A Custom-Branded Solar Power Generator for Verizon’s Room-Ready Applications

As new cell sites move through construction, permanent utility power is not always available when the fiber provider is ready to begin its work. That delay can hold up fiber delivery—and ultimately delay the date when the site can go on air.



Customer	**Verizon**
Application	**Room-ready power for new cell sites under construction**
System	**123-SG-900A10 — developed from the 123-SG-900 to Verizon’s specifications**
Finish	**Custom red-and-white, with Verizon-branded graphics**
Delivered	**Ten units to Arizona, November 2025**

Verizon’s room-ready process helps solve that scheduling problem. When power is available at the site, the fiber provider can be notified that the location is ready. This starts the construction timeline for fiber delivery without requiring the project to wait for permanent utility service.

For this application, we started with our proven 123-SG-900 mobile solar generator and developed the **123-SG-900A10** to Verizon’s specifications. The trailer provides temporary off-grid power during construction, allowing the site to meet the power requirement needed for the fiber company to proceed.

The sequence is simple:

1. The mobile solar generator is delivered to the cell site.
2. It provides power before permanent utility service is installed.
3. The fiber provider is notified that the site is room ready.
4. The fiber construction and delivery timeline begins.
5. When the rest of the site is complete, the fiber connection is already in place.

The benefit to Verizon is a shorter path to activation. Instead of waiting for permanent power before scheduling fiber work, the two parts of the construction process can move forward in parallel. That helps Verizon bring new cell sites on air sooner.

The finished trailers also needed to look consistent with Verizon’s field equipment. We completed each unit with a custom red-and-white finish, branded graphics, and a trailer configuration developed around Verizon’s requirements.

In November 2025, we delivered ten custom-branded **123-SG-900A10** units to Arizona.

This project demonstrates how mobile solar can do more than provide temporary electricity. Used at the right point in the construction process, it can remove a scheduling bottleneck, coordinate contractors more effectively, and help critical communications infrastructure enter service sooner.

123-SG-900A10

Solar Generator

123esolar.com/123-SG-900A10

2.88 kW of DC power on a compact canopy: two panels, 9.6 kWh, no engine.



A fixed solar canopy over a compact single-axle trailer: 48 V DC power the moment it is parked.

OVERVIEW

123-SG-900A10 is the simplest way to put 48 V DC power where there is none: two solar panels mounted as a fixed canopy over the battery and controls, on a compact single-axle trailer. There is nothing to unfold and nothing to aim — park it, lower the jacks and connect the load.

The two 490 W panels form a 0.98 kW array that harvests 4.2 kWh on an average day, and below 0.18 kW the sun carries the load indefinitely. That is the territory of monitoring equipment, gateways, sensors and low-power radios: loads that must never go dark and should never need a fuel run.

Output is 48 V DC at up to 60 A, 2.88 kW continuous, set by the charge controller, feeding DC equipment directly with no inverter losses. The 9.6 kWh sealed gel lead-acid bank carries 27 hours at 0.18 kW with no sun at all, and 10 hours at 0.48 kW, with 4.8 kWh usable at the standard 50% reserve and 6.72 kWh at the 30% setting.

Choose it over the three-panel 123-SG-1A10 where the load is lighter and a fast, fixed setup matters more than extra harvest.

Every 123eSolar system is SMART enabled: cloud IoT monitoring and control from your phone or desktop, so the site is watched and managed without a trip to it.

FEATURES AND BENEFITS

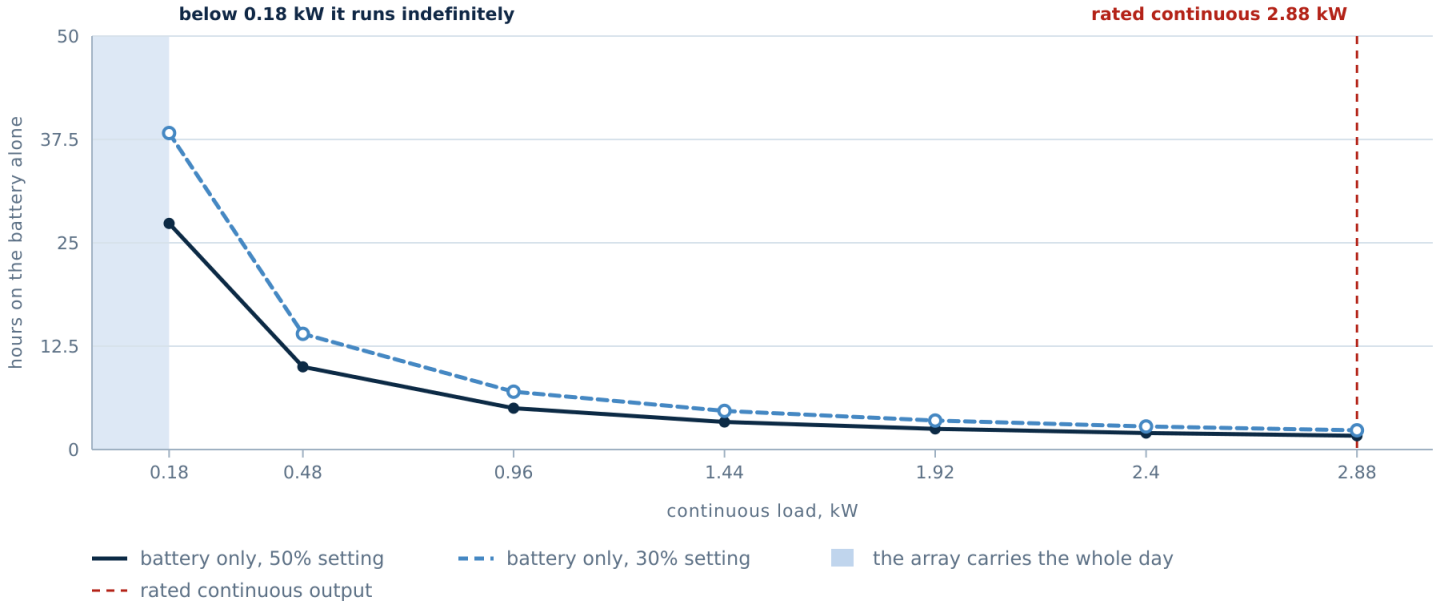
- **Fixed two-panel canopy, 0.98 kW** — Setup is park, lower the jacks, connect the load.
- **48 V DC output, 60 A** — More of the harvest reaches the load.
- **9.6 kWh sealed gel lead-acid bank** — Low-draw monitoring runs unattended.
- **SMART cloud IoT monitoring and control** — The site is watched and managed without a trip to it.

KEY SPECIFICATIONS

POWER	
Rated continuous output	**2.88 kW**
DC output voltage	**48 V**
DC output current	**60 A**
Maximum discharge	**5.88 kW**
ENERGY STORAGE	
Battery technology	**Sealed gel lead-acid**
Arrays installed	**1**
Total stored energy	**9.6 kWh**
Usable stored energy at 50%	**4.8 kWh**
Usable stored energy at 30%	**6.72 kWh**
Silent runtime at 1.44 kW	**3.3 hours**
SOLAR	
Array rated power	**0.98 kW**
Solar panels	**2 x 490 W**
Daily solar production	**4.2 kWh/day**
Maximum PV input	**3120 W**
Load covered by solar alone	**0.18 kW**
MECHANICAL AND SITE	
Trailer	**1-axle, towable**

PERFORMANCE ACROSS THE LOAD RANGE

How long the battery carries the load on its own. Below 0.18 kW the array carries the whole day and the machine runs indefinitely. Above it, these are the hours the bank lasts with no sun and nothing charging, at the standard 50% setting and at the 30% setting.



LOAD, CONTINUOUS	BATTERY ONLY	DAILY DRAW	AFTER SOLAR	DAYS OF AUTONOMY
0.18 kW · solar break-even	**27.34 h**	**4.2 kWh**	**covered**	**indefinite**
0.48 kW	10 h	11.5 kWh	7.3 kWh	0.66 days
0.96 kW	5 h	23 kWh	18.8 kWh	0.25 days
1.44 kW	3.33 h	34.6 kWh	30.3 kWh	0.16 days
1.92 kW	2.5 h	46.1 kWh	41.9 kWh	0.11 days
2.4 kW	2 h	57.6 kWh	53.4 kWh	0.09 days
2.88 kW	1.67 h	69.1 kWh	64.9 kWh	0.07 days

Every load runs continuously and the day is 24 hours: daily draw is the load × 24 h. Solar is a daily energy offset, not an instantaneous power match.