



Department Source: City Utilities - Water and Light

To: City Council

From: City Manager & Staff

Council Meeting Date: September 5, 2017

Re: Electric distribution system study by Quanta Technology Inc.

## Executive Summary

Staff has prepared for Council consideration an ordinance authorizing the City Manager to execute an agreement with Quanta Technology, LLC of Raleigh, North Carolina in the amount of \$97,500.00 for professional engineering services related to the Independent Distribution Reliability Study for Columbia's electrical distribution system.

## Discussion

In January of 2016, the planned construction of the Mill Creek Substation and associated 161 kV transmission line was put on hold after a public hearing conducted by the City Council. At that time, staff had proposed the Mill Creek substation to feed increased loads in the southern portions of electric distribution system. Due to the delay and continued growth in southern Columbia, staff has solicited Quanta Technology, LLC to independently evaluate the electric distribution system load and the need for a new substation.

Quanta Technology, LLC has been selected to conduct an engineering study to conduct power flow computations, substation load evaluations, identify concerns, and recommend mitigation options to determine the robustness and reliability of the Columbia's electric distribution system. This study will evaluate identify system deficiencies of the electric distribution system's present state and compare it to industry best practices. This assessment will be used to identify system deficiencies, provide a comparison with industry best practices and determine if revisions to engineering, operating and maintenance practices should be considered.

Quanta Technology, LLC will also suggest and evaluate several different options for dealing with load growth within the electric service territory of the City of Columbia.

## Fiscal Impact

Short-Term Impact: \$97,500. This is the cost of completing the study.

Long-Term Impact: None



## Strategic & Comprehensive Plan Impacts

### Strategic Plan Impacts:

Primary Impact: Infrastructure, Secondary Impact: Not Applicable, Tertiary Impact: Not Applicable

### Comprehensive Plan Impacts:

Primary Impact: Infrastructure, Secondary Impact: Not applicable, Tertiary Impact: Not Applicable

## Legislative History

| Date | Action |
|------|--------|
| None | None   |

## Suggested Council Action

Staff recommends that Council adopt an ordinance authorizing the City Manager to execute an agreement with Quanta Technology, LLC of Raleigh, North Carolina in the amount of \$97,500.00 for professional engineering services related to the Independent Distribution Reliability Study for Columbia's electrical distribution system.