrogen-related workforce development needs.

DEEP's role in energy and environmental planning will be a key enabler for a state-wide vision for clean hydrogen

+ **Hydrogen Production**

- + Conduct further investigation to ultimately establish a definition of clean hydrogen that would be most appropriate for Connecticut.
- + Continue to evaluate the sufficiency of zero-emission electricity sources to meet both electric sector decarbonization goals and hydrogen production targets.
- + Consider accounting mechanisms that encourage hydrogen producers to certify the carbon intensity of produced hydrogen.

+ **Hydrogen End Uses**

- + Consider further investigation and the possibility of focused policy and market development support for clean hydrogen production and use in the highest priority end uses.
- + Consider further investigation into high priority hydrogen end uses and the possibility of coordinating support measures with other hydrogen efforts.
- + Explore market-based approaches to incent reductions in the carbon intensity of fuels.
- + Identify and potentially expand clean transportation incentives to include on-site port handling equipment, harbor crafts, and ocean-going vessels in collaboration with other state and federal agencies.

+ **Ecosystem Engagement**

- + Lead interagency and interstate coordination on hydrogen policy development and funding, potentially including the development of a Connecticut hydrogen roadmap and research strategy.
- + Solicit feedback and guidance from the Connecticut Equity and Environmental Justice Advisory Council (CEEJAC) to advance community impact, environmental justice, and energy equity discussions on hydrogen and to support the development of a framework that outlines both a vision and goals for CT's clean hydrogen policies.
- + Develop a state-wide vision for a clean hydrogen backbone and infrastructure development plan in Connecticut, through consultation and engagement with ecosystem stakeholders.

State government agency action is required to determine how to incorporate hydrogen into appropriate planning venues to coordinate hydrogen funding and workforce development

PURA

- Evaluate the role of stationary fuel cells for critical backup power and peak power generation and identify approaches to incorporate recommendations into appropriate planning venues.
- Consider whether existing renewable energy, flexible and/or interruptible load tariffs could be applied to electrolytic hydrogen production and determine if a specific electrolytic tariff would be required.

DECD

- Evaluate the need for additional funding for Brownfield Loan and Grant programs to help meet the clean energy needs of the state and its subsequent land requirements.

OWS

- Lead coordination between existing entities to establish a comprehensive program for engagement with local experts to understand workforce development needs and potential specific to hydrogen.
- Partner with local universities, community colleges, and trade schools with expertise in hydrogen technologies and relevant skillsets to further advance the development of a skilled hydrogen workforce.

Interagency coordination will be required to address hydrogen infrastructure, safety, and community protection

Infrastructure

DEEP and PURA may wish to consider promoting the use of hydrogen end uses that are currently commercially viable through the existing clean energy programs. Consideration should include how any changes would affect the programs' existing objectives and cost-effectiveness.

DEEP and DECD should continue maintaining the Connecticut Brownfields Inventory as a resource for potential developers to identify prospective project sites.

Permitting and Safety

DEEP should clarify and work with relevant agencies and stakeholders to explore the acceleration of permitting for hydrogen infrastructure.

State agencies should identify appropriate leads to coordinate on hydrogen safety with local and federal organizations to allow for alignment and clear flow on best practices, policy developments, trainings, and certifications.

Community Protection

DEEP and PURA should consider implementing an intervener compensation program to increase community participation in hydrogen-related proceedings.

DEEP and DECD should continue supporting development of clean energy projects on brownfields and projects that have community support and/or have completed community benefits agreements.

Industry and academia will play a key role in developing the hydrogen workforce and supporting ecosystem development

- + UCONN should identify opportunities to support development of the hydrogen workforce and advance research and development in hydrogen electrolyzers and fuel cells, and should identify resources and funding needs to implement
- + Eligible entities should pursue federal funding for manufacturing capabilities for electrolyzers and fuel cells, to further advance development in the state.
- + Regarding hydrogen infrastructure insurance, steps should be taken to ensure clear rules and policies for hydrogen infrastructure to support insurance industry workforce opportunities.

Next Steps



Upcoming Task Force Milestones

Date	Description
Dec. 15 – 20, 2022	Final Working Group Meetings <ul style="list-style-type: none"> • Funding: Dec. 15 from 10:30 am to Noon • Policy & Workforce Development: Dec. 15 from Noon to 1 pm • Infrastructure: Dec 19 from 3 pm to 4 pm • Sources & Uses: Dec 20 from 1 to 2:30 pm
Dec. 16, 2022	Distribution of Draft Final Report for Task Force Review
Dec. 23, 2022	Task Force Feedback Due on Draft Final Report
Jan. 6, 2023	Final Report Text Distributed to the Task Force
Jan. 10, 2023	January Task Force Meeting (Vote out on final report)
Jan. 15, 2023	Report Due to the Legislature

Working Group Meeting Schedule

	September	October	November	December
Funding	9/27 4-5pm	10/26 10:30am-12 pm	11/18 10:30am-12 pm	12/15 10:30am-12:00 pm
Infrastructure	9/28 2-3pm	10/24 2-3pm	11/17 3-4pm	12/19 3-4pm
Policy & Workforce Development	9/26 3-4pm	10/20 12-1pm	11/29 12-1pm	12/15 12-1pm
Sources	9/27 1-2pm	10/25 2-3:30pm	11/17 11am-12pm	12/20 1-2:30pm
Uses	9/27 12-1pm		11/22 12-1pm	

Thank You!

Feel free to reach out with any questions!
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