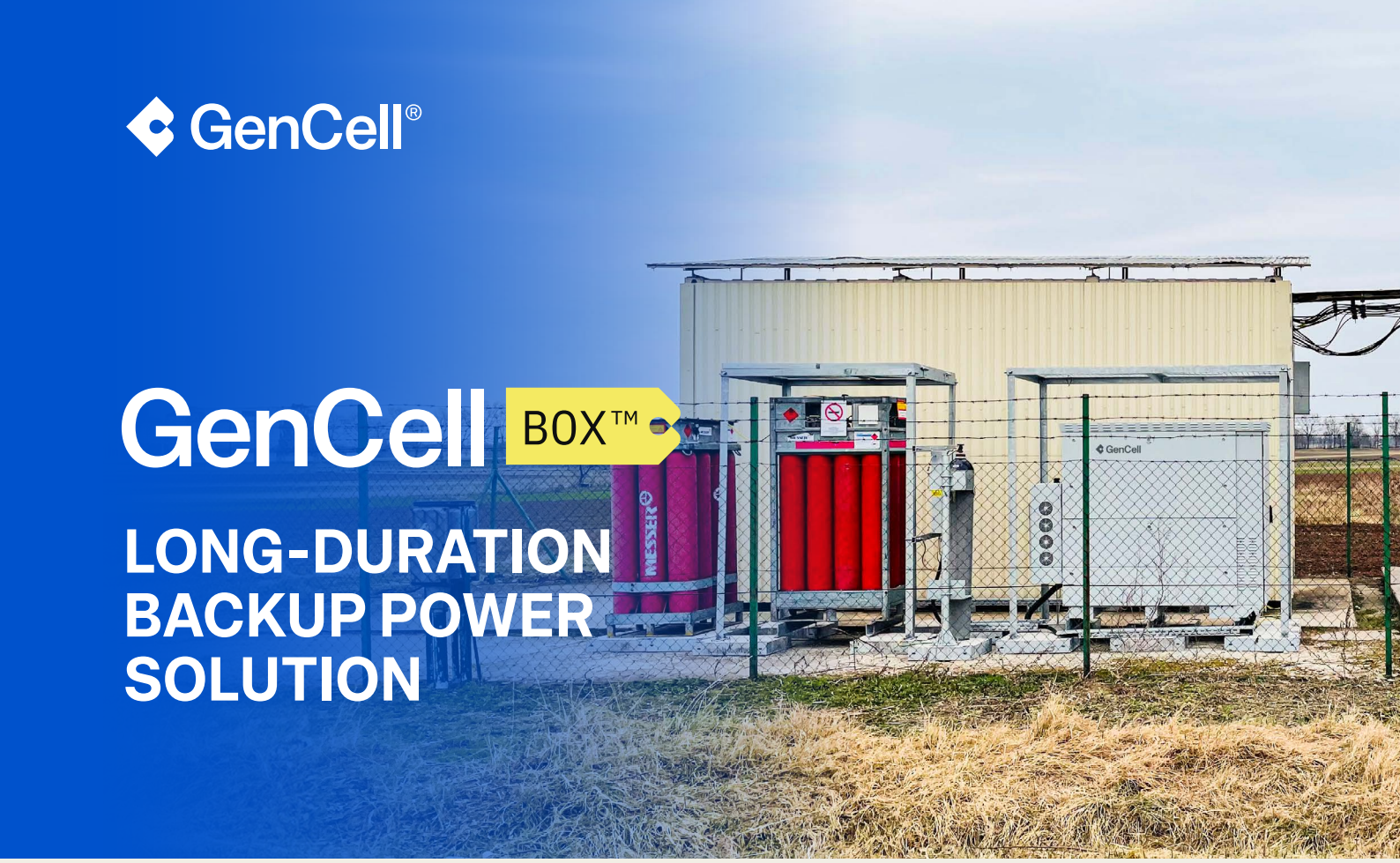
GenCell®

GenCell BOX™

LONG-DURATION BACKUP POWER SOLUTION



GenCell BOX™

COMMUNICATIONS DEPEND on CONTINUOUS POWER to WEATHER STORMS

Ever-more frequent storms, floods and power outages are wreaking havoc, threatening to destroy lives and property, and impacting public safety everywhere. In the past few years our world has experienced multiple climate-related catastrophes and there does not seem to be an end in sight.

These disasters reinforce what we already know – that telecoms and digital connectivity play an indispensable role in today's world. Not only connecting responders during emergencies, but they have become crucial for enabling remote work and learning and e-commerce, which have become the primary methods for businesses, communities and individuals to function. This connectivity is entirely dependent on electricity to power the network equipment and devices we use to stay connected. As systems become only more power-hungry, it becomes even more crucial to transition to clean energy resources. Replacing fossil fuel backup power lets telecom providers satisfy environmentally-conscious consumers while eliminating the root cause of the climate crisis behind the outages for which the backup power is needed.

→ Hydrogen2Power™

THE SOLUTION

GenCell BOX electrochemical generator and gas cabinet for hydrogen cylinders

OUR BENEFITS

- Kicks in immediately & extends duration from hours to days, for as long as fuel is available
- Highly resilient to extreme environmental conditions; withstands temperatures -20°C up to +45°C
- Designed to fit outdoor installations
- Zero carbon emissions, no noise, fumes or vibrations
- Cold start mechanism allows site-idle in sub-zero temperatures with NO conditioning or test runs and starts up in under an hour using minimal battery power.
- Ultra-low maintenance
- Easy plug-and-play installation
- Designed to connect with standard telecom Energy Management System protocols
- Compliant with industry and environmental standards

The GenCell BOX has been specifically designed to meet the requirements of telecom base stations. Producing no noise or CO2 emissions, the solution complies with environmental regulations and renewable energy incentives. Designed for maximum reliability, the GenCell BOX is highly resilient to extreme environmental conditions (temperature, humidity, salinity), requires only semi-annual maintenance or servicing, and is completely green.

In alignment with telecom base station specifications, the GenCell BOX suits outdoor locations, outputs 48VDC and integrates with standard telecom energy management systems. In the event of grid outage, the ultra-reliable BOX kicks in immediately, even in extreme temperatures, to deliver uninterrupted power for continuous telecommunication operations. Providing a potentially unlimited source of up to 5 kW power, the Gencell BOX is supplied with a modular gas cabinet to meet any duration of backup power required: 4 cylinders of hydrogen provide over 8 hours of 5kW power and 20 cylinders provide over 40 hours of 5kW power.

Unlike batteries, the GenCell BOX can run for any duration, for as long as fuel is available, and its disposal involves recycling of metals and waste materials and safe disposal of hazardous materials in compliance with strict standards. Unlike fossil fuel generators, the GenCell BOX has no noise, fumes, CO2 emissions or lengthy startup time. Unlike intermittent renewable sources, the GenCell BOX can run in any conditions with no limitations. Fueled by hydrogen, the alkaline fuel cell-based GenCell BOX delivers uninterrupted operations for critical communication systems.

GENCELL BOX LONG-DURATION BACKUP FOR CRITICAL COMMUNICATIONS

TYPICAL USE CASES

The GenCell BOX™ long-duration backup solution provides backup power for telecom and other critical communications applications:

- Base stations
- Cellular networks
- Internal emergency systems
- Radio and wifi
- Border control stations
- Surveillance operational support
- Remote electronic sensors & alarms
- CCTV remote monitoring

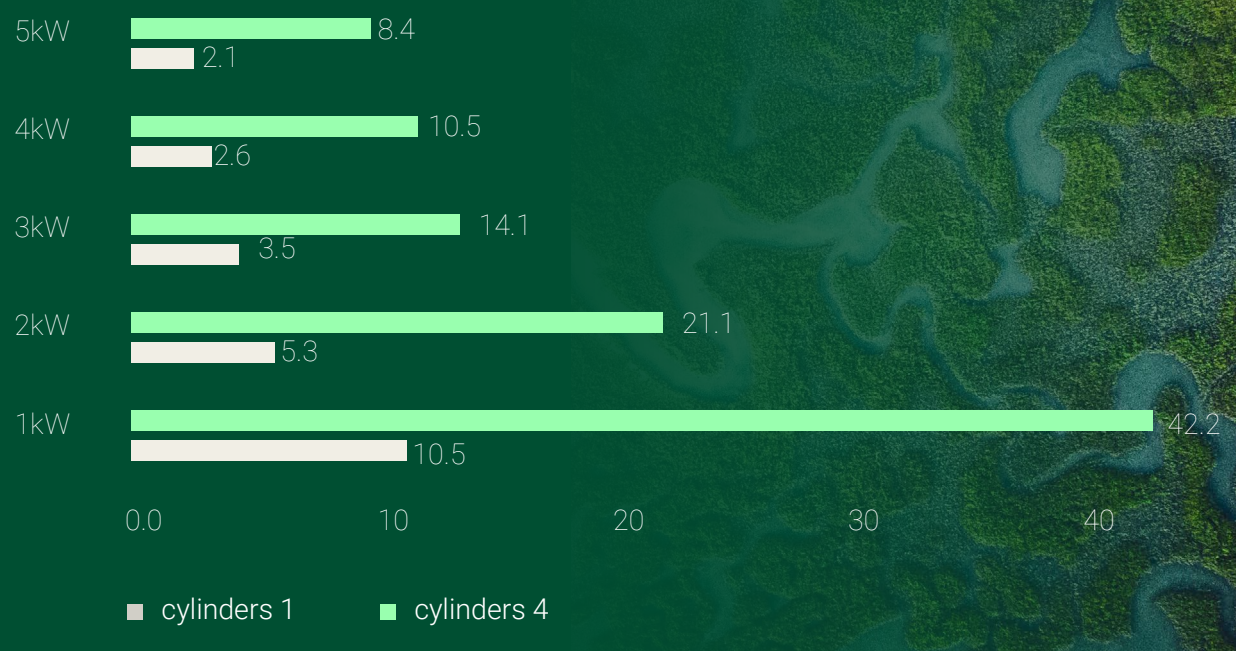
GEMS™ EDGE

— The core component of GEMS, is delivered as an embedded element of every GenCell solution for connectivity, computing and optimal system control and monitoring at the devices' edge.

- ↳ Monitoring and Data Collection
- ↳ System Utilization Tracking
- ↳ Management Software Integration
- ↳ Web-Based Remote Monitoring and Control
- ↳ Hydrogen-Level Calculations

BACKUP CAPACITY (IN HOURS) PROVIDED BY HYDROGEN CYLINDERS

(EACH 50 LITERS - 200 ATM)



TECHNICAL SPECIFICATIONS

Performance	
Rated Power Configurations	5kW
Output Voltage	48 VDC
Emissions	Heat, Water Vapor
Fuel	
Hydrogen	99.95% or higher
Fuel Consumption	≤ 70 g/kWh (at rated power)
Input Pressure	3-5 bar (43-72 psi)
Electrolyte	
Potassium Hydroxide	28-32 % w/v
Control & System Modules And Alarms	
Remote IoT Manager	Available
Remote Start and Shutdown	Available
User Interface	Local and Web Interface

Access Password Protection	User Level and Service Level
Alarm/Event Monitoring & Reporting System	Local Alarm with Email Or SMS
Alarm History Logging	Records, Events and Logs
Configurable Alarms	Available
Physical	
Footprint	L 2.0m x W 0.8m x H 1.63m L 6.56' x W 2.62' x H 5.35'
Sound Pressure	< 65 dB at 1m
Normal Operating Conditions	
Operating Temperature	-20°C up to +45°C (-4°F up to +113°F)
Operating Humidity	10-90%RH, Non-Condensing
Storage Temperature	-20°C up to +55°C (-4 °F up to +131°F)

ABOUT GENCELL

GenCell Inc., a wholly owned U.S.-based subsidiary of GenCell Energy, leverages GenCell's legacy Hydrogen2Power™ technologies, proprietary DERMS software and field experience to further develop the hydrogen-fueled, containerized GenCell EVOX® grid-optional and backup solution to power EV fleets and diverse electrified equipment to overcome the growing power gap.

GenCell Energy (TASE: GNCL), founded in 2011 to adapt revolutionary space fuel cell technologies to serve critical power applications on Earth, is dedicated to transforming the energy landscape by providing reliable, sustainable and climate-resilient power solutions that address the growing global demand for energy security and independence.

With rapidly deployable solutions and the introduction of advanced software such as GenCell GEMS™, GenCell Inc. is well-positioned to drive growth and expand GenCell's presence in key markets across North America and beyond.

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