



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



Ultra-low maintenance



Zero carbon emissions, no noise, fumes or vibrations



Easy plug-and-play installation



Compliant with industry and environmental standards



Designed to connect with standard telecom Energy Management System protocols



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

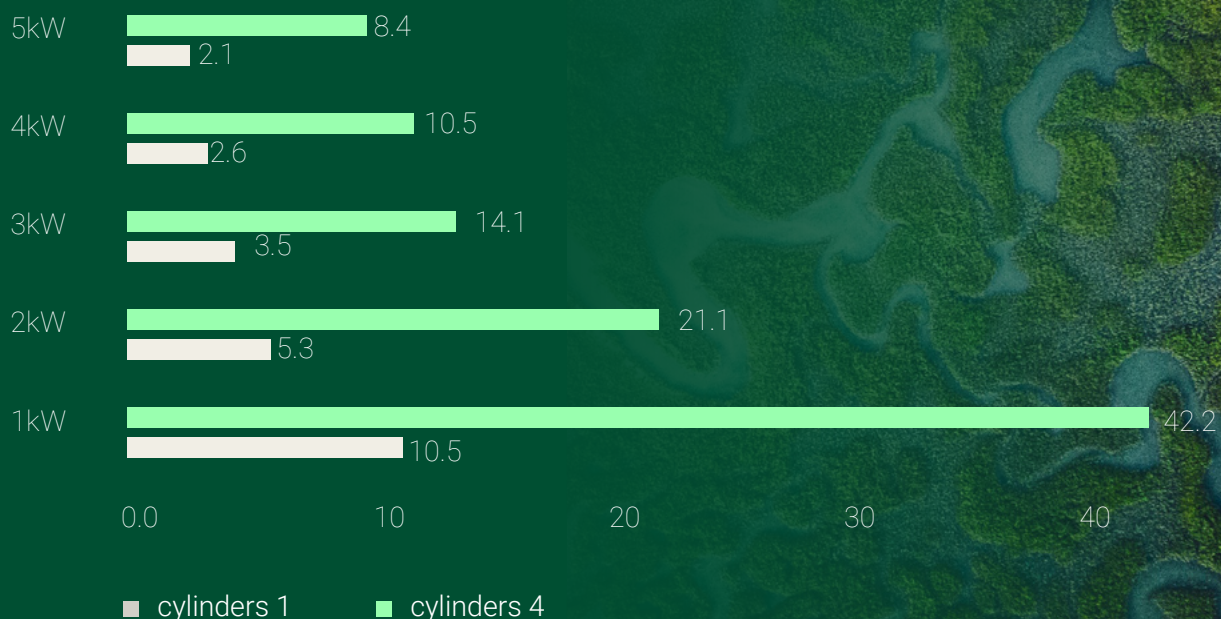
INTELLIGENT IoT EDGE SOFTWARE

— Our embedded software platform connects, configures, monitors and controls GenCell products locally or remotely.

- ↳ Built-in web server to monitor and control all units
- ↳ Automated online reporting to keep you on track
- ↳ Compatibility with common industrial protocols for connectivity to other systems in use
- ↳ Smart security and notifications



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 Energy (TASE: GNCL) develops GreenFSG power solutions based on reliable, zero-emission alkaline fuel cells, Hydrogen2Power™, Ammonia2Power™ and Water2Power™ technologies that 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 23 countries. Going ahead, we are designing an ammonia-based hydrogen-on-demand solution to provide economical primary power for off-grid and poor-grid sites, as well as for rural electrification.

GenCell 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.

→ **CONTACT US**

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