THEnergy-GenCell Report: Green hydrogen and ammonia are the future of backup power in telecom networks

This new report illustrates why the time has come to replace diesel gensets by leading-edge fuel cells at remote telecom sites such as telecom towers.

Munich, Petah Tikva, January 2023 – Telecom companies are currently facing extremely challenging times. This is due to the war in Ukraine that has affected energy supplies around the world and has led to spiraling energy prices. At the same time, electricity is a key driver for climate change. It is obvious today that carbon taxes and CO2 trading will make fossil fuels more expensive in the future. Telecommunication companies are also rushing to cut their carbon emissions. Many of them have signed significant clean power purchase agreements.

Next on their decarbonization agenda is to directly decarbonize their network infrastructure by integrating renewables and battery energy storage systems. However, this is often not enough to replace diesel gensets completely because longer periods of adverse weather conditions such as low solar irradiation cannot be covered. Many telecom towers that are connected to onsite solar power plants still rely to a large extent on diesel gensets.

This is where hydrogen and fuel cells come into play. GenCell has enhanced alkaline fuel cell technology in a way that it is even better suited for remote stationary applications. The leading-edge system is highly efficient and can rely on industrial instead of medical-grade hydrogen. This is very helpful when hydrogen is used as a fuel that is transported to remote telecom sites. As hydrogen is challenging to store, GenCell has further enhanced their backup power solution by adding an ammonia cracker that efficiently converts ammonia onsite to hydrogen. Now telecom companies can rely on widely available ammonia for powering their remote infrastructure at more competitive fuel prices than diesel. At the same time, GenCell solutions are more robust than diesel generators in withstanding extreme weather conditions that are occurring more and more often due to climate change. These solutions have been tested by Deutsche Telekom, Vodafone, and also by Neyðarlínan ohf in Iceland under extreme weather conditions.

The report makes clear that there are no more excuses for telecom companies. “The technology to ditch dirty diesel at remote telecom sites exists: it is time to act now,” points out one of the authors,

Thomas Hillig, managing director of THEnergy, a consultancy specialized in remote power applications and hydrogen.

Rami Reshef Co-founder and CEO of GenCell adds: “Starting the shift from diesel to fuel cells now will also make telecom companies more credible and position them as progressive in tacking major challenges – not only towards potential customers that are environmentally conscious – but also towards their investors and employees. GenCell is developing totally green and affordable distributed power solutions that can be installed anywhere which are ideal for powering telecom towers, especially in poor and off-grid locations. We invite future-conscious operators to partner with us today and join us on the journey to a completely clean, zero-carbon energy future.”

For more information, please download the report: https://www.th-energy.net/english/platform-hydrogen-applications/reports-and-white-papers/

About THEnergy

THEnergy is a specialized business consultancy that focuses on innovation in the energy sector, such as hydrogen, microgrids, solar-diesel hybrids, and energy storage. During the last nine years, THEnergy has consulted leading multinational utilities, oil and gas companies, and start-ups regarding strategy, due diligence, business intelligence, and marketing. www.th-energy.net

About GenCell Energy

GenCell Energy (TASE: **GNCL)** develops total green power solutions based on reliable, zero-emission alkaline fuel cells, hydrogen and green ammonia-to-energy technologies which deliver uninterrupted power to help the world #SayNoToDiesel and transition to clean energy. The ability to produce not only clean power from GenCell’s fuel cells, but also the green fuel on which the fuel cells run, sets GenCell in a far superior position as a well-to-wheel total green energy solution provider. GenCell delivers resilient, robust and weather-resistant backup power for utilities, telecom, EV charging and other mission-critical applications which have been deployed in 22 countries. Our ammonia-based hydrogen-on-demand solution provides primary power for off-grid and poor-grid sites, as well as for rural electrification. GenCell Energy numbers some 150 employees, including veterans of space and submarine projects. The Company is headquartered in Israel with a worldwide distribution and support network and retains unique intellectual property that includes patents, trade secrets and know-how. http://www.gencellenergy.com/

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