



MEMORANDUM

**DATE:** February 18, 2020  
**TO:** Honorable Mayor and City Councilmembers  
**FROM:** Dave Perrault, City Administrator  
**SUBJECT:** HVAC Discussion

Budgeted Amount:	Actual Amount:	Funding Source:
\$350,000	\$243,000 - \$470,109	Building/Equipment Fund

**For Council Consideration**

The City Council should consider providing further direction regarding replacement of the City’s current cooling system; also for consideration is the option of replacing the current heating system.

**Background**

The City Council received a presentation from Johnson Controls regarding their review of the City’s cooling and heating system at its November work session in 2019. That memo and presentation are attached for reference (see Attachment A). At that meeting, Johnson Controls presented three options and the chart below illustrates the differences in pricing. Option A was recommended as the most efficient and reliable equipment; Option B utilizes similar equipment to our current system but includes relocating the equipment to the rear of the building to address any equipment warranty concerns; and Option C entails replacing our current set up with similar equipment in the same location (Option C would void equipment warranty due to the length of piping from the outdoor equipment to the utility room, approximately 225 to 250 ft, recommended is less than 200 ft).

Option	Equipment Type	Cost	Notes
Option A	Chiller System	\$353,898	New style of equipment, no need to relocate equipment, RECOMMENDED
Option B	Condensing Units	\$335,825	Similar to existing equipment, relocate equipment to rear of building
Option C	Condensing Units	\$243,111	Similar to existing equipment, no relocation required, NOT RECOMMENDED

Johnson Controls also noted that the City’s heating system is approaching end of life (approximately 20 years) and maintenance costs have been similar to the A/C costs. A proposal for replacement of the heating system was also included, see below for pricing. If the projects were done concurrently the City could expect approximately 5% savings on the project due to the economies of scale of having both projects done at once. The proposed boilers are high efficiency boilers, a lower cost option could be available but at a reduced efficiency rating (pricing is unknown, but it could be included in any final proposals).

Option	Equipment Type	Cost	Notes
Heating	High Efficiency Boilers	\$140,954	Remove water heater, high efficiency boilers, eligible for Xcel rebates

For illustrative purposes, the breakdown of costs for the Chiller and Boiler replacement from Johnson Controls was about 11% for design, 29% for HVAC equipment, 7% for HVAC controls, 24% for installation material and labor, and 29% for subcontractor work.

The City could pursue either option independently or together.

At the work session it was noted Johnson Controls is part of Sourcewell, formerly known as the National Joint Powers Alliance, which meets all of the bidding requirements for state purchasing guidelines. This means the City could award this project directly to Johnson Controls.

The City Council directed staff to research other options regarding replacement of the equipment. Staff reached out to Harris Controls, Metropolitan Mechanical Contractors (MMC), and Air Mechanical. MMC was the only company to provide another proposal and staff can speak to this proposal at the work session. MMC is not part of a purchasing cooperative, and the City could not award this contract directly to MMC.

Following discussion with the City Council, if the City Council decides to move forward with Johnson Controls, the City can bring forward necessary approvals to a future Council meeting. If the proposal from Johnson Controls is not acceptable, the City would likely need to hire an independent mechanical engineer to review the City’s current system and create design documents for bidding. As this project is likely to exceed the State’s bidding threshold of \$175,000, the City would need to put this project out for bid following normal project bidding rules, unless it were to negotiate with a company that is a part of cooperative purchasing agreement.

Staff did reach out to HGA, the firm that did the City’s needs assessment in 2017, as they could put together the design plans for the City. An estimate of the cost for the design was between \$19,500 and \$57,500 depending on recommended changes (this proposal was based on two parts, \$17,500 for the initial consultation and evaluation, and between \$2,000 and \$40,000 for the design documents). If the City were to consider hiring an independent contractor, we are not obligated to use HGA, but their proposal gives an idea of the expected cost for an independent design.

For the timing of this project, Johnson Controls may still be able to complete the project this year. If the City were to delay and seek an independent contractor, the project would likely take place in 2021.

Johnson Controls will not be present for the discussion and staff will field questions as they are able, but technical questions may need to be postponed if Council would like to have Johnson Controls present for a future meeting or pursue another firm's services.

### **Budget Impact**

The City currently has \$350,000 budgeted for this project in the Equipment Building Replacement Fund. Depending on the solution the Council moves forward with, the project may range between \$243,000 and \$470,109. The anticipated balance of the Equipment Building Replacement Fund at the end of 2020 is \$(29,555) (this includes the \$350,000 budgeted for HVAC replacement), and the projected ending balance of the fund in 2024 is \$499,445. The fund could absorb expenditures for this project based on current projections. The main source of revenue for this fund is transfers from the Utility Funds and a tax levy of \$50,000.

### **Attachment**

Attachment A: November 18, 2019 Work Session Memo and Johnson Controls Proposal