

Welcome to the October 2022 issue of the H2scan Digest. In this issue we present:

- Did you know...?
- Transformer Monitoring
- Battery Room Safety
- Electrolyzers and Fuel Cells
- Industrial Processes
- Hydrogen Economy

Did you know...?

On October 8th, scientists and engineers across the globe celebrated World Hydrogen Day. The date October 8 was aptly chosen for the atomic weight of hydrogen (1.008). H2scan held its own family-friendly picnic event filled with games, food, and music to celebrate. Check out the team enjoying the day below!



TRANSFORMER MONITORING

H2scan's Julie Feng Discusses DGA Hydrogen Monitoring in Newest Issue of Transformer Technology

Hydrogen is one of the critical and characteristic gases reflecting internal insulation defects of oil-filled equipment. In the most recent issue of Transformer Technology, Business Development Director of H2scan China Julie Feng writes about monitoring technology of dissolved hydrogen in transformer oil. Feng discusses the growth of the Asia Pacific dissolved gas analyzers (DGA) market and how DGA hydrogen monitoring in transformer oil has the advantages of small size, convenient installation, and rapid response to sudden failures. You can read the article [here](#).

Gridscan™ 5000: It Changes Everything about Transformer Monitoring

H2scan's simple solution for monitoring hydrogen in transformers provides an easy way to monitor the real time health of transformers. The H2scan Gridscan™ 5000 Hydrogen Sensor pairs a high-performance ASIC with H2scan's field-proven solid-state hydrogen sensor. This stand-alone sensor system has been designed to provide precision hydrogen measurement at a lower cost for the high-volume OEM or utilities. Learn more about the Gridscan™ 5000 [here](#).



H2scan's Traci Hopkins Answers Questions about DGA

Traci Hopkins, H2scan's Sales Manager for Central and South America, explains the importance of dissolved gas analysis (DGA) in her blog post titled, "[How does Dissolved Gas Analysis improve your transformer's reliability?!](#)" Hopkins delves into the IEEE Guide for the Interpretation of Gases Generated in Mineral Oil-Immersed Transformers to describe how to use DGA for transformer safety and maintenance. Read the article [here](#).

New Webinar en Español - Hydrogen Monitoring in Transformers

H2scan's popular webinar on hydrogen monitoring in transformers was held again, this time in Spanish conducted by our own [Traci Hopkins](#). Register [here](#) to watch a replay of the webinar. If you want to watch a replay of the English-language version, go [here](#).

Upcoming Tradeshows and Conferences

IEEE Concapan 2022

November 9-12, 2022, Panama City, Panama. [Traci Hopkins](#), H2scan's Sales Manager for Central and South America, will be exhibiting at booth no. 66.

Newsbyte

Hurricane power restoration limited by transformer availability

Florida Power & Light, the state's biggest electric utility, says it's making faster progress than anticipated in restoring service in areas battered by Hurricane Ian last week. The recovery has been made easier because more lines are being placed underground, and they've also been using transformers that are hardened for Florida weather. Due to supply chain issues, getting that storm-grade equipment has become harder in the last couple of years. "It used to be a 12-week lead time — it's a 123-week lead time now for a transformer," says Lee County Electric Cooperative (LCEC) Spokeswoman Karen Ryan.

BATTERY ROOM SAFETY

The Revolution

When it comes to battery room safety, best practice standards such as IEEE documents and fire codes state that you must deal with hydrogen in one of two ways: 1) Prove the hydrogen evolution of the battery using IEEE 1635 / ASHRE 21 or 2) have continuous ventilation in the battery room. Vented Lead Acid (VLA) Batteries are always venting hydrogen through the flame arrester at the top of the battery and have increased hydrogen evolution during charge and discharge events. More to come soon on how H2scan can help with hydrogen safety in battery rooms.

On Demand Conference

Virtual Stationary Battery and DC Power System Conference

What started as a pandemic-era way to help others in the battery and DC power system community is back by popular demand. The on-demand version of this virtual event consists of a panel of experts each with decades of experience answering your questions about batteries and DC power systems. Bring your questions and join our own Jeff Donato at this unique event. Sign up to watch the event at this [link](#). You can earn 1.5 PDH credits at the completion of this session.

Newsbyte

GM Looks to Parlay Battery Work into New Energy Business

General Motors (GM) is starting an energy business to sell power-storage units and services to homeowners and commercial clients, an offshoot of the auto maker's battery-development work for electric vehicles. The new division, called GM Energy, will help customers transfer electricity from an EV or battery-storage box to a home or building, to protect against power outages and transfer electricity to the grid during off-peak times.

ELECTROLYZERS AND FUEL CELLS

Safety in Hydrogen Electrolyzers

Safety and hydrogen monitoring in hydrogen electrolyzers, generators, fuel cells and refueling stations are pivotal for the future of the alternative fuel cell industry. For safety reasons, the hydrogen content in an electrolyzer needs to be at 1 hydrogen v/v to ensure the safe operation of stationary electrolyzer and refueling stations. H2scan sensors employ a solid-state hydrogen specific technology based on a palladium alloy that provides continuous and reliable H2 measurements. Read more about the measurement techniques and advantages of H2scan sensors [here](#).

Upcoming Tradeshows and Conferences

European Hydrogen Week

The European Hydrogen Week is the largest annual event dedicated to hydrogen, focusing on the important aspects, developments and technology advances facing the "hydrogen economy." October 24-28, 2022, Brussels Expo Hall. [Mike Nofal](#), [Jordan Ferguson](#), and [Somesh Ganesh](#), our process and safety team, will be exhibiting at stand 64.

Newsbyte

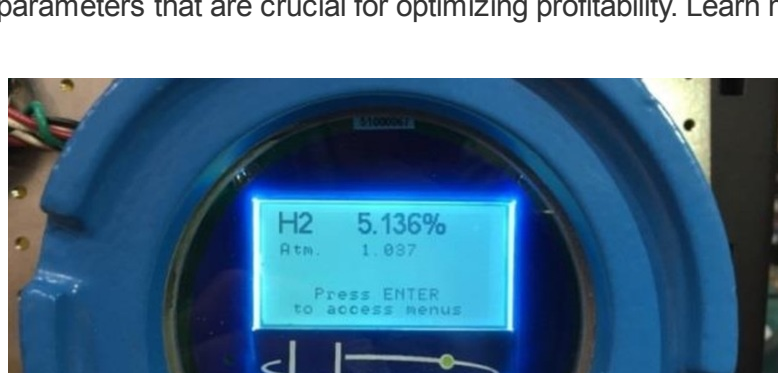
Plug 1MW Electrolyzer Commissioned at World's First Floating Offshore Green Hydrogen Production Site

Plug Power Inc., a leading provider of turnkey hydrogen solutions for the global green hydrogen economy, and Lhyfe, one of the world's pioneers in the production of green and renewable hydrogen, announced the world's first production of hydrogen at sea on a floating platform with a Plug state-of-the-art 1-megawatt electrolyzer on an offshore green hydrogen production site in Saint-Nazaire, France. Plug's electrolyzer will be directly powered by offshore wind turbines.

INDUSTRIAL PROCESSES

Refiners can save millions of dollars with H2scan

Did you know hydrogen monitoring in oil refineries can save \$2 million dollars annually? In a typical refinery, there can be anywhere from 12 to 20 locations where hydrogen measurements are critical. Knowing the exact amount of hydrogen at the points throughout the plant provides a key indication of parameters that are crucial for optimizing profitability. Learn more [here](#).



Upcoming Tradeshows and Conferences

11th Chem, Petrochem & Refining Asset Reliability Conference

This Marcus Evans conference will bring together subject matter experts to share best practices and insight into real-life scenarios on how to overcome the challenge of maintaining reliable assets with finite resources. November 9-10, 2022, Houston, Texas. Our own Alan Ross will host a session titled, "Mastering Asset Management of Electrical Systems Through Culture Change and Process Management." Full agenda can be found [here](#).

HYDROGEN ECONOMY

Newsbyte

Frankfurt-Tokyo in 1.5 Hours: Hydrogen Plane Promises Revolution

Swiss company Destinus is developing a supersonic aircraft that will one day travel at almost 20,000 km/h in the upper layers of the atmosphere, powered by green hydrogen.

