



McCord Engineering, Inc.
916 Southwest Parkway East
College Station, Texas 77840
(979) 764-8356 Fax (979) 764-9644

Specific Project Proposal *Revised*

for

Bastrop Power & Light

Five-Year System Study (2025-2030)

BPL - 10

August 27, 2024



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**Bastrop Power & Light
Five-Year System Study (2025-2030)**

McCord Engineering, Inc. (hereinafter called “MEI”) defines the scope and objective of this proposed project for Bastrop Power & Light (hereinafter called “BP&L”) hereafter.

I. SCOPE AND OBJECTIVE

MEI will prepare a five-year system study for BP&L to use as a component of ongoing integrated system planning, and as means for specifying and documenting electric distribution project requirements for the next five years in order to facilitate the growth experienced by the city of Bastrop.

A. MEI requests the following applicable items from BP&L:

1. Any potential model changes
2. Substation/Transmission source impedance information
3. Downline recloser settings
4. Substation transformer information
5. Feeder peak and billing information
6. Planning and design criteria
7. Anticipated and/or known new electric loads

B. MEI will complete the following for the system study:

1. Field verification and calibration of existing BP&L Milsoft Windmil engineering analysis electric distribution model to current state equipment and configurations.
 - a. Verify all OH conductor sizes
 - b. Verify phasing
 - c. Verify location of all sectionalizing switches
 - d. Verify location of reclosers and fused cutouts
 - e. Verify location of all distribution transformers and kVA sizes
 - f. Verify location and sizes of all capacitor banks
 - g. Location and sizes of underground conduit and facilities will be assumed to be correct in model
 - h. Verification of utility poles and foreign attachments is excluded from this scope of work

In addition to the verifications listed above which are to be completed during the field review, MEI shall also do a visual inspection of all poles and prepare a report on any poles that show to require attention by BP&L (broken crossarms, damaged equipment on pole, bad pole, etc.).

2. Distribution system analysis
 - a. Perform existing distribution system analysis and provide recommendations
 - i. Including but not limited to, voltage and capacity analysis, phase balance analysis, system configuration analysis and power factor analysis
 - b. Perform projected electric load growth system analysis and provide system upgrade recommendations
 - i. Including but not limited to, five-year electric growth projections, new customer line extension projections, ultimate load growth projections
 - c. Perform system loss analysis
 - d. Perform substation capacity analysis
 3. Perform feeder contingency analysis and prepare findings with recommended projects.
 - a. Prepare planning criteria for Under Emergency Conditions
 - b. Perform contingency analysis on existing system
 - c. Perform contingency analysis for projected loads with recommended projects
 4. Perform arc flash study and prepare findings
 - a. Prepare study criteria and assumptions
 - b. Perform study and prepare results
- C. MEI will provide a 60% preliminary system study report to discuss recommended projects with BP&L prior to finalizing.
- D. MEI will provide a final electric system five-year study and capital improvement program (CIP) report. The final report is to feature the following:
1. Distribution system analysis
 2. Feeder contingency analysis
 3. Arc flash study
 4. System improvements
 - a. Sectionalizing recommendations
 - b. Capacitor additions/upgrades

- c. Feeder upgrades
- d. Feeder exits/extensions
- e. Feeder balancing recommendations
- f. Power transformer additions/upgrades

5. *System maps of proposed improvements and feeder configurations*

II. COST ESTIMATE

MEI proposes the compensation and terms for the furnishing of engineering services for this project shall be a not to exceed amount of **\$75,000**. MEI will invoice Bastrop Power & Light monthly based on MEI's current fee schedule.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be duly executed.

Bastrop Power & Light
Client

McCord Engineering, Inc.
Engineer

By _____

By _____


Name _____

Name Rex N. Woods, P.E., President

Date _____

Date 8-27-2024