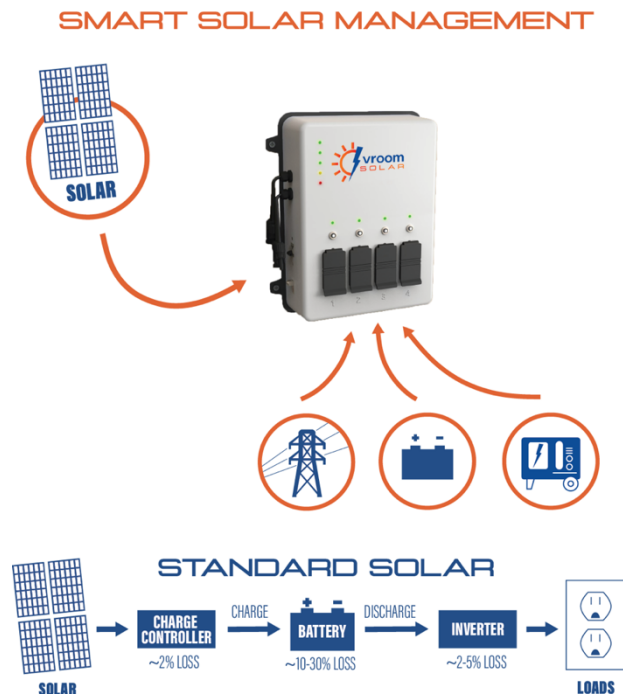




## What is Smart Solar Management?

Vroom Solar is changing the way solar is perceived. Today when people think about solar, they think it *has to be* paired with batteries or the grid to operate. Vroom Solar is proving that is not true with a new **Smart Solar Management (SSM)** system. With Vroom Solar's VS3000 Control Center and **Smart Solar Management** system, *neither a battery nor a grid attachment is required*, but can be added as an *optional* backup power source.

**Smart Solar Management** is a fully integrated, fully automated power management system that delivers AC output power to the end-user's microgrid in the *most efficient and accurate way possible*, and manages the end-user's **Input Power Source** and **Load Management Priority** choices:



### Input Power Source

The **SSM** series of internal devices and proprietary software manages the Vroom Solar VS 3000's selection of the microgrid input power source based on availability and efficiency. When uninterrupted AC power is required, the **SSM** system manages it by using an alternate power source (if connected) *only when necessary*, and in the most efficient way possible.

- **Solar-Direct as Primary Energy Source:** We refer to the VS3000 as a “solar-centric” power station; it uses solar-direct power as its *primary source* because it is clean, renewable, sustainable energy that is available almost anywhere. The

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VS3000 is up to **98% efficient** in converting sunlight to usable AC power – no battery or grid needed to produce power instantly, making it the *most efficient* technology available on the market today. To ensure the system is as efficient as possible, **SSM** will always default to solar-direct as its primary power source.

- **Choice of Alternate Power (AC input) options:** A fully integrated Automatic Transfer Switch (ATS) allows the end-user's choice of an *optional* battery, generator, or even the grid to power the Vroom Solar AC outlets if solar energy is not enough to sustain loads connected (or at night). This is when the **Smart Solar Management** system truly shines. When available solar energy wanes, outlets are automatically and instantly switched from solar-direct power to alternate power (if available), with outlet (4) being the first to switch. As solar energy becomes available again, alternate power is immediately turned off and solar-direct power automatically resumes. Reset is not required.

### **Load Management Priority**

Our solar-direct, **Smart Solar Management** system manages energy influxes through our patent-pending load management technology, which provides the capability of managing multiple connected loads based on the *end-user's priority*. AC power is distributed through (4) fused receptacles (standard 110-volt outlets, each with an integrated 15-amp, resettable fuse), each having an internal priority level assigned. The end-user plugs in loads based on self-selected priority: *outlet (1) has the highest priority*, followed by outlets (2) through (4) in that order. Like an automatic transmission, power is cycled through the outlets, based on available input power and load draw. If an alternate energy source is not used and solar-direct is the only power source, each outlet will turn off, based on its priority level, as solar energy wanes.

And if an alternate power source is attached, a simple color-coded light system tells the end-user when an outlet is running on solar and when it's switched to an AC input backup source. Each outlet is protected by a single, main circuit breaker for the AC output and is equipped with a 3-color LED that changes colors to identify its current power source as: Solar Direct, Alternate Power, or No Power.

### **Industry-First, "Plug Into the Sun... Anywhere" Flexibility and Value**

Vroom Solar's **Smart Solar Management (SSM)** system is the end-user's assurance that their Input Power Source and Load Management Priority selections are being managed and optimized at all times, with no permitting, no hardwiring, no electrician, no programming, no moving parts, and no maintenance required.

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