Dual Use Microgrid for Hometown Resilience

clean energy revolution unfolding

nationwide, and demonstrate an innovative new use case to enable resiliency measures that benefit the

community for 15 to 20 years.









Travel Mode

Project intends to implement a unique, portable solar microgrid in rural/smaller communities for use during emergencies and non-emergencies. Project will provide advanced technology exposure to an underserved area, increase equity in the

Distribution Panels **Batteries** Inverters MicroGrid Controller **ExoSolar Units**

Operational Mode



- Perry County, KY: Underserved and Legacy Coal Community. Devastated by severe flooding in 2022.
- Microgrid Capacity: Up to 30 kW of solar + 90 kWh battery
- Swift Deployment → Containerized, Portable, and Easy to Use
- **Novel Use-Case**: Shareable Asset for Resilient Hometowns
 - **Emergency**: Endless backup power for community critical infrastructure sites
 - **Normal Times**: clean, renewable power for a host facility
- System Demonstrated in Puerto Rico and by DOD/Army.
- **Seeking first-of-a-kind demo** in hometown communities.



Team & Collaborators

- National Institute for Hometown Security
- Resilient Energy & Infrastructure
- Perry County, Kentucky
- Kentucky Assoc. of Mitigation Managers