About PowerSecure

PowerSecure is a market-leading distributed energy resource technology innovator

PowerSecure's team develops proprietary hardware technologies and integrated software solutions to enable advanced microgrid applications

In addition, PowerSecure offers energy efficiency services to optimize the energy load of its customer facilities

PowerSecure's customer teams enable a full lifecycle business model, beginning with system concept and design, leading to development and implementation, and finally system performance management and economic value optimization

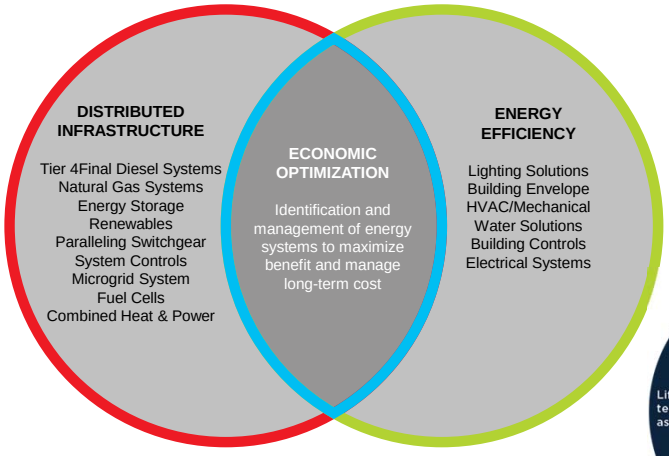
Over its 15-year history, PowerSecure has gained 85%* of the U.S. market share for microgrid deployments

* Greentech Media

MS1

Where PowerSecure Meets Economic Optimization

Creating an Efficient, Resilient, Reliable and Sustainable Supply of Power



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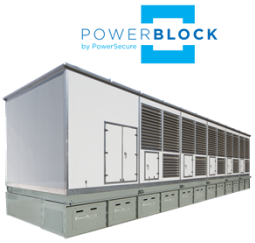
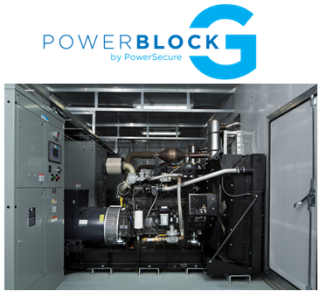
Enabling Technologies





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Slide 3

MS1 Once the first slide is created, this one can be repositioned as how PowerSecure works with customers
Mei Shibata, 9/4/2019

Advanced Microgrid – Large Tech Campus

PowerSecure integrated the most advanced microgrid

PowerSecure, as an integrated solutions provider, designs, builds, owns and operates microgrids

Benefits of a Microgrid

- Improved Resiliency and Redundancy
- Energy Flexibility
- Power Quality
- Economically Optimized
- Maximizes Utilization

21 MW Connected Load

Onsite Generation	Onsite Energy Management	Additional Services	Utility Interaction
Solar - 16 MW	Battery Storage 4MWH (12MW for 90 Sec)	Building Automation and Lighting Control Systems	Two 10 MW bi-directional utility feeds
Fuel Cell – 4 MW	Custom switchgear technology to manage bi-directional load of entire facility	1000 electric vehicle chargers	
Backup Generation – 6 MW			

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The Virtual Power Plant

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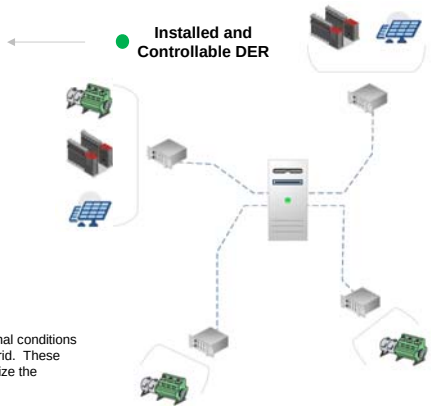

Virtual Power Plant (VPP) - A centralized processing server analyzes regional conditions and distributes commands to local DERs to maximize reliability of the local grid. These commands are tailored to the local onsite generation and designed to maximize the utilization of these resources.

Example 1: Regional forecasting and analysis indicates a recent dispatch signal is best served by diesel generators. BESSs should not be used to preserve battery state of health and/or offset any lack of PV production during this time.

Example 2: Regional conditions indicate a high likelihood of a brownout. Microgrids in the area are commanded to pre-emptively isolate until conditions improve.

A **VPP** has the ability to operate like a centralized generating facility but with a much faster dynamic load response. If absolutely necessary, base generation can be quickly taken offline without fear of damaging vital generating equipment

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