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# Colorado Hydrogen Network



An initiative of



## Newsletter - December 2020

### Happy Anniversary Colorado Hydrogen Network!

December marks the one-year anniversary of the Colorado Hydrogen Network. The Charter Meeting was held December 6, 2019 and incorporation was granted by the State of Colorado on Christmas Day, 2019. The Charter Meeting was attended by CCIA, CDOT, DoE, NREL, CSU, the Colorado Energy Office, the Regional Air Quality Council, Colorado Division of Oil & Public Safety, and several hydrogen businesses. The plans, mission and structure of the organization were presented, and the attendees unanimously gave their vote of confidence for the three founders to proceed. The founders are Frans Westenbrink, Dr. Bryan Willson and Brian DeBruine. The website was launched at the end of December.

Since founding, CHN has built a large network of organizations and hydrogen-related businesses. We are also well connected and regularly interact with other hydrogen advocacy organizations such as the [Fuel Cell and Hydrogen Energy Association](#), the [California Fuel Cell Partnership](#), the [California Hydrogen Business Council](#), [Energy Independence Now](#), [CTE](#), the [Renewable Hydrogen Alliance](#), the [Green Hydrogen Coalition](#), the [Asia-Pacific Hydrogen Association](#), the [Renewable Hydrogen Fuel Cell Collaborative](#).

CHN participates in the monthly Hydrogen Stakeholder meeting hosted by the DoE [Hydrogen and Fuel Cell Technologies Office](#).

Along with the Green Hydrogen Coalition, CHN founded the Hydrogen Associations' Working Group, which meets monthly to exchange news, updates on initiatives and coordinate actions with the western hydrogen organizations.

We started the [HydrogenNowCast](#) podcast at the end of May. We have listeners on all the continents (except Antarctica) and numerous people throughout the world have responded and connected with CHN.

And lastly, because of our relationship with NREL and with a great deal of help from Shaun Onorato, we were able to acquire Colorado's first Hydrogen Fuel Station.

All this has been made possible by you – the organizations and people that have enthusiastically provided your support. We want to extend to you all our most sincere thank you. It's clear that hydrogen is an idea "whose time has come" and we plan to work harder than ever to make CHN's second year even better than the first.

## Upcoming Events & Announcements

### November Monthly Meeting

All who are interested in hydrogen are encouraged to attend. The November Membership Meeting will take place via Zoom. You may follow the link below for access.



Tuesday, December 15  
3:30 - 5:00 p.m. MDT  
<https://us02web.zoom.us/j/4212771558>  
Passcode: CHN

## Networking & Activities

**Colorado AAA** – Brian was interviewed for an upcoming article in the Colorado AAA magazine "EnCompass". The article talks about Fuel Cell EV's and how the vehicles are well suited for the recreational needs of Colorado drivers with our cold weather, towing of boats, snow mobiles and camping trailers, plus the frequent commuting distances from the metro areas to the mountains. The article will appear in the Jan/Feb 2021 issue of EnCompass magazine.



## Projects and Initiatives

**Hydrogen Fuel Station Deployment** – Work continues on deploying five public Hydrogen Fuel Stations (HFS) in the Denver-Boulder metro area assisted by new CHN Consulting Members Patty Kelley, Buford Barr, and Seth Terry.



As with the Fort Collins HFS, these stations will fuel both passenger and commercial vehicles. We will need to enlist commercial vehicles from the start in order to sell enough hydrogen to generate revenue to pay for the investment in the station.

The first step is to locate available fuel cell trucks. CHN has reached out to members of our Network such as the fuel cell suppliers, the DoE Vehicle Technology Office and FCHEA.ORG. This is leading us to the vehicle integrators who build the vehicles. We can then go to various businesses in Denver who use the type of vehicles available and suggest they acquire fuel cell trucks to be supported by our fuel stations. This is our

strategy to deploy both the hydrogen supply and hydrogen users simultaneously

**Fueling power plants with hydrogen from oil wells** – Proton Technologies adapts old oil wells to produce **zero-carbon** hydrogen. Their process essentially performs Steam Methane Reforming underground, leaving the carbon in the ground indefinitely.



An ideal initial application would be to use this green hydrogen to retrofit existing coal or gas-fired power plants to burn hydrogen instead. Colorado's electric power plants are all near abandoned oil wells. CHN is setting up a meeting with Proton Technologies and the [Platte River Power Authority](#) to discuss the technical and economic feasibility of converting these power plants to hydrogen. Converted power plants could provide base-load electricity or be used to back-up wind and solar, eliminating the need for batteries. This would also keep the electric utilities from having to scrap these valuable assets.

To learn more about Proton Technologies, listen to the [HydrogenNowCast](#) episode #13.



### Podcast Update

To date, we have released 14 episodes of the HydrogenNowCast and the show has achieved over 2,400 downloads worldwide, with listeners on all continents (except Antarctica).

Upcoming Episode 15 features an interview with Frank Zammataro of HydroCosm. HydroCosm generates electricity using wasted energy in water systems.

Please help promote the show by subscribing and giving us a rating in one of these podcast apps:

[Apple Podcasts](#) | [Stitcher](#) | [Spotify](#) | [Google Podcasts](#) | [iHeart Radio](#) | [Amazon Music](#)

## News & Events

**Cleantech Ambassador Award** – Dr. Bryan Willson, CHN's Technology Officer was honored by the Colorado Cleantech Industries Association at their annual Cleantech Awards on December 3<sup>rd</sup> to recognize the time, resources and experience that Bryan has contributed to bringing hydrogen technology to Colorado. CCIA thanks him for his dedication to advancing clean energy research and being a Cleantech Ambassador



**Webinar - Green Hydrogen: A rising Star in the Energy Landscape** – Wednesday December 9, 1:00 PM MST.

Presented by the [Center for Community Energy](#). Register [here](#).

This webinar will address:

- How green hydrogen will be a catalyst to a green economy

- ...from green hydrogen to a fully green economy.
- What are the latest technology developments for large-scale industrialization of green hydrogen, and potential applications for utilities and industries?
  - What are the benefits and challenges of this energy transition?

**Saudi Arabia Sets Its Sights on Hydrogen Export Leadership** - The kingdom plans to generate hydrogen from solar power . . . at a \$5 billion facility in Neom, a futuristic city being built on the Red Sea, starting in 2025.

**Havyard Establishes Company for Hydrogen Power for Ships** - [Havyard's](#) complete hydrogen system for ships will be completed in 2021, and the group is now establishing a separate company to meet market demand for the solution.

**China goes ahead with hydrogen-powered cars** - In a 15-year plan for new-energy vehicles released on Nov. 2, China's State Council said the country will focus on building the fuel-cell supply chain and developing hydrogen-powered trucks and buses.

**Australia to Fast-Track Building Wind and Solar for Hydrogen Production** - Canberra announced that it has awarded "major project status" to the Asian Renewable Energy Hub (AREH). The move will accelerate the development of 15 GW wind and solar power for the production of hydrogen and ammonia for export to the Asia-Pacific region with plans to scale that up to 26 GW, making it the largest of its kind in the world.

## Contact

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Join CHN

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