

Memorandum

To: John Glascock, Deputy City Manager

From: Tad Johnsen, Director of Columbia Utilities

Date: November 17, 2017

Subject: Transmission Line Progress Update #6

Ameren:

During the week of November 6th staff from Ameren reached out to City staff to discuss what a partnership using joint structures might look like. An initial estimate produced by Ameren suggested that the cost to the City to build ~10 miles of line with joint 345/161 kV structures would be approximately \$25 million. Ameren further expressed that they would prefer to maintain separate rights-of-way in the event that they would have a need for an additional line in the future. It was suggested that a project with greater mutual benefit to both parties could be realized by sectionalizing the 345 kV line west of Columbia and building a new 345 kV switchyard and substation creating a new interconnection point with the City of Columbia.

This concept would be achieved by the City building the new 345 kV switchyard west of Columbia. The City would also build a 345 kV to 161 kV substation with the addition of one or more transformers. A relatively short (~2 miles) 161 kV line would be built from this new substation to supply the second feed into the City's Perche Creek substation. Once completed, Ameren would be the owner/operator of the 345 kV switchyard and the City would own/operate the 161 kV substation and line to Perche Creek. Planning staff from both Ameren and the City have begun modeling this project to determine impacts and viability on their systems.

Quanta:

On November 17 staff from Quanta and the City met in Columbia for a data set review. The main purpose of this meeting was for Quanta to gather answers to their questions regarding the data set that was submitted to them by the City. The following topics were discussed: circuit data; load data; capacitor placement and control; feeder load limits; voltage drop; transformer voltage regulation and load tap changer performance; substation one-line diagrams; location and size of distribution transformers; and cost estimates and engineering plans for Mill Creek Substation. Other items discussed were frequency of future update meetings (Tuesdays moving forward bi-weekly), file transfer medium, and a Mill Creek Substation field trip.

Burns & McDonnell:

Staff is coordinating for a data set review for the week of November 27. To date, Burns & McDonnell has not requested any data requiring a response from Ameren.