



MICRO  
**GENIUS**™  
by  MISSION CRITICAL  
FACILITIES INTERNATIONAL

# MicroGENIUS

A sustainable microgrid communications shelter that delivers efficient, grid independent energy.

## What is MicroGENIUS?

The MicroGENIUS solution runs on solar power when the sun is shining and utilizes the battery energy storage or hydrogen when the sun is not available. The fuel cell provides an environmentally friendly solution for backup power, eliminating the need for gensets. The MicroGENIUS reduces operational/maintenance expenses, runtime limitations and the environmental challenges associated with gensets and VRLA batteries.

The MicroGENIUS includes:

- Solar PV for primary energy
- AC/DC for network gear & IT
- Fuel Cell for backup power
- Scalable lithium storage batteries

## MicroGENIUS is:



Modular &  
Redeployable



Speed to  
Market



Savings



Repeatable



Zero  
Emissions



Bulletproof  
Reliability

# 10 MicroGENIUS Benefits

## 1. Increased Reliability

No moving parts in the power chain, extremely robust architecture. N+1 cooling configurations available.

## 2. Reduced Maintenance

Since there are no moving parts, there are less things to fail; significantly increasing reliability and reducing maintenance.

## 3. Reduced OpEx

No moving parts means that maintenance expenses are reduced by 90 percent over generators and VRLA batteries. Utilizing solar, lithium batteries, and hydrogen fuel cells we reduce internal truck rolls and other associated expenses responding to outages and component replacement with generators and VRLA. Solar provides a strong reduction in energy expenses over the life of the installation.

## 4. Globally Repeatable

Standard engineering, solution works in all locations globally.

## 5. Rapidly Deployable

Deliver quickly to deploy capacity and harden your infrastructure with a fully integrated solution.

## 6. Sustainable

Zero emissions, zero carbon footprint, completely sustainable solution. Large impact upon ESG Score.

## 7. Life Expectancy

20-30 operational year life on climate/geographic location.

## 8. Flexible

Prepackaged communications shelter solution / micro data center available in multiple capacities with multiple runtime options. On-grid and off-grid solutions available (packaged with high availability long run time MicroGRID solution).

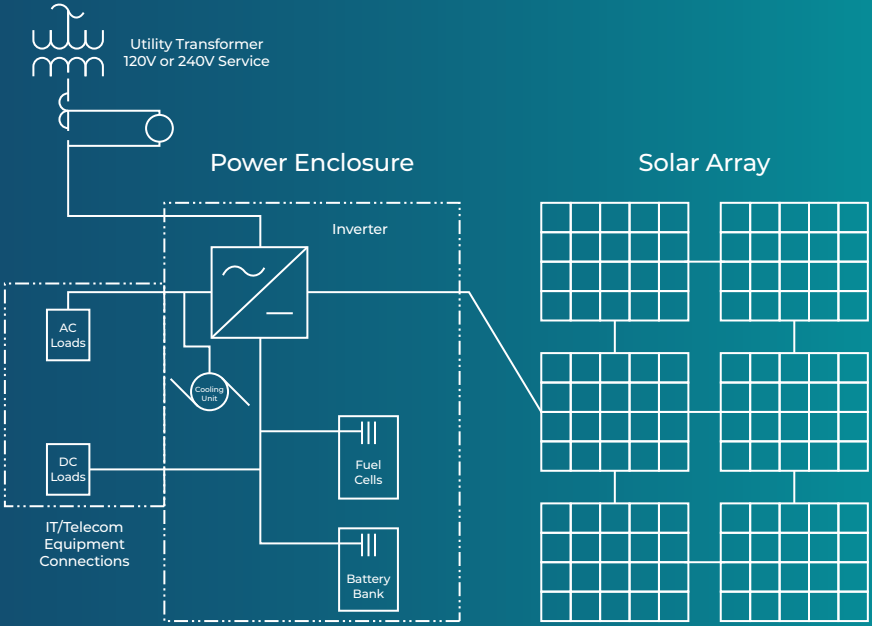
## 9. Resilient

Able to operate in harsh environments / operating conditions from -40 to +150F. Extreme runtimes are available (months or completely grid independent).

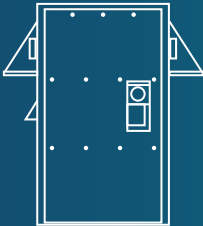
## 10. Tax Benefits

Eligible for substantial tax credits in many parts of the world.

# Sustainable. Efficient. Independent.



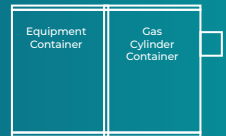
Side Elevation



Front Elevation



Top



# Product Specifications:

Sizes
1kW
2.5kW
5kW
10kW
15kW
30kW
Voltage
AC – 120-240V (50 Hz / 60 Hz)
DC – 48V

Operating Temperatures
- 40F – 150F
Battery Runtime Range
4 hours to 24 hours
Fuel Storage Capacity
1 week to 1 year
UL/CE Rating
CSA on fuel cell
UL on inverter, solar panels and lithium batteries
On and off grid configurations

# Applications:



Wireless



Fiber



Cable TV



Utilities



Railroad



Mining



Military



Public Safety



Traffic Signaling



Oil and Gas

# Let's Start the Conversation



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