# Request for Proposal Lewes BPW Electrical System Long Range

**Potential Bidders**

Booth & Assoc

Potomac Testing

Sargent & Lundy
Engineering consultant
Elkridge, MD

Black & Veatch
200 Bellevue Parkway
Suite 215
Wilmington, DE 19809

GDS Engineering
9201 East 63rd Street, Suite 100
Raytown, MO 64133

**Required Experience**

Qualified bidders shall demonstrate prior experience in:

- Analysis of transmission/distribution network for load flow/capacity
- Transformer/breaker sizing
- Protective relay coordination studies
- Integration of renewable energy resource
- Planning for load growth of electric vehicles
- Integration of distributed generation/storage/micro grids
- Use of Smart Grid technology to drive energy efficiency and efficient use of infrastructure
- Storm hardening of infrastructure
- Upgrading of substation/transmission systems to improve reliability

**Scope of Work:**

1. Analyze three different conditions:
    a. Current system configuration and demand
    b. Five (5) year buildout based on current known developments Projects

    c. Ten (10) year buildout based on potential additional development and changes due to Electric Vehicle (EV) adaption and behind the meter renewable growth
2. Analysis should include:
    a. Sizing of Transformers (considering a single failure)
    b. Sizing of 69kv Transmission line
    c. Sizing of 69kv Transmission breaker
    d. Sizing and configuration of Schley Ave Substation (breakers, buss work, protective relaying, etc.)
    e. Voltage drop and current for distribution network
    f. Sizing and location of capacitors
3. Analysis of cost for
    a. Second 69KV to improve reliability along with potential routing and tie-in points
    b. Or as an alternative, use of a backup power source such as a Generator Set
4. Recommendation for use of Smart grid technologies such as Smart Meters to address impact of EV, minimize cost of system upgrades, incentives end customer efficiency and peak shifting
5. Recommendations for potential benefits of energy storage options
6. For any system upgrades proposed, recommend sizing to consider potential expansion of the Lewes BPW Electric CPCN territory

Lewes BPW will supply

1. GIS info of current infrastructure
2. Sizing data for current system hardware
3. Current system loads
4. Five (5) and ten (10) year regional development outlook