

**A Grid Made  
of  
Microgrids**



**RPSi**

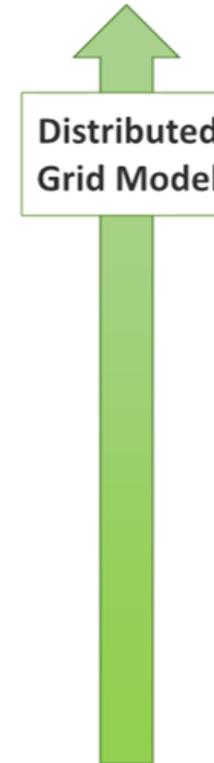
# What is a Microgrid?

- Local energy generation
- Islandable
- Self-contained



# The Paradigm Shift

- A highly distributed inverter-based grid
- Lack of generator-based inertia
- Decarbonization and Electrification



**Inverter-Based Grid**  
100,000,000 Generators, Storage, Active Loads  
1 sec optimizations at each level

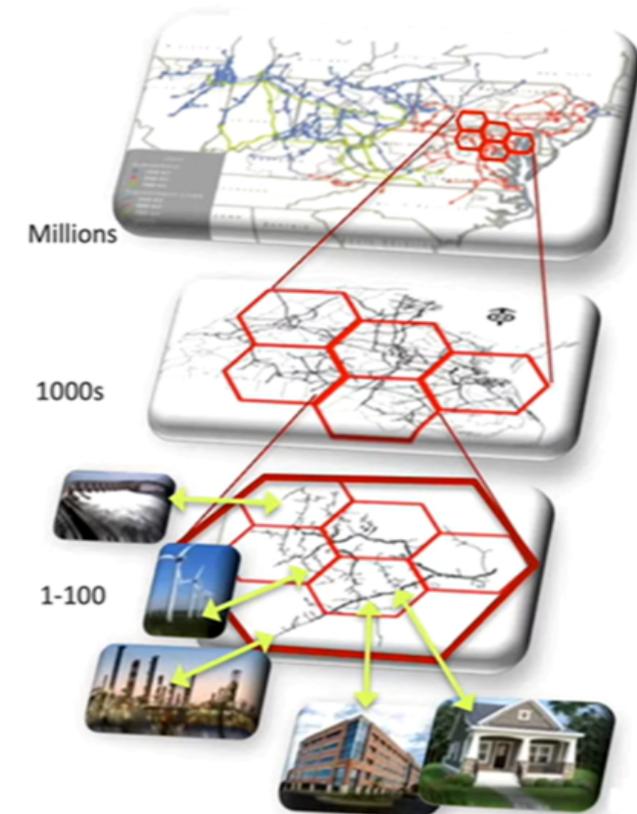


Figure courtesy of U.S. National Renewable Energy Lab

# Developing Infrastructure

## Key Findings of the Tracking SDG7: The Energy Progress Report

2010

1.2 billion people without access to electricity



Latest Data

759 million people without access to electricity (2019)

Globally, over a billion people lack reliable access to electricity.

Microgrid technology can limit the affects of climate change and help end energy poverty.



# Decarbonize and Electrify

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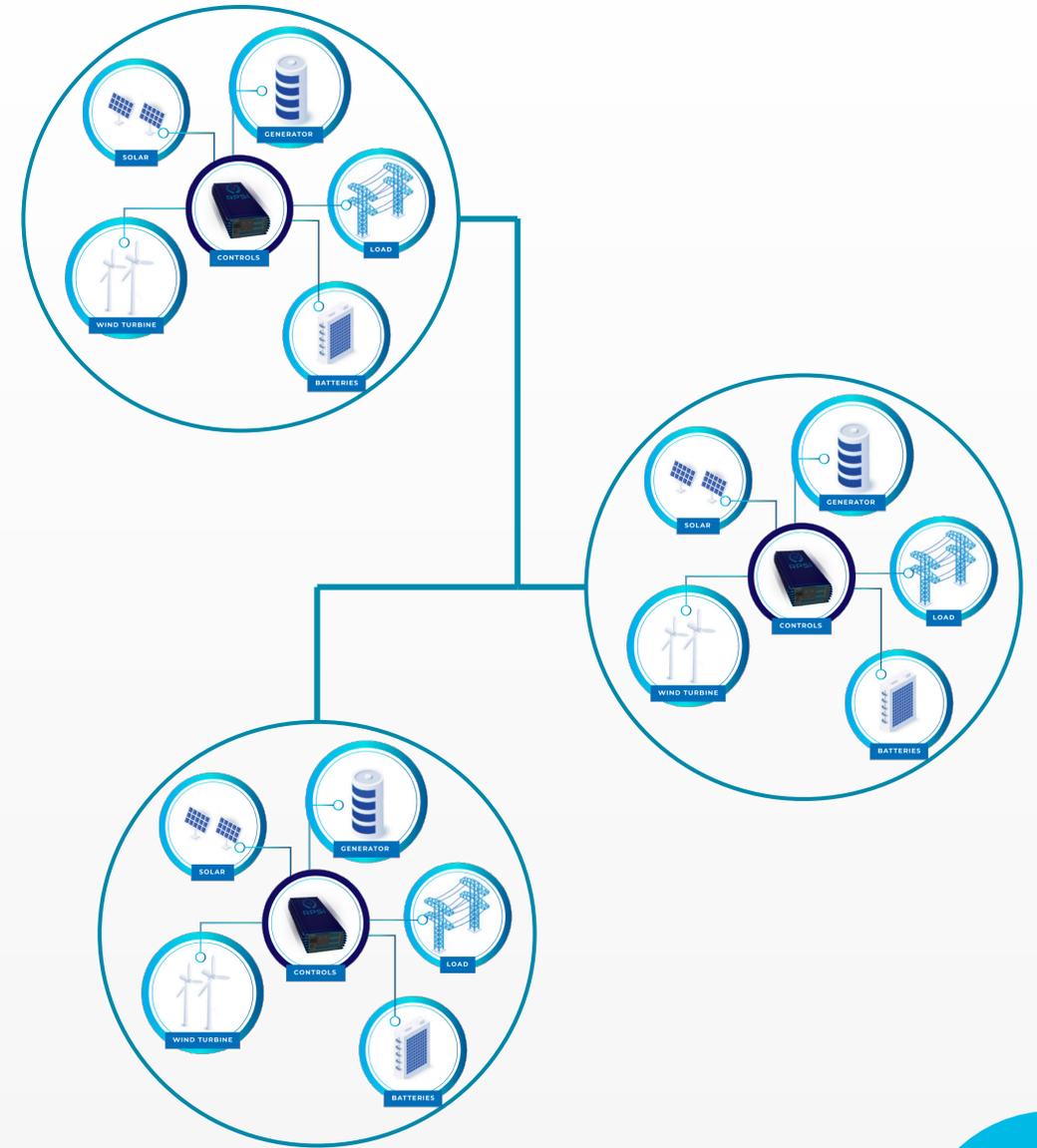
Public policy requirements and private sector demands for decarbonized electricity continue to accelerate.

Microgrids are vital for rapid electrification and stable integration of clean-energy-based resources.

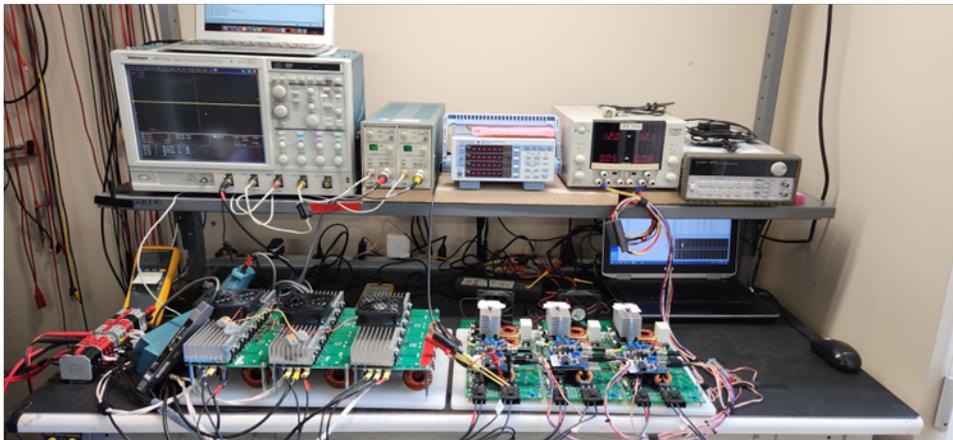
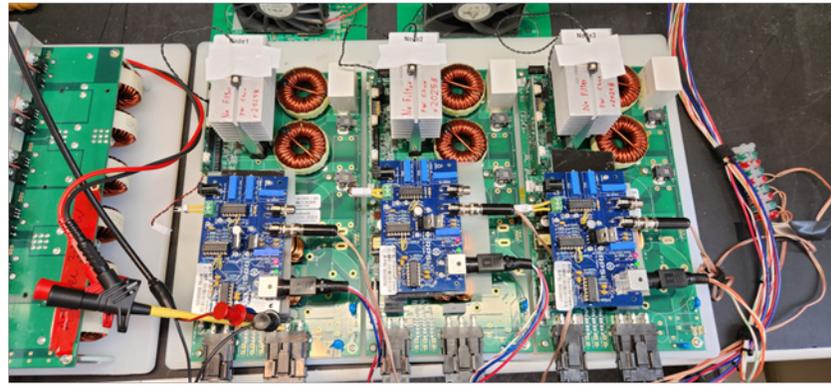
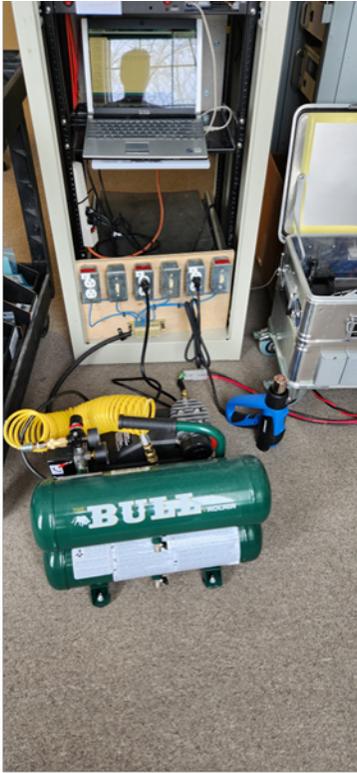
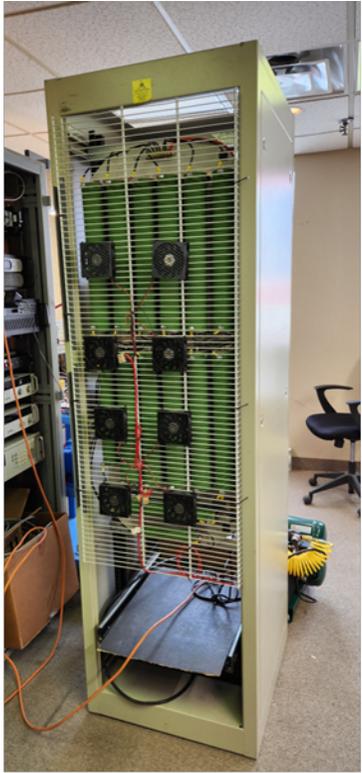
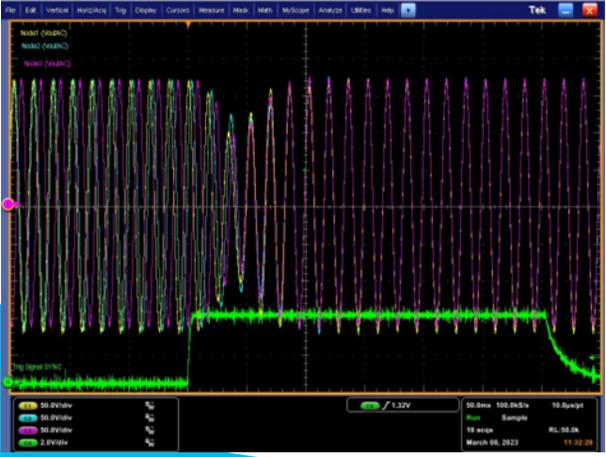
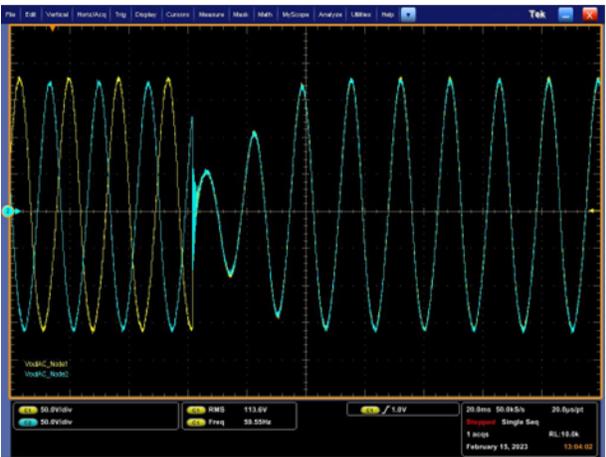
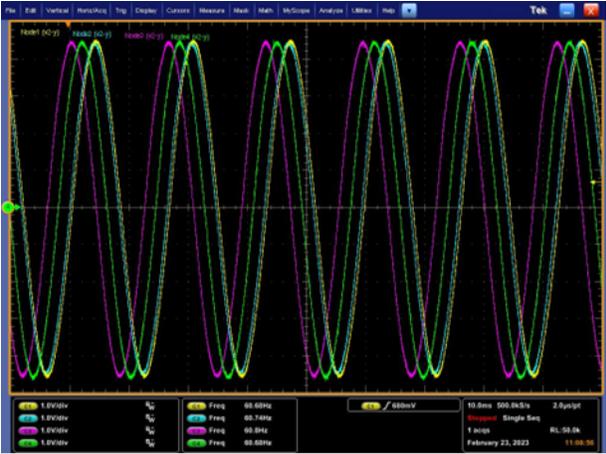


# Microgrid Swarms

- Cooperation between multiple microgrids
- Local energy generation (with inertia)
- Increased stability, resiliency and security.







An aerial photograph of a lakeside community. The image shows several houses with dark roofs and light-colored walls, interspersed with lush green trees. In the foreground, a dark body of water is visible, with several boats docked at a pier. The overall scene is peaceful and scenic.

# **Demonstrating Community Energy Resilience**

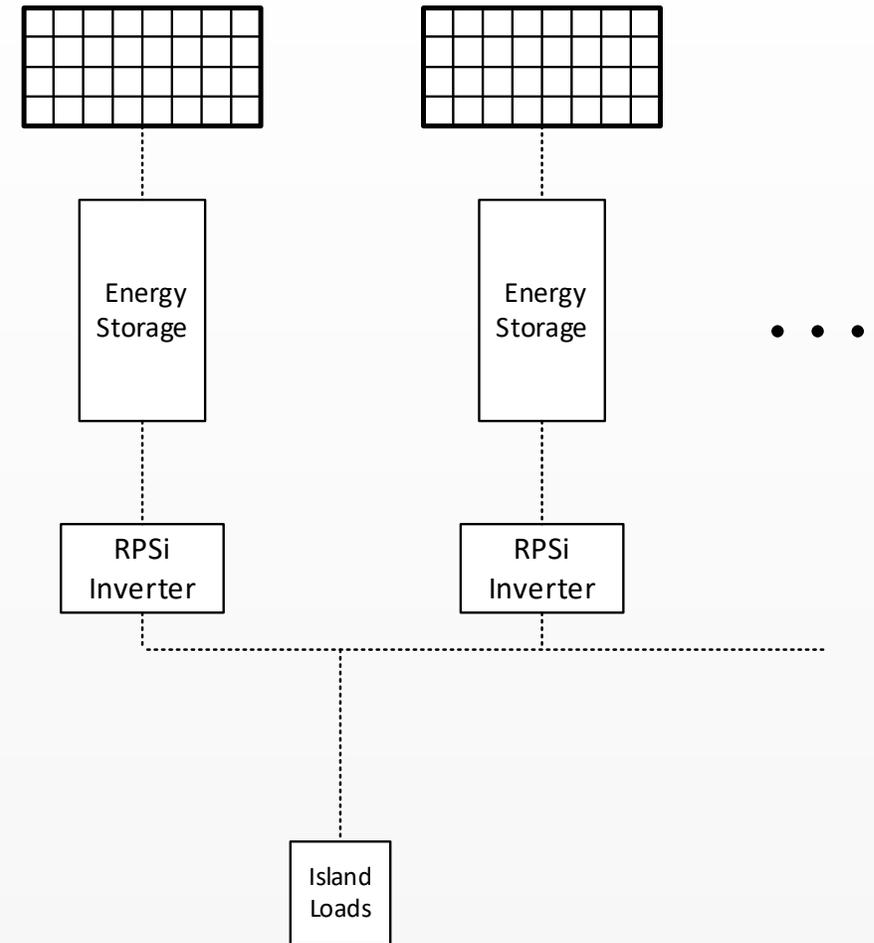
# The Project

The project will generally consist of:

- Installing 200kW solar
- Installing 20 energy storage modules
- Installing 20 new RPSi inverters

The project will provide:

- An opportunity to test 20 aggregated nanogrids





# THANK YOU



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