

RESOLUTION NO. 2015- 15

A RESOLUTION AUTHORIZING THE CITY MANAGER TO ENTER INTO AN AGREEMENT WITH AMP, INC. TO PERFORM AN ARC FLASH ANALYSIS OF THE CITY'S ELECTRICAL SYSTEM; APPROPRIATING FUNDS AND AUTHORIZING THE EXPENDITURE OF MONEYS THEREFORE

BE IT RESOLVED by the Council of the City of Clyde, State of Ohio:

SECTION 1. That the City Manager be and he is hereby authorized and directed to enter into an agreement with AMP, Inc. of 1111 Schrock Road, Suite 100, Columbus, OH to perform an *Arc Flash Analysis, including data collection*, of the City of Clyde's Electrical System for an amount of \$37,350, as per the attached proposal.

SECTION 2. That the expenditure of funds for such purchase in the amount of Thirty-seven Thousand Three Hundred Fifty Dollars (\$37,350) be and the same is hereby expressly authorized from the Electric Fund.

SECTION 3. That the City Manager is further authorized by this Council to execute any and all documents associated with this project, including Change Orders; Additional Work Orders by either Unit Pricing or agreed upon pricing by the City and the Contractor performing the work.

SECTION 4. That this Resolution shall take effect and be in force immediately upon its passage.

PASSED: 4-7-15


G. Scott Black, Mayor

ATTEST: Janet R. Dickman
Clerk of Council

APPROVED AS TO FORM:

Barry W. Bova, Solicitor

Attachment 1
Clyde Arc Flash Proposal

PROPOSED SCOPE OF WORK:

- A. Data collection will need to be performed to create the model in Easy Power.
 - a. Two options for the collection are included in the cost estimate. One is for the City to collect the necessary information and the other is for AMP to collect the information. Accurately collecting the data is an important piece in the overall arc flash analysis.
 - b. Wire sizes, types and lengths, protective devices (fuses, circuit breakers, reclosers, and/or relays), transformer sizes, etc would need to be collected.
 - c. If the system can be configured in various ways (circuit ties) or if you have generation that can provide power on the distribution grid, then this information would also need to be collected so that an accurate one-line diagram can be created.
 - d. AMP will contact AEP to obtain the available short circuit information at your interconnection point.
- B. Creation of a one-line diagram so that the system can be modeled in Easy Power.
 - a. The model will be used to calculate the available short circuit current at various locations on the system.
 - b. Situations involving the normal configuration, n-1 and n-2 conditions will be evaluated.
 - c. Recommendations for the arc flash values would be based upon the worst case situation.
- C. Analysis of the data would include looking at various points on the three phase distribution system, in the substation and at transformers, switches and other locations on the system.
- D. AMP will provide a written report with PPE values for the various points on the system (nodes); AMP will also identify any areas that may need additional analysis to reduce arc exposure. (An example of additional analysis that might be required would be an additional study to reduce the clearing time of fuse so that the arc flash value is decreased.)

If the City desires to have labels created for its substation equipment, they can be created on a case by case basis.

COST ESTIMATE:

The estimated costs for the Project are detailed in Attachment 2. The 2015 MESA Rate sheet can be found in Attachment 3.

All work will be performed on a time and material basis. AMP has assigned manhour estimates for Scope Items as indicated on Attachment 1. The values provided are estimates and actual hours/costs may be more or less. AMP will provide monthly accounting of manhour charges for each task. Manhours may be shared between tasks and AMP staff members as needed. AMP will provide written requests for authorization with justification prior to exceeding any Scope Item beyond 10% and any time there is a scope change.

PROJECT BILLING:

All work will be performed on a time and material basis. Monthly invoices will be provided which detail the hours charged and materials used.

Attachment 2
Clyde Arc Flash Proposal

Project Engineering

Description of Work	Estimated Costs
Data Collection by AMP	\$8,150
Creation of one-line drawing and calculation of short circuit values	\$21,800
Data Analysis	\$3,700
Written report	\$3,700
Total Estimated Project	\$37,350

*estimation based upon previous projects

If the City collects the data for the study, then the cost for all of the above work (less the data collection by AMP) is estimated to be:

\$30,720

Attachment 3
Clyde Arc Flash Proposal

2015 Rate Schedule

Position	MESA Hourly Rate
President/Senior Vice President/ Vice President	\$110 – \$200
Senior Project Manager	\$90 – \$150
Project Manager	\$80 – \$120
Project Engineer	\$70 – \$100
Field Technician	\$60 – \$100
Engineer/Specialist	\$45 – \$80
Technician	\$40 – \$65
Administrative	\$35 – \$55

Charges actually billed for all MESA positions will be based on actual cost for each position charged according to the position ranges approved by the AMP Board of Trustees.

Position Category

President/Senior Vice President/ Vice President: Vice President

Senior Project Manager: Senior Director of Environmental Affairs, Asst. VP of Technical Services, Director of Environmental Affairs

Project Manager: Manager of Environmental Affairs.

Project Engineer: –SCADA Engineer,

Field Technician: Power Quality Substation Maintenance Technician, Circuit Rider, SCADA Technician, Generation Technician, Manager of Technical Training

Engineering/Specialist: Technical Services Coordinator, Mechanical Engineer,

Technician: Engineering Technician

Administrative: Administrative Assistant

Note: Organization positions not listed will be billed within the appropriate range listed.
Updated: 10/29/14