

## Welcome to the August 2021 issue of H2scan Sensor News. In this issue we present:

- Did you know...?
- Clean energy to get billions in bipartisan infrastructure deal
- H2scan hydrogen sensors moving into battery room applications
- Interview with Ruben Marquez, quality assurance lead
- Hydrogen economy news bytes

Thanks for taking a look. Please reach out with any [questions](#).

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### Did you know...?

H2scan's solid state sensor never wears out?

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### Clean Energy to Get Billions in Bipartisan Infrastructure Deal

In a big move for clean energy, the bipartisan infrastructure bill that is making its way through Congress incorporates \$8 billion to fabricate four regional U.S. clean hydrogen hubs.

The priority of these hubs and other provisions in the bill is to expand the efficiency and cost-effectiveness of clean-hydrogen technology. This funding will also be used to increase the reuse and recycling of clean hydrogen technologies.

To achieve these goals, the bill also provides financing through 2026 for new hydrogen research, development and deployment programs at the Department of Energy. The bill additionally amends the Energy Policy Act of 2005 to characterize "clean hydrogen" to include hydrogen created from natural gas with carbon capture, utilization and storage.

It legislates for a national hydrogen system and roadmap and \$9.5b of federal funds to be spent on the industry's development, including a push to bring down the cost of green hydrogen to less than \$2/kg by 2026.

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### H2scan Hydrogen Sensors Moving into Battery Room Applications

Add utility battery room hydrogen monitoring to the list of applications that are well suited and benefit from H2scan's patented autocalibration on its latest generation of product. H2scan's versatile Gen 5 HY-ALERTA™ products detect hydrogen build up from lead-acid batteries. Lead acid batteries generate hydrogen gas when charging. If not detected, hydrogen can reach the flammable level of 4% and lead to an ignitable situation.

In addition to a hydrogen monitor, battery rooms must be properly ventilated to prohibit the build-up of gases. Right now, utilities operate their ventilation fans continuously to ensure a safe battery room environment.

But with the Gen 5 HY-ALERTA™ monitors, utilities have an accurate way to measure the hydrogen in the battery room and thus can turn off those fans when concentrations are low. The sensor sends an alert at 1% hydrogen and an alarm at 2% by volume. The National Fire Protection Association lists the lower explosive level (LEL) of hydrogen, the point at which hydrogen can combust, as 4% by volume.

The HY-ALERTA™ sensor system provides precise hydrogen measurement at a lower cost for the high-volume OEM and will have zero expected maintenance for 10+ years. The elimination of calibrations will save the utility a significant amount of money per year and never have a fear of false alarms. By running the fans only when needed, maintenance to HVAC systems will be reduced which will save on maintenance costs. See more on the HY-ALERTA™ product line [here](#).

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### Interview with Ruben Marquez, H2scan Quality Assurance Lead

#### What is a typical day like for you?

During my typical workday, I am responsible for overseeing activities related to quality in receiving, in-process and shipping. I check in each of the teams and help them with any issues they may be having such as inspecting incoming material, inspecting assemblies, and releasing finished goods ready for shipping. As needed, I also support process engineering, production scheduling, purchasing, process operations, and final order review and approval.

Periodically, I meet with the material review board, participate in process improvement teams, and assist with supplier onboarding. I regularly prepare and provide statistical analysis to monitor process performance, equipment calibration status, suppliers' performance, and haz-gases usage.

Less frequently, you might see me working on maintaining the quality management system by conducting internal, supplier, and surveillance audits, conducting employee training, and writing or updating quality documentation. Every day is different and challenging, but rewarding, because the culture of teamwork at H2scan is focused on continuous improvement and providing the best products and services possible.

#### What excites you about the future of H2scan and / or the hydrogen economy?

Hydrogen energy is the largest renewable energy sector and is exhibiting rapid growth. H2scan sensing technology helps make the promise of a greener future and world possible. The rising demand for high-quality, low-cost hydrogen products across industries means H2scan is positioned to become a key part of the hydrogen economy.

Our commitment to lean culture is helping us meet the challenge of manufacturing and delivering high-quality products on demand, and at the lowest cost possible. These sensors represent highly efficient solutions helping customers meet worldwide demand, so it is exciting to participate in the development and production of new technology and to see the impact it will have on process and transformer applications around the world.

Thanks Ruben!

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### Hydrogen Economy News Bytes

#### Tokyo Olympic flame fuel source contains hydrogen for the first-time

Previous Olympic flames have burned propane, magnesium, gunpowder, resin or olive oil since the first modern cauldron was lit for the Amsterdam Games in 1928. But this year, the flame at Tokyo's National Stadium was sustained in part by hydrogen, the first time the fuel source was used to power an Olympic fire. [Keep reading to learn more.](#)

#### A 57-year-old man in Queens is lucky to be alive after a vault transformer explosion

Transformer explosions are rare, but potentially deadly. Transformer monitoring is extremely important because it helps to find the problems in transformers before explosions happen! [Find out more about this explosion](#) or learn how H2scan can help reduce the risk at [h2scan.com](#).

#### Land Rover unveils hydrogen-powered Defender

Jaguar Land Rover is developing a hydrogen-powered Defender. The vehicle manufacturer confirmed the news as part of its aim to achieve zero tailpipe emissions by 2036, and net zero carbon emissions across its supply chain, products, and operations by 2039. Testing is set to begin in the UK later this year. To learn more about the Defender, [keep reading](#).



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