



**System Hardening & Reliability  
Improvement Program (SHRIP) – Topic Area 2**  
City of Lake Worth Beach Electric Utility  
1900 2<sup>nd</sup> Avenue  
Lake Worth Beach Florida 33461  
Project Manager – Ed Liberty

The City of Lake Worth Beach has applied to the Department of Energy for a Grid Resilience and Innovation Partnerships grant for SMARTGRID enhancements of our municipally owned utility and to promote overall grid performance. The approach combines adding sensors and smart devices to the grid with strengthened bidirectional grid communications to increase reliability, reduce outages, and improve grid management to achieve the following objectives:

- Improve transmission reliability and limit the effects of outages.
- Enhance secure communication and data flow between distribution components;
- Provide interconnections and battery storage for its solar and green energy initiatives;
- Improve grid visibility and condition; and
- Improve grid-related decision making based upon historical and real-time system data.

The proposed project methods, with a description of each follows.

- **Sectionalizing devices:** Improve operator monitoring and control of the electrical system to allow power restoration within minutes or seconds of outages by adding reclosers and other sectionalizing devices.
- **Fiber Optics:** Enhance secure communication and data flow between electric distribution components with fiber and remote sensing devices.
- **Interconnection and Battery Storage for Community Solar:** Enhance electric distribution system configuration and operability to integrate a battery energy storage system with the City's existing solar installation and allow for further expansion of the project site to accommodate an estimated additional 7 MW AC of solar capacity.
- **Advanced Metering Infrastructure System:** Installation of an AMI system with bidirectional communications to improve grid visibility by system operators to facilitate more efficient and accurate system-related decisions using technology.
- **Meter Data Management (MDM) System:** Install a centralized MDM system that receives, stores and displays incoming AMI data for grid operators to manage demand load.

The benefits and outcomes are more stable, resilient access to electricity for Lake Worth Beach. DOE funding will benefit customers of Lake Worth Beach's small utility serving one of the most economically and underserved municipalities in Palm Beach County. It will lead to an anticipated 100 new STEM jobs/careers and channel cleaner and more efficient energy. The project will allow the City of Lake Worth Beach to ensure that its electric grid can cope with increased demand needed to transition to higher standards of living and electrification, be resilient and provide excellent service to existing low-income communities.