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Jadoo Power Systems, Inc. Develops Revolutionary Hydrogen Storage Device

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For end users to adopt fuel cell technology, it is imperative that the system fit seamlessly into their current usage regime. With this in mind, the team at Jadoo has developed a complete, market-ready, fuel cell system, focusing not only on the fuel cell “stack,” but on the comprehensive fuel cell **system**, which includes the power converter, the hydrogen storage device, station to refill the storage devices, system safety and all user interfaces.

For decades fuel cell companies worldwide have been designing and advancing fuel cells in hopes of being the first to market with a truly viable system. Massive resources, both monetary and intellectual, have been expended in this effort. As a result, the efficiencies and power capabilities of fuel cells have advanced many-fold. However, compared to the staggering energies committed to fuel cell development, relatively little has been done to advance hydrogen generation and storage devices, an integral part of a portable fuel cell system.

Jadoo will be launching our proprietary integrated fuel cell system, NABII™, which is already in the hands of select end users, at the National Association of Broadcasters Show in Las Vegas, April 17-22. NABII™, fuel cell power for professional video cameras is designed to give these users up to 3 times the runtime and 10 times faster recharge than the most popular “brick” battery currently used by cameramen. In addition, NABII™ offers true “hot swap” capability, the ability to change the fuel storage device without powering down the camera.

Jadoo’s proprietary PEM fuel cell system, NABII™, utilizes hydrogen stored in a metal hydride, allowing for storage of three times the volume of hydrogen than can be held in a standard compressed gas cylinder, as some other portable systems may use. This is where the similarities with Jadoo’s NABII™ system end. Utilizing a proprietary interface for easy connection and disconnection, Jadoo fuel storage devices fully integrate with the full cell power system. In addition, the fuel storage device contains embedded technology allowing for state-of-fill communication between the fuel storage device and fuel cell power system.



Jadoo’s FillPoint™ (refilling station), N-Stor900™ (fuel storage device), and NABII™ (fuel cell power converter)

The automated refill station is also equipped with the same interfaces, enabling communication with the hydride storage system. When the hydride storage system is inserted into the refill station, the station informs the user that the cartridge is ready for refill and prompts the user to begin the process. The user simply presses a button to initiate the refill process. When refill is complete, the refill station sends a “fill complete” signal to the hydride storage system. This communication allows a safe, efficient and smart refill of the hydride storage system. When the hydride storage system is reinserted into the NABII™ fuel cell system, NABII™ recognizes the full cartridge.

System safety has also been fully integrated into the NABII™ fuel cell system, with continuous hydrogen monitoring allowing the system to completely disconnect hydrogen supply if needed.

The embedded technology in Jadoo’s fuel cell power system acts like a human brain, coordinating the entire process and simplifying the complex operations for the user. Jadoo has plans for many other advances on this system, focusing on improved portability, value and features as the market develops. Jadoo’s goal is to provide complete, user-friendly fuel cell power solutions today, that move the world to the “hydrogen economy” of tomorrow.