

Heliomotion Microgrid

Overview

In a microgrid setup, electricity producers and consumers operate synchronized to the utility grid, but can also disconnect to “island mode” and function autonomously from the utility grid.



Solar power

A group of Heliomotion units run connected to the microgrid using grid-tied inverters. The power produced reduces the need to purchase electricity and any surplus is sold to the grid. During a power outage the units continue supplying power to the microgrid.

Backup system

Solar stations paired with an array of lithium-ion batteries provide backup power during a power outage. The stations keep the batteries charged and are ready to automatically switch over to battery power in case of a power failure on the utility grid. Each station can supply up to 5000 watt power and up to 9 units can work in parallel.



Power consumers

The buildings within the microgrid are supplied uninterrupted power through the solar stations which in turn are connected to the utility grid. Battery and inverter capacity can be shared between all buildings, providing the greatest amount of backup power.

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System overview

A microgrid can be set up for one or more households. Each household in a microgrid would typically be paired with 1x Heliomotion PV-6M, 1x Solar station PIP-5048MG, and 2x Lithium-ion batteries (2.5 kWh). Battery quantity is rounded up so their voltage becomes a multiple of 48V. There is no upper limit on the amount of solar power or battery capacity that can be connected to the microgrid. The maximum 1-phase output of multiple solar stations connected in parallel is 40000 watt.

