



City of Columbia

701 East Broadway, Columbia, Missouri 65201

Department Source: City Utilities - Water and Light

To: City Council

From: City Manager & Staff

Council Meeting Date: August 7, 2023

Re: Public Hearing: Bolstad Substation Transformer and Switchgear Additions.

Executive Summary

This is the public hearing concerning the addition of two (2) new 161 kV station class transformer and switchgear lineups at the Bolstad Substation. The project location is shown on the attached Location Map. An interested parties (IP) meeting was held on May 17, 2023. The resolution estimate for this project is \$1,200,000 and will be paid from Project E0218 of the Electric Capital Improvement Program.

Discussion

This project will add two new 161/13.8kV transformer and switchgear lineups to the Bolstad substation 161kV bus. This project will utilize the transformers and switchgear purchased with 2016 electric revenue bond funds for the proposed Mill Creek Substation. Currently, the Bolstad existing 69/13.8kV transformers and switchgears are 20MVA each and connected to the 69kV bus and will be retired. One of the lineups has reached the end of its useful life and will be scrapped. The other 69/13.8kV transformer and switchgear lineup may be available as a spare or replacement for existing substations. An examination of the equipment will be required after it has been taken out of service to determine if that is possible. The two new 161/13.8kV transformer lineups are 25MVA each and will result in a net gain of two electric distribution feeders to accommodate growing load in the area of northeast Columbia as well as improving redundancy and reliability for the substation. Two new 13.8kV distribution feeders will be constructed from the new switchgear lineup as separate projects in the future. Provisions will be made with this project to ensure a future expansion of a third transformer lineup at the Bolstad Substation can be accommodated. Adding these two 161/13.8kV transformer lineups will require an extensive reconfiguration of the 161kV bus at the Bolstad Substation. There is sufficient space on the north side of the existing Bolstad Substation property to accommodate this reconfiguration. Existing and proposed project graphics are attached.

An Interested Parties (IP) Meeting was held on May 17, 2023, at City Hall. Three citizens attended the meeting and two expressed concerns that this project included proposed transmission line additions. This work is to upgrade an existing substation to improve reliability. The resolution estimate for this project is \$1,200,000 and will be paid from Project E0218 of the Electric Capital Improvement Program. Funds for this project are proposed to be from revenue bond funds or enterprise revenue funds.



Fiscal Impact

Short-Term Impact: The resolution estimate is \$1,200,000.
Long-Term Impact: Minimal impact to operations costs.

Strategic & Comprehensive Plan Impact

[Strategic Plan Impacts:](#)
Primary Impact: Reliable 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
7/17/2023	R104-23 Setting a public hearing: Bolstad Substation transformer and switchgear additions.
05/17/2023	Interested Parties Meeting

Suggested Council Action

Direct staff to proceed with the final design for the Bolstad Substation transformer and switchgear additions.