Resilient Photovoltaic Systems

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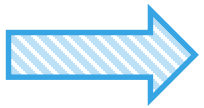
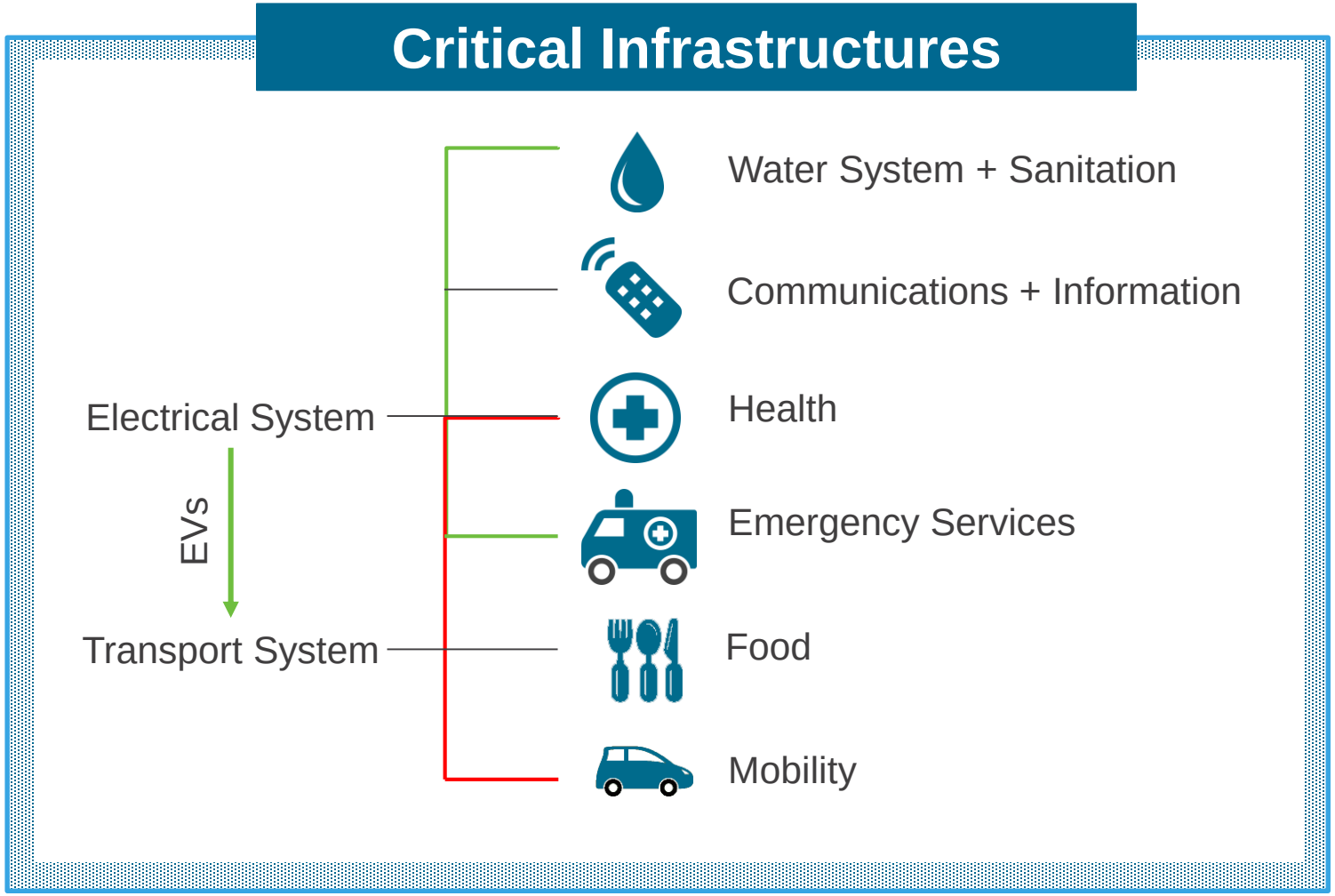
What is Resilience?

re•sil•ience

noun

1. the ability of a system to survive large-scale, complex disruption

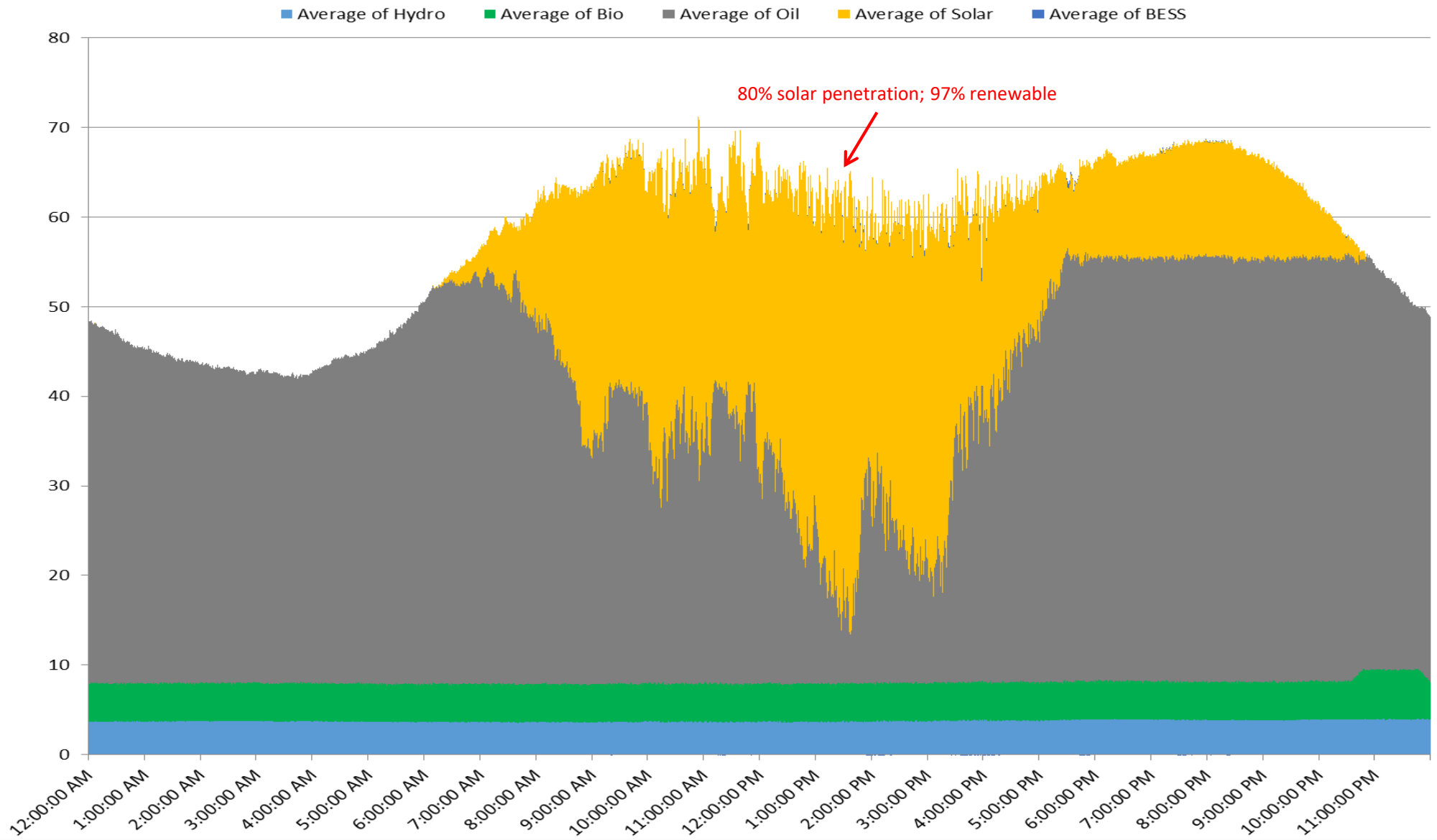




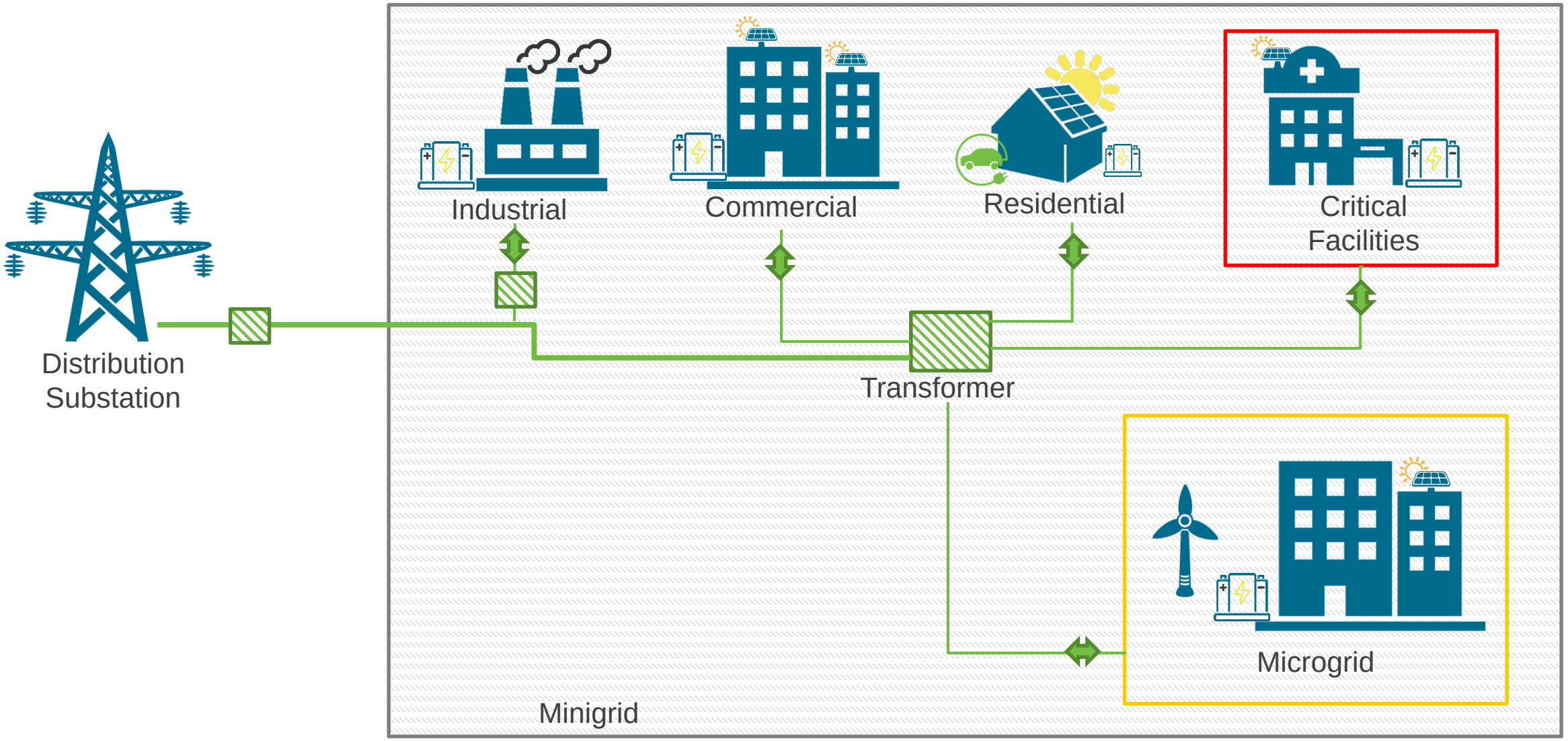
How Can Renewables Improve Resilience?

- Local, not dependent on ports
- Siting and hardening
- Transmission architecture matters
- Distributed with grid modernization
- Electrification of transportation

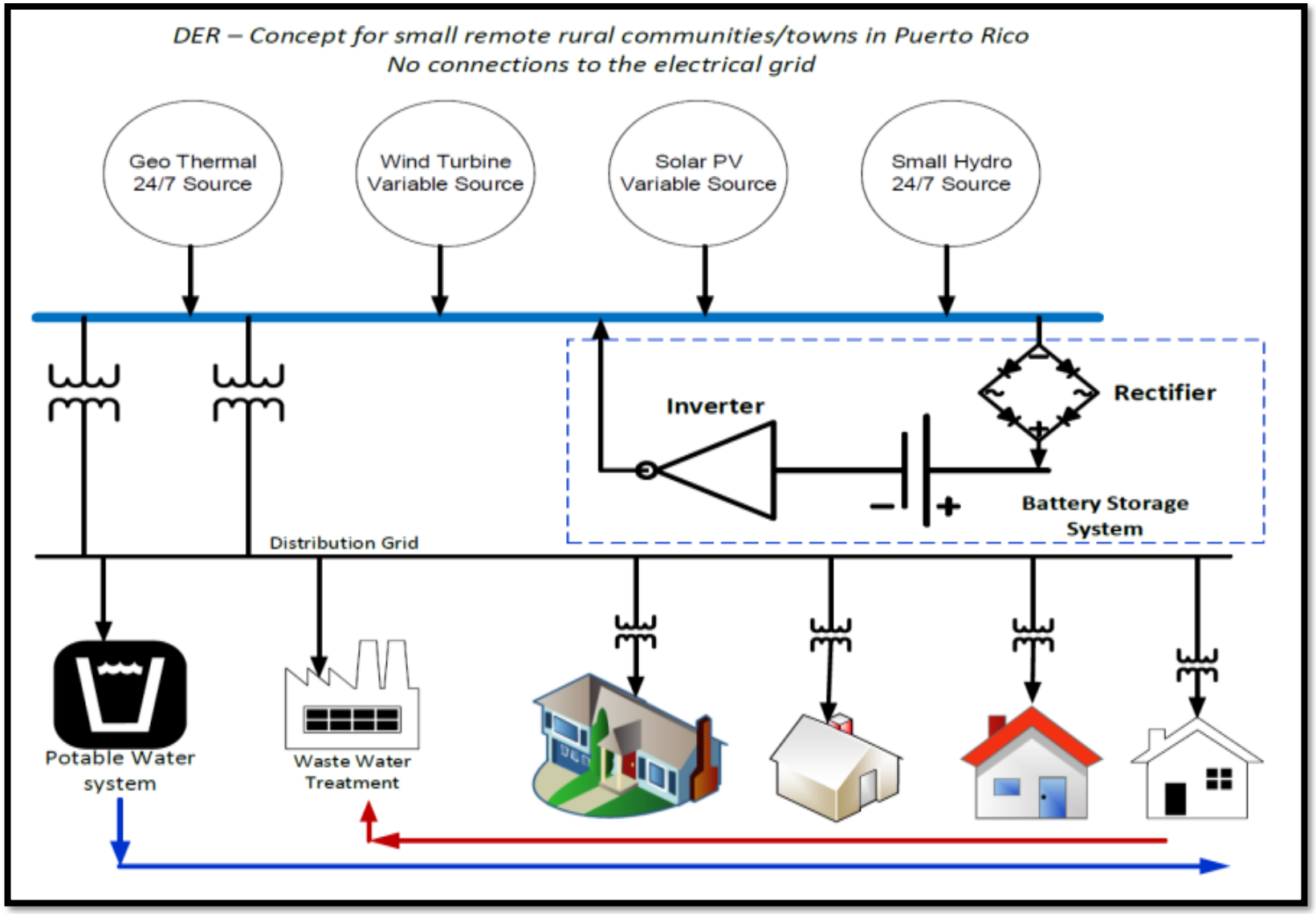
Kaua‘i: 97% Renewable Power During the Day



Distributed, Renewable & Resilient

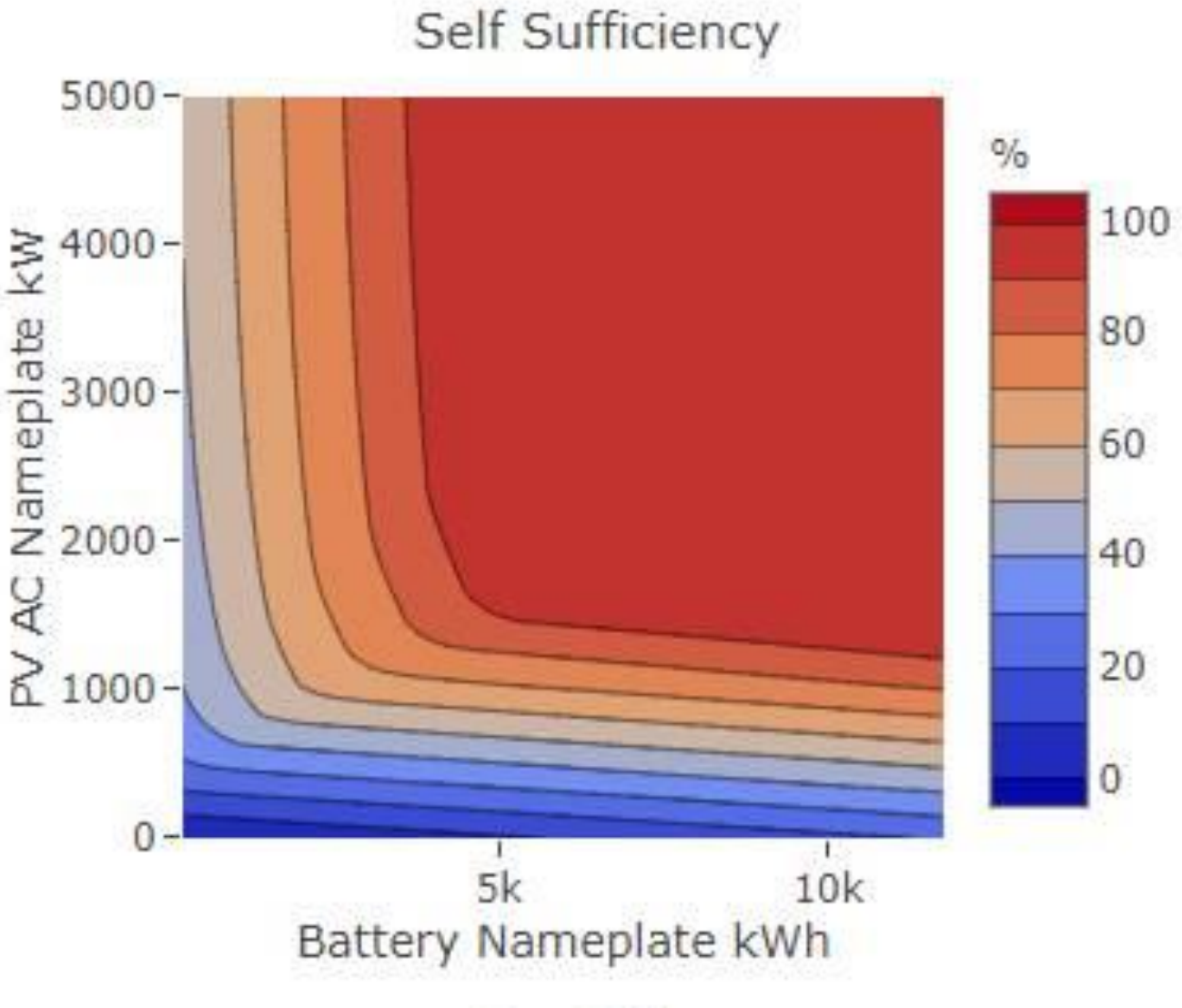


Distributed Utilities for Remote Villages



PV and Battery Microgrids

- 85% Solar and 15% generator
- For peak load of 0.6 MW, 1.5 MW PV and 4 Mwh storage covered the demand
- At larger scales, 5-6 hours of storage appears to suffice for reliability



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