

IPHE Newsletter



Oct. 2019 - Mar. 2020

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GLOBAL UPDATES

From IPHE members worldwide

BRAZIL

The Brazilian Hydrogen Association held first annual congress focusing on bio- hydrogen

The event, held in November 2019, featured speakers in the hydrogen and fuel cells space including IPHE representative Franklin Chang-Díaz, from Costa Rica, as well as a hydrogen fuel cell bus demonstration. Multiple stakeholders, including the Brazilian Minister on Science and Technology and former NASA astronaut Marcos Pontes, participated in the demonstration and had the opportunity to ride the bus. The event also provided a platform for [ABH2](#) and the [Brazilian Energy Research Office](#) and relevant stakeholders to discuss the potential to incorporate hydrogen in the Brazilian energy mix.



Delegates at the 1st congress of the Brazilian Hydrogen Association, ABH2



CANADA

Hydrogen station plans underway to support Canada's sustainable energy vision

Canada's Hydrogen Technology and Energy Corporation (HTEC) is fueling the drive to hydrogen across the country. HTEC is leading the development of a retail network of hydrogen stations in British Columbia with 3 stations open and 4 more on the way, building a heavy duty Class 8 hydrogen truck fueling station in Edmonton, and operating the first retail hydrogen station in Quebec with plans underway to build 6 more.



CHINA

A recent draft plan for the transportation sector highlights advanced energy vehicle technologies

China's Ministry of Industry and Information Technology released a preliminary plan outlining actions and goals for the transportation sector in the next 15 years. The "[New Energy Vehicle Industry Development Plan \(2021-2035\)](#)" highlights the role of advanced energy vehicle technologies, including hydrogen fuel cell vehicles and trucks, to meet national energy and sustainability goals.



COSTA RICA

Leading in hydrogen production and fuel cell transportation in Central America

The first fleet of four hydrogen fuel cell cars in Latin America is running on Costa Rica's roads as part of their hydrogen transportation ecosystem. The effort is an alliance between Costa Rica's Ad Astra Rocket Company, CR SRL, regional developers of hydrogen infrastructure and Purdy Motor SA, Costa Rica's Toyota distributor. The cars are specifically used as carbon-free resort transportation in Costa Rica's Guanacaste province in the northwest of the [country](#).

EUROPE

Europe's BIG HIT is exploring hydrogen's potential in making isolated territories energy self-sufficient

The project focuses on Building Innovation Green Hydrogen Systems in Isolated Territories and is one of the first of its kind. The concept of using hydrogen to enable an energy-self-sustaining system is being tested in the Orkney Islands. Curtailed energy from tidal and wind turbines is being used to produce 'green' hydrogen from electrolysis, which is then transported across Orkney Islands and used for local transport, heat and power end-uses.



GERMANY

Nine German regions will work together to integrate hydrogen and fuel cells in their energy system

Through support from Germany's Federal Ministry of Transport and Digital Infrastructure, the HyLand programme will demonstrate how various German regions can integrate hydrogen and fuel cell technologies at scale. In the first phase of this effort, nine regions were selected for the development of an integrated concept.





JAPAN

Ministers develop aspirational goals during the [Second Hydrogen Energy Ministerial Meeting \(HEM\)](#).

The event, hosted by Japan's [METI](#) and [NEDO](#), convened ministers and representatives from thirty five nations, regions, organizations, as well as more than 600 participants. Ministers identified specific actions to enable progress in hydrogen and fuel cells, including the [Global Action Agenda](#) that calls for an aspirational goal of “Ten, ten, ten”: “10 million hydrogen powered systems” and “10 thousand hydrogen refueling Stations” in 10 years.



SOUTH KOREA

First hydrogen station opens in central Seoul, Korea

The first hydrogen refueling station opened in September 2019, taking a major step forward in [South Korea](#)'s vision of creating a hydrogen economy. It is the first commercial hydrogen facility in Central Seoul, and the first case of the regulatory sandbox that lifted administrative hurdles. HyNet, a special company, will be in charge of operating the station by May 2021 when the benefits under the regulatory sandbox expire.

NETHERLANDS

Heating Buildings with Hydrogen Gains Momentum in the Netherlands

A pilot project recently begun in the Netherlands, near Rotterdam is testing [the world's first hydrogen-powered domestic boiler system](#). The system was developed under the BDR Thermea group in Italy in partnership with Dutch subsidiary Remeha, which oversees the project. The local network operator supplies hydrogen via natural gas pipeline, feeding the hydrogen boiler installed next to a conventional natural gas boiler for redundancy. The project has the potential to decarbonize heating systems for commercial and residential buildings. More field trials are planned in Great Britain, where 400+ hydrogen boilers are scheduled to be installed over next two years.



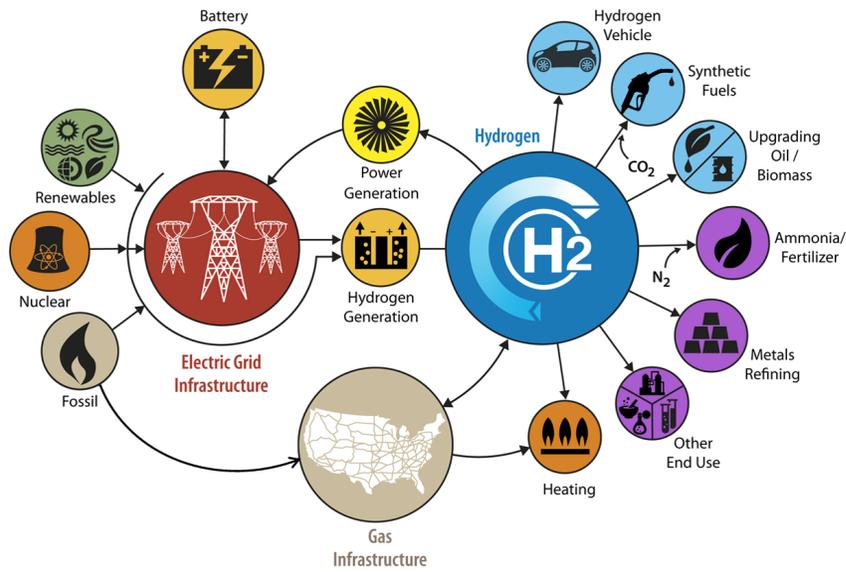
SOUTH AFRICA

South African government joins forces to disseminate information on hydrogen safety and behavior underground and in tunnels

[HySA](#), the government's program to advance hydrogen and fuel cell technologies, kicked off an effort to test how hydrogen can dissipate when used underground and in a tunnel. Underground mining presents an opportunity for hydrogen and fuel cell technologies in [South Africa](#) and gaining knowledge about hydrogen behavior in these settings can help reduce barriers to deploying the technology. As part of this effort HySA joined the Center for Hydrogen Safety to disseminate learnings in this area to other countries worldwide.



An HySA facility is being used to test how hydrogen can dissipate when used underground and in a tunnel.



USA

More than 29 projects kicked off to support the U.S. H2@Scale Vision

The [U.S. Department of Energy](#) announced \$40 million in funding to support 29 projects that will focus on the country's [H2@Scale](#) vision to enable affordable hydrogen production, storage, transport and utilizations across multiple sectors. Three of these projects will demonstrate potential of an integrated production, storage and fueling system in Texas, Illinois, and Florida.

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HIGHLIGHTS

IPHE Events | South Korea | Oct 2019

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IPHE Events in South Korea

IPHE Economy Forum Stimulates Discussion on Hydrogen and Fuel Cell Progress



More than 200 participants, including press, industry, government, and embassy representatives joined the IPHE forum on October 25 in the Korean Parliament Building. IPHE members discussed various topics key to enabling a hydrogen economy, including specific examples of policies and outreach efforts to accelerate deployment of the technology in transportation, energy storage and stationary/backup power.

Yonsei University Students Share Project Findings



The event was an opportunity for students to learn from IPHE members about the various activities in hydrogen and fuel cells happening around the world. It also included nearly 50 students presenting 20 posters on their research projects, including developing new durable membranes among others. IPHE presented awards for the the top three posters.

HIGHLIGHTS

IPHE Events in South Korea

IPHE Members Get up Close to Hydrogen Technology at KIST



Researchers from Korea Institute of Science and Technology's (KIST's) Clean Energy Institute and IPHE delegates walked through various laboratories and discussed research projects in hydrogen storage and technology prototypes.



Information Sharing as a Key Topic during Korea Gas Safety Visit

IPHE delegates toured the Korea Gas Safety test facility for various applications including high pressure vessels. The visit also included a demonstration of their tests of gaseous hydrogen ignition and behavior at scale. Discussions also covered safety incident lessons learned and areas for collaboration.

Updates from IPHE Working Groups

IPHE Ramps Up

Social Media during Hydrogen and Fuel Cell Week

IPHE celebrated hydrogen and fuel cell day and reached our 100th follower on twitter - on October 8! IPHE joined others around the world with a week-long campaign of social media activity highlighting progress and quick facts about our member countries. Please keep your ideas for social media content and for our recently revamped website coming! And don't forget to follow IPHE on [Facebook](#), [Twitter](#) and [LinkedIn](#)



IPHE
@The_IPHE

Following

Happy 2019 Hydrogen and Fuel Cell Day! Worldwide, there are over 300,000 stationary fuel cells offering resilient power and 12,000 fuel cell cars on the road. Global shipments of fuel cell power surpassed 800 MW last year. [#FuelCellsNow](#) [#HydrogenNow](#)

9:01 AM - 8 Oct 2019

3 Retweets 10 Likes



3

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IPHE Joins as Strategic Partner Of the Center for Hydrogen Safety

The [CHS](#) is a global resource to disseminate hydrogen safety information and to enable the safe deployment of hydrogen technologies. As a strategic partner, IPHE will engage with CHS through the IPHE Codes, Standards and Safety Working Group to share valuable lessons learned on safety incidents as well as on the harmonization of codes and standards for various hydrogen applications.



An AIChE Technical Community • A Global Resource On Hydrogen Safety



International Partnership
for Hydrogen and Fuel Cells
in the Economy

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