



STAFF REPORT

REPORT OF THE DIRECTOR OF PUBLIC WORKS FOR THE CONSIDERATION OF COUNCIL REGARDING THE SUPPLY AND INSTALL OF A BACKUP DIESEL GENERATOR AT CITY HALL

OBJECTIVE

To provide Mayor and Council with information with regard to the supply and install of a backup diesel generator at City Hall.

RECOMMENDATION

THAT the report dated August 11, 2021 by the Director of Public Works be received;

AND THAT Council direct staff to proceed with the purchase of a 400-Amp backup diesel generator and transfer switch for the City Hall facility as soon as possible.

Respectfully Submitted

Daryl Halloch
Director of Public Works

Approved by

Daniel Gagnon
Chief Administrative Officer

BACKGROUND

The original request was from the I.T. Department and the Emergency Management Committee to look at the feasibility to install an emergency power supply that would have the ability to keep the servers operating and allow the Municipal building to be operational in both an emergency situation and a control center. The pricing and quotes were submitted for budget and they were approved to proceed with the project.

The purpose of this new initiative is therefore to explore the possible expansion of the opportunities for stand-by generator interconnection to all the emergency services (Fire Department, OPP, City Hall and Paramedic) within the scope of work.

ANALYSIS

The reason for this initiative was through a concern expressed by other facilities that the City of Elliot Lake maintains for emergency services. We were verbally asked to provide emergency power to be able to include the A.D.S.A.B. building that houses the ambulance services as well there was an informal request by the O.P.P.to include them in as well. The fire department is also looking at having a stand-alone system.

At most the basic level, you should have backup power generator of some type (natural gas or diesel) that is large enough to power up your critical systems. As staff investigated the process of installing separate generators a decision was made to revisit the main power at city hall and determine a cost effective solution to provide emergency power to all emergency facilities. As described earlier one large 1000 amp generator and transfer switch would have the ability to feed the entire infrastructure.

To supply and install an appropriate sized generator for each of the buildings. This would involve a load test and ongoing monitoring of hydro consumption. Also determining with the tenants what is required for operations, whether they require full building power or essential services to operate. The costs for this would be dependent upon what the tenants require but if the requirements are not full load there could be a substantial savings in that each building may only require a 100-amp generator. This in turn would allow for individual costing for each building and would involve less cabling and trenching which should reduce the price. The benefits of this option are that there is no single point of failure that would cause all facilities to be affected by a backup supply issue as they would all have their own supply. Engineering services would be required to look at this option as well and approvals would have to be obtained.

The city would require an official request from both A.D.S.A.B. and the OPP board with the details required to determine what size of backup generator each facility would require. Currently the OPP building has a natural gas backup generator that runs both the lighting and during a power outage.



After further research staff is recommending that we move forward with the purchase of a 400-amp diesel generator and transfer switch for city hall backup power. The entire project (purchase of generator, transfer switch, upgraded wiring and panels as well as a concrete pad and fence) is estimated to cost **\$100,000**, which council has already approved.

FINANCIAL IMPACT

Council approved the purchase of a 400-amp backup diesel generator and transfer switch at a cost of **\$100,000** plus applicable taxes to supply backup power to City Hall. To increase the size of diesel generator, as well as upgrading to panels and wiring for all 4 facilities, the City would be looking at an additional cost of \$150,000 and have one single point failure. With each facility having its own backup generator – it would be estimated to cost around \$125,000, with smaller generators required and less trenching and cabling required. A request can also be made regarding cost sharing with the organisations involved.

LINKS TO STRATEGIC PLAN

The maintenance and rehabilitation of existing infrastructure provides assurances that a prescribed standard of care is being adhered to.

SUMMARY

City staff is requesting that council approve the purchase and install of a 400-amp backup diesel generator and transfer switch along with the upgrades to panel and cabling at an estimated cost of \$100,000 plus applicable taxes.

Once approved for City Hall, administration will pursue securing detailed information regarding what needs to be operational during a power outage from A.D.S.A.B, the OPP and the Fire department and report accordingly to Public Services Committee/Budget Committee/Council as needed.

