

MEMORANDUM

TO: The Honorable Mayor and City Council

FROM: Sam Webb, Superintendent of Fleet Services

DATE: September 7, 2021

SUBJECT: Recommendation for award of the Purchase and Installation of a Replacement Generator at City Hall

Request

Approve the resolution for the Purchase and Installation of a Replacement Generator at City Hall.

Background

In 2020, six City facility generators in five locations were assessed to determine their condition, suitability, and projected lifespan. These generators were selected because they were not yet part of a formal replacement program but have since been added. All the other City generators currently have replacement schedules which are managed by the Public Works Department and did not need to be included in the assessment for this reason. As a result of the assessment, the City Hall generator was ranked as requiring the most immediate consideration for replacement among the five locations evaluated.

The City Hall generator was installed in 1993 with an anticipated lifespan of approximately 25 years. Now in its 28th year of service, this generator is obsolete with limited product support from the manufacturer. The generator system has experienced more reliability issues and a greater than average frequency of repairs than any other City generator for many years.

A group of stakeholders (Public Safety, Public Works, Building, Administration, and Information Technology) were organized to discuss generator needs. Staff identified that supplying power to the entire City Hall building is critical to support continuity of government and public safety operations during a power outage.

Discussion

The existing City Hall generator only supplies power to limited portions of the building and only through certain electric receptacles. If not connected to a generator powered outlet, staff working in these areas must move to an electrical outlet that has generator power and/or run extension cords to perform their work during a power outage. Some major building systems such as the air conditioning system and building access card readers are not supplied with generator power. Adding this equipment and providing generator power to the entire building requires additional generator capacity.

The proposed replacement generator will be adequately sized to provide power to the entire City Hall building with an approximate extra 20% unused capacity for possible future needs and as an industry best practice. The Annex will not be included in the generator power upgrade because it has a separate and independent power supply from ComEd.



During a power outage, the Annex will remain only partially powered, the same as now, through an existing connection to the City Hall generator. Powering the entire Annex is not proposed, with employees from the Annex who are not teleworking temporarily moving to City Hall to carry out their assignments during a long-term power outage.

Natural Gas Supply & Disruption

Another factor that was identified during the assessment phase of the project was that the current natural gas fuel supply to the building is deficient. Analysis completed by NICOR and the project engineer concluded that the natural gas supply to City Hall is inadequate for the demand in its present state. To continue using natural gas for any generator fuel source will require upgrading the natural gas service to the property which involves replacing the gas line from the corner of Wheaton Ave and Wesley St. This upgrade would cost approximately \$20,000 and require excavation and underground boring from the street intersection to the meter location on the West side of the building.

Staff discussed the costs of the natural gas upgrade and the limitations of using natural gas as a fuel source for emergency operations. Natural gas is susceptible to service interruptions during natural disasters. Supply of other generator fuel types such as diesel fuel can also be disrupted but the City has diesel fuel reserves that can be utilized in these situations.

Natural Gas vs. Diesel Fuel

Environmental factors were analyzed between using diesel fuel vs. natural gas. Although burning natural gas produces about 1/3 less Carbon Dioxide emissions, the proposed replacement generator is infrequently used and will meet or exceed current governmental emission standards. With a lifespan of approximately 30 years, the total generator usage will equal approximately 1,500 hours over that time. For perspective, a typical large City dump truck accumulates 20 times or approximately 30,000 hours of use and be replaced three times in the same timeframe as the City Hall generator.

Proposed Whole Building City Hall Generator	
Fuel Type	LBS CO2 Expelled over 30 years/1500 hours of use
Natural Gas	202,500
Diesel	279,200

With all these factors considered, staff is requesting that the City Hall generator is replaced with a diesel fueled unit that has the capability to provide standby power to the entire City Hall building.

Scope of Work

The generator replacement project entails removing and replacing the existing generator with a new unit placed at the same location on the West side of the building. The existing concrete generator base will be removed and re-poured to support the heavier new generator. The existing generator transfer switch will be removed and replaced with a new transfer switch in a new location, at the electric service entrance in the Southeast corner of the City Hall basement. Electrical conduit and wiring will be installed in the basement between the generator and electrical service entrance to the building. During construction, a temporary generator will be used in place of the existing generator and is included in the project cost. Power supply interruptions that will affect City operations will be scheduled for off hours, as possible.

Bid Results

Bids were received from the following vendors:

Vendor	Price
BME Electric, Inc.	\$204,100
Volt Electric	\$288,439

Procurement Review

Procurement staff reviewed the bid from BME Electric, Inc. for conformity with the City's terms and conditions, bid bond and insurance requirements. BME Electric, Inc. is compliant with the bid requirements.

Budget Impact

\$80,000 was budgeted in 2021 in the Building Renewal Fund as a placeholder for City-wide generator capital projects. Following completion of the assessment report, the City Hall generator was determined to be the priority replacement need. Engineering services for this project which have been separately approved for \$13,200, with services being provided in 2020, 2021, and 2022. The requested construction and generator equipment cost of this project is \$204,100, which will be expended during 2021 and 2022 if approved. The remaining \$124,100 and balance of engineering services will be appropriated in the 2022 budget.

Recommendation

Staff supports replacing the City Hall generator with a diesel fueled unit that has the capability to provide standby power to the entire City Hall building and recommends that the City Council adopt the resolution authorizing the execution of Agreement No. 222 with BME Electric, Inc., Inc. for a total amount not to exceed \$204,100 for the Purchase and Installation of a Replacement Generator at City Hall.

The Agreement, exhibits, bid package and responses are on file in the City Clerk's office and available for review.

RESOLUTION R-2021-

A RESOLUTION AUTHORIZING THE PURCHASE AND INSTALLATION OF A REPLACEMENT GENERATOR AT CITY HALL FROM BME ELECTRIC, INC. FOR A TOTAL AMOUNT NOT TO EXCEED \$204,100

WHEREAS, the City prepared a Bid package (Bid Number 21-64) that included the Purchase and Installation of a Replacement Generator at City Hall; and

WHEREAS, the City solicited bids in a public bidding process and bids were publicly opened and read on July 7, 2021, at 11:30AM. BME Electric, Inc. was determined to be the lowest, responsive, responsible bidder with a bid amount of \$204,100; and

WHEREAS, the City budgeted funds in the Building Renewal Fund in the amount of \$80,000 for the Purchase and Installation of a Replacement Generator at City Hall. The remaining \$124,100 and balance of engineering services will be appropriated in the 2022 budget.; and

WHEREAS, both parties agree to the terms and conditions and pricing set forth in the bid proposal for the Purchase and Installation of a Replacement Generator at City Hall; and

WHEREAS, the corporate authorities of the City of Wheaton, DuPage County, Illinois find it reasonable and appropriate to enter into an agreement with BME Electric, Inc., 9935 S. 78th Ave., Unit A, Bridgeview, Illinois, 60455, for the Purchase and Installation of a Replacement Generator at City Hall.

NOW, THEREFORE, BE IT RESOLVED by the Mayor and City Council of the City of Wheaton, Illinois, that:

The Mayor is hereby authorized to execute, and the City Clerk is hereby directed to attest to City of Wheaton Agreement No. 222 with BME Electric, Inc., 9935 S. 78th Ave., Unit A, Bridgeview, Illinois, 60455, for the Purchase and Installation of a Replacement Generator at City Hall for a total amount not to exceed \$204,100; and that a copy of that certain City of Wheaton Agreement No. 222 is on file with the City Clerk's office as Exhibit A to this Resolution R-2021-____ and is hereby incorporated into this Resolution as if fully set forth herein.

ADOPTED this 7th day of September 2021.

Mayor

ATTEST:

City Clerk

Roll Call Vote:

Ayes:

Nays:

Absent:

