

switch

storage solutions



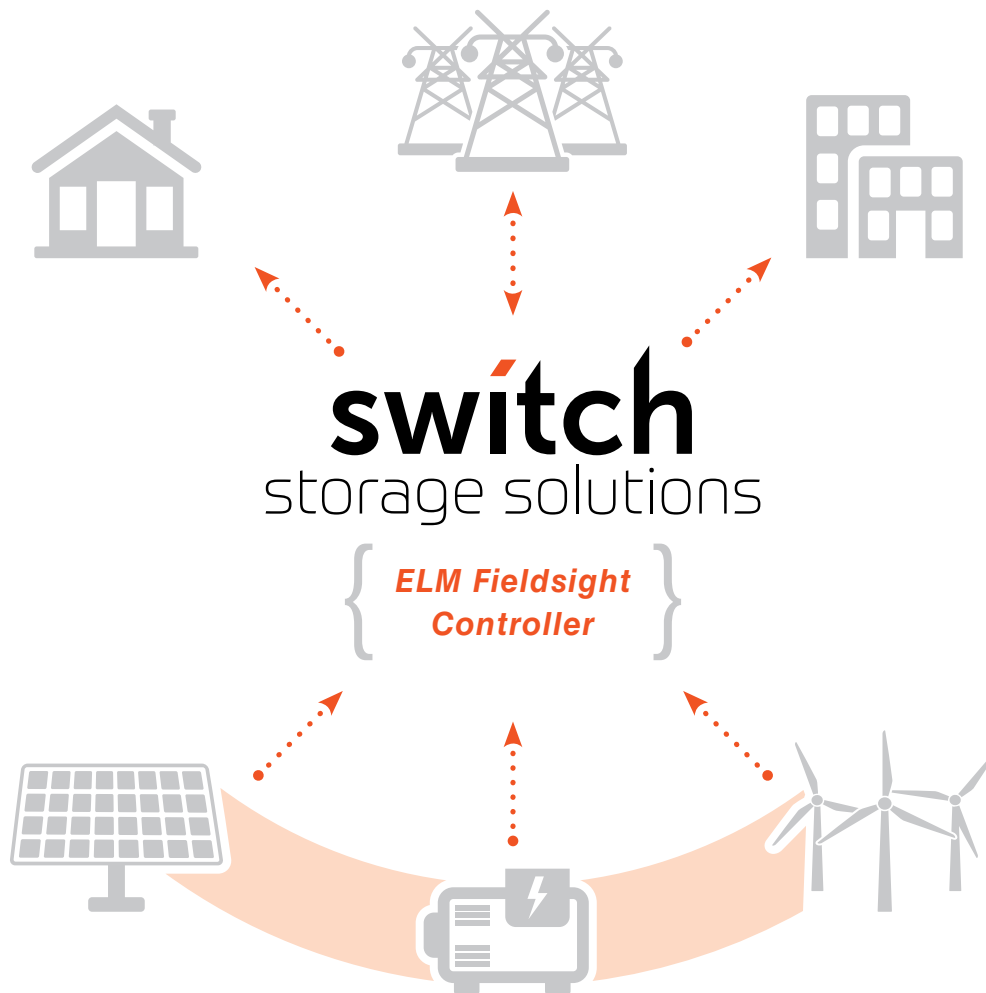
THE SWITCH SOLUTION

A “microgrid” is a group of localized electricity sources and a control system that operate in unison to power a home or small business. Microgrid systems operate autonomously either in tandem with the centralized grid or they can form a microgrid in the event of the loss of grid power. In places where no utility grid is present, a Microgrid can operate in a stand-alone or “islanded” mode.

In recent years we have witnessed an unprecedented rise in natural disasters and extreme weather events such as hurricanes, flooding, earthquakes, and wildfires throughout the world. Many of these events have led to extended power outages as crews struggled to rebuild the aging utility infrastructure. When one considers such risk, and our reliance on electricity for everyday life, it is no wonder that businesses and homeowners are securing their electricity future by installing microgrids. Microgrids are now more affordable and reliable than ever thanks to low cost solar energy, batteries, smart appliances, and advances in control software. In addition to price declines in the components that make up a *Switch Microgrid*, The Switch system is a more efficient and reliable microgrid solution.

Historically microgrid systems for homes and small businesses have been assembled and installed as separate components in the field; complicating engineering, permitting, and installation, resulting in complex and unique configurations that are difficult to manage and service.

The *Switch Microgrid* was developed to standardize Energy Storage Systems in order to save consumers and contractor’s time and money through every step of the process.



The Switch Microgrid is assembled to the highest standards in a UL 508A shop. It is shipped as a self-contained unit and can be installed outdoors or indoors.

ELM FIELD SIGHT™ CONTROLLER

ELM Energy's *FieldSight Microgrid Controller* uses powerful, best in class computing hardware paired with sophisticated control and communication interfaces to enable the operator to efficiently monitor and control their microgrid assets from a single portal.

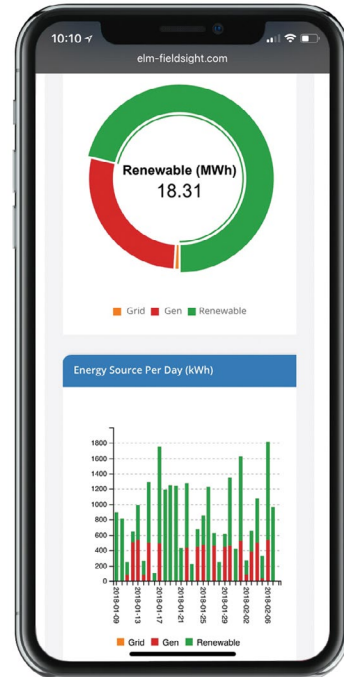


Key Features

Easily created "Islanded" MicroGrids when the grid is down or when there is no grid available in order to maintain a consistent power source

Autonomous solar and gas generator optimization and balancing

Automatically maximize the use of On-Site renewables to maximize energy cost savings



THE SWITCH MICROGRID

A complete turnkey solution from design to permitting, installation, testing, and O & M.

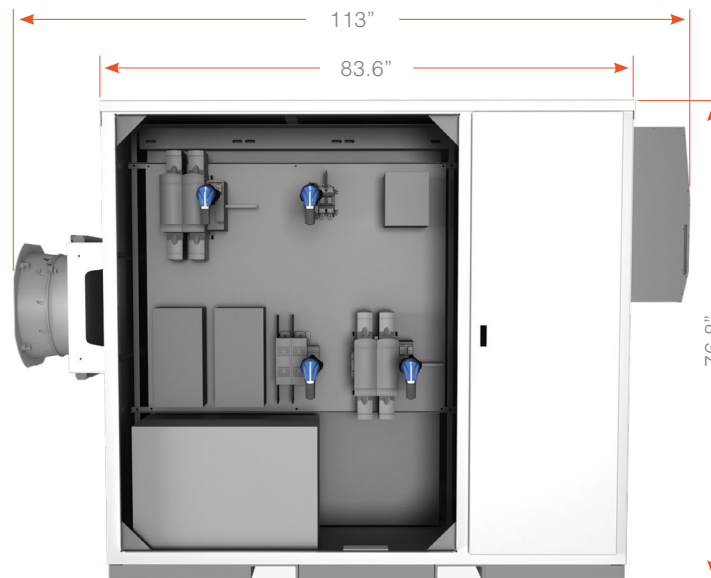
**Factory Assembled
Switch Microgrid**

**NEMA 4 Enclosure
with 1,000 Hour Salt
Spray Powder Coating**

**Pre-Engineered
Battery Size Options
(70 – 500+ kWh)**

**Systems Controlled
by ELM Fieldsight**

**Built to UL 9540
Standard (stationary)**



**Thermal Management
System Optimizes
Battery Performance**

**Safety Labels
Pre-Installed**



**3M™ Novec™
Fire Suppression**

THE SWITCH MICROGRID IS A COMPLETE TURNKEY SOLUTION

	Switch Microgrid <i>(factory assembled)</i>	Standard Microgrid <i>(assembled at site)</i>
Assembled in UL 508A Shop	✓	Assembled in the field
Pre-Wired Microgrid	✓	Wired in the field
Microgrid Pre-Tested	✓	Testing only after assembled in the field
Backup Load Panel Needed	✓ Whole house/building backup available up to 500+ kWh	Separate load panel necessary for small battery systems
Thermal Management for Optimal Battery Performance	✓	✗
Code Compliant Pre-Labeling	✓	Need to be acquired and placed per code requirements
Microgrid Installation Guide	✓	✗
O & M Guide	✓	✗
Built to UL 9540 Standard	✓	✗
Outdoor or Indoor Rating	✓	Without enclosure, must be assembled indoors
Li Ion Batteries Isolated in Enclosure Separated from Living Spaces	✓	Not contained in an enclosure
NEMA 4 Enclosure Rating with 1,000 kWh Hour Salt Spray Powder Coating	✓	Not contained in an Enclosure
Fire Suppression System for Large Battery	✓	✗

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