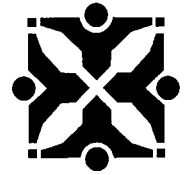


City of Columbia

701 East Broadway, Columbia, Missouri 65201



Agenda Item Number: B 375-15

Department Source: City Utilities - Water & Light

To: City Council

From: City Manager & Staff

Council Meeting Date: 12/21/2015

Re: Construction of Boiler 8 NOx Reduction Upgrades.

Documents Included With This Agenda Item

Council memo, Resolution/Ordinance

Supporting documentation includes:

Executive Summary

Staff has prepared for Council consideration of an ordinance approving plans and specifications for Boiler 8 NOx reduction upgrades, authorizing part of the project to be constructed by City employees or existing contracts and part to be bid by the purchasing agent and paid for with funds previously allocated to Capital Improvement Project, EL0183

Discussion

Water & Light owns and operates a 35 MW natural gas fired steam boiler and turbine at the Municipal Power Plant that was installed in 1970. The system, known as Boiler 8 - Turbine 8, was originally designed to burn fuel-oil and natural gas. As the price of both of those fuels had historically been high, relative to coal, the boiler does not have a high historical use rate. The unit uses older technology and currently has a high emission rate with respect to nitrogen oxides or NOx. Water & Light recognized an opportunity with the recent availability of economically priced natural gas and conducted a preliminary study regarding upgrading Boiler 8 to reduce NOx emissions.

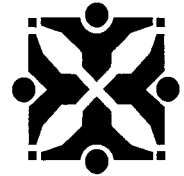
The study, delivered in April 2012, determined that upgrades could be made at reasonable cost, thus allowing W&L to improve the utility of the boiler in the new natural gas environment. W&L established a Capital Improvement Project, EL0183. The Boiler 8 - Turbine 8 system has the capability of being used as either a base-load or peak-load power generation asset. The estimated cost of the upgrades is \$2,900,000 and is already appropriated to CIP Project EL0183.

Water & Light held an interested parties meeting on February 3, 2014 at City Hall. After a public hearing on March 2, 2014, Council authorized preparation of plans and specifications for the project. In June 2015 the City's design consultant SEGA engineering issued plans for low NOx burners. Water and Light is now ready to proceed with construction of these improvements.

Water & Light is proposing to utilize a combination of City employees and existing Term and Supply contracts for the labor portion of this project and intends to bid materials through the City's Purchasing Agent.

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Fiscal Impact

Short-Term Impact: \$2,900,000 previously appropriated to CIP Project EL0183.

Long-Term Impact: Improved performance of the Boiler 8 - Turbine 8 system in the current low price natural gas environment.

Vision, Strategic & Comprehensive Plan Impact

Vision Impact: Not Applicable

Strategic Plan Impact: Infrastructure

Comprehensive Plan Impact: Infrastructure, Environmental Management

Suggested Council Action

Staff recommends Council approve an ordinance approving plans and specifications for Boiler 8 NOx Reduction Upgrades, authorizing part of the project to be constructed by city employees or existing contracts and part to be bid by the purchasing agent and paid for with funds previously allocated to Capital Improvement Project, EL0183

Legislative History

February 3, 2014 – Interested Parties meeting held.

February 17, 2014 - R22-14 Resolution setting public hearing.

March 3, 2014 – Public hearing.


Department Approved


City Manager Approved

Introduced by _____

First Reading _____

Second Reading _____

Ordinance No. _____

Council Bill No. B 375-15

AN ORDINANCE

determining it is in the public interest to construct upgrades to Boiler 8 at the Municipal Power Plant to reduce nitrogen oxide (NOx) emissions; approving and adopting plans and specifications; determining that a portion of the work shall be done by contract; calling for bids through the Purchasing Division; determining that potentially a portion of the project shall be done by city employees; providing for payment for the improvement; authorizing the City Manager to obtain, execute and record all documents necessary for the improvement; providing for compliance with the prevailing wage law and state-mandated construction safety training; and fixing the time when this ordinance shall become effective.

WHEREAS, the City Council adopted a resolution declaring the necessity of constructing upgrades to Boiler 8 at the Municipal Power Plant to reduce nitrogen oxide (NOx) emissions; and

WHEREAS, the notice of a public hearing on this project was published in a daily newspaper of general circulation in the city; and

WHEREAS, the City Council has held a public hearing on construction of the improvement.

NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF COLUMBIA, MISSOURI, AS FOLLOWS:

SECTION 1. The Council finds that the construction of upgrades to Boiler 8 at the Municipal Power Plant to reduce nitrogen oxide (NOx) emissions in the City of Columbia, Missouri, is necessary for the welfare and improvement of the city and that it is in the public interest that such improvements be made.

SECTION 2. The plans and specifications for this improvement, as prepared by the Director of Water & Light, are hereby approved.

SECTION 3. A portion of the construction of the improvement shall be done by contract in accordance with the plans and specifications, the laws of the State of Missouri, and the Charter and Ordinances of the City of Columbia, Missouri.

SECTION 4. The Purchasing Agent is hereby authorized to call for bids and execute a contract for the improvement. Dependent upon the bids received and as deemed advisable by the City Manager, city employees may be used to construct a portion of the improvement.

SECTION 5. Payment for this improvement shall be made from the Water and Electric Fund using funds appropriated in Capital Improvement Project No. EL0183 and such other funds as may be lawfully appropriated.

SECTION 6. The City Manager is authorized to obtain, execute and have recorded all licenses, easements, deeds and any other conveyances or instruments necessary for the City to complete this improvement.

SECTION 7. The contract for the improvement shall provide that not less than the prevailing hourly rate of wages, as found by the Department of Labor and Industrial Relations of Missouri, shall be paid to all workers performing work under the contract. The contractor's bond shall guarantee the faithful performance of the prevailing hourly wage clause in the contract.

SECTION 8. The bid specifications and contract for the improvement shall provide that the contractor and any subcontractor shall provide a ten-hour Occupational Safety and Health Administration construction safety program (or a similar program approved by the Missouri Department of Labor and Industrial Relations) for all employees working on-site. All employees working on the site of the improvement are required to complete the safety program within 60 days of beginning work on the improvement project.

SECTION 9. This ordinance shall be in full force and effect from and after its passage.

PASSED this _____ day of _____, 2016.

ATTEST:

City Clerk

Mayor and Presiding Officer

APPROVED AS TO FORM:

City Counselor