



# 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: February 6, 2017

Re: Repair of the Natural Gas Generators at the Columbia Energy Center

## Executive Summary

Staff has prepared for Council consideration an ordinance appropriating \$2,800,000 for the repair of three General Electric natural gas combustion turbine generators located at the City's Columbia Energy Center. Of the \$2.8 Million, \$2.7 Million is for a contract with General Electric International, Inc. for the repair of the Columbia Energy Center units. It is estimated that an additional \$100,000 will be necessary for support from existing contractors already under contract with the City of Columbia.

## Discussion

The Columbia Energy Center was developed and constructed by Ameren in 2001 as a peaking facility. The plant is comprised of four identical 36 MW General Electric (GE) natural gas combustion turbines. On June 1, 2011 the City of Columbia purchased the facility from Ameren.

Since the purchase of the plant, the City has utilized a combination of external contractors and staff to support the operation and maintenance of the facility. In March of 2016, Advance Turbine Support, LLC was contracted to perform a borescope inspection of the units at CEC. This inspection was to identify any abnormal conditions and to serve as a baseline for future borescope inspections. The inspection identified damage to a section of the rotor blades in three of the four gas turbines. As a result of these inspections our insurance provider has recommended that the units not run until the damage is repaired to prevent the potential for additional damage.

Based on the report from Advance Turbine Support, staff began seeking recommendations from GE on repairs to the turbines. GE is the original equipment manufacturer of the units and has developed a repair for the issues encountered. Water & Light intended to utilize the FY2016 Operations and Maintenance budget to fund these repairs, but contract negotiations with GE went beyond the end of the fiscal year and now needs to appropriate from Retained Earnings. Prior to the purchase of the facility by the City in 2011 a due diligence review was performed by Segal Engineering. SEGAL concluded that the overall condition of the equipment and systems found in the facility appeared to be appropriate for a plant of that age, that maintenance at the facility appeared to be consistent with acceptable utility industry practices, and operational history compared favorably with reported industry averages for similar units of size and type.



## Fiscal Impact

Short-Term Impact: Total repair cost is \$2,800,000

Long-Term Impact: None

## Vision & Strategic Plan Impact

### Vision Impacts:

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

### 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 Council approve an ordinance appropriating \$2,800,000 for the repair of three General Electric natural gas combustion turbine generators located at the City's Columbia Energy Center.