## A Spectrum of

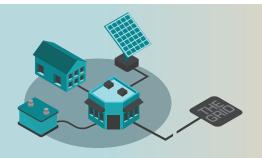
## MICROGRIDS

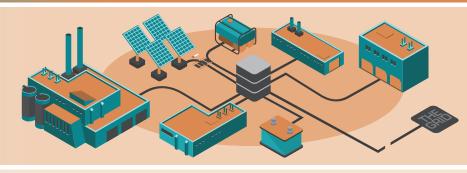
**BASIC MICROGRID** 

## **CLASSIFYING BASIC VERSUS ADVANCED SYSTEMS**

While some microgrids can be as straightforward as solar + energy storage systems, advanced microgrids require experienced integrators to make powerful systems reliable and easy to use. Knowing the differences between basic and advanced microgrids is helpful when considering your specific needs.

## **ADVANCED MICROGRID**





Islanding





Able to island from the grid and reconnect to it.



Able to island from the grid and reconnect to it

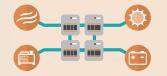
Capable of avoiding power disruption while transitioning between grid-connected and island modes

Generation Sources



Includes 1-2 generation sources

Supported by common backup sources, such as a diesel generator or solar + energy



Includes 3 or more generation sources

Supported by a variety of sources, such as solar, wind turbines, energy storage, and diesel or natural gas generators, integrated together by microgrid controls

**Controls** 



Has simple controls. such as inverters or other devices limited to turning generation sources on and off



Performs a narrow range of operations, such as switching between grid and battery power



Can control complex scenarios, such as managing switchgear and loads in addition to generation sources



Seamless contingency handling, such as riding through sudden equipment disruption



Performs a variety of use cases based on operator preferences, such as economic optimization and storm preparation

Scale







Serves smaller loads, such as a few buildings in a remote town









Serves complex power user campuses, such as industrial plants, universities, and military bases



S&C has unparalleled expertise in successful microgrid implementation. Let S&C help evaluate your power-related challenges so we can recommend a complete, effective solution.

**CONTACT US »** sandc.com/microgrids