

Community Microgrids with Wire-Free Power Transfer Across Distributed Energy Resources and Batteries (Tiami Networks)

Microgrids are vital but not cost-effective today
community microgrids - \$2.1 million/MW

Significant costs due to electrical transmission line
installation between DERs, storage resources, and loads.
Trenching, vault installation, conduits, AWG wiring

Solution: eliminate transmission lines!

All power is transferred wirelessly using free space optical (FSO) links between microgrid components

Benefits: 20% reduction in installation costs, 50% reduction in installation time, same-day outage diagnosis and repair, modularity to add new components.

