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Item No. 12.2.3
Audit & Finance Standing Committee
October 20, 2021

TO: Chair and Members of Audit & Finance Standing Committee

SUBMITTED BY: - Original Signed -
Ken Stuebing, Executive Director / Fire Chief

- Original Signed -
Jacques Dubé, Chief Administrative Officer

DATE: September 1, 2021

SUBJECT: Fire Station and Volunteer Firefighter Paging System Upgrades

ORIGIN

This report originates from a need to identify funding in order to upgrade the paging system used to alert fire stations and volunteer firefighters of an emergency.

LEGISLATIVE AUTHORITY

Halifax Regional Municipality Council approved, Dec 11, 2012, that all budget increases are to be presented to the Audit and Finance Standing Committee, prior to submission to Council.

The *Halifax Regional Municipality Charter*, S.N.S. 2008, c. 39 subsections 93(1), 79, 35(2)(d)(i) and 120(6) provide:

93(1) The Council shall make estimates of the sums that are required by the Municipality for the fiscal year;

79 The Municipality may spend money for municipal purposes in accordance with this section;

35(2)(d)(i) The CAO can only authorize budgeted expenditures or within the amount determined by Council by policy;

120(6) The Municipality may maintain other reserve funds for such purposes as the Council may determine;

RECOMMENDATIONS ON PAGE 2

Halifax Regional Municipality policy on Changes to Cost Sharing for Capital Projects - Changes requiring Council approval.

Halifax Regional Municipality Reserve Policy - No reserve funds will be expended without the CAO's recommendation and Council approval.

The recommended contract award complies with all of the pre-requisites for awarding contracts as set out in section 26 of Administrative Order 2020-004-ADM, the Procurement Administrative Order.

Section 16 of the Procurement Administrative Order states:

"For procurement opportunities that exceed thresholds set out in applicable trade agreements, Alternative Procurement may be used, provided that it is not done for the purpose of avoiding competition among suppliers or in a manner that discriminates against suppliers of any jurisdiction covered by an applicable trade agreement, in the following circumstances: ...if the Goods, Services or Construction can be supplied only by a particular supplier and no reasonable alternative or substitute Goods, Services or Construction exist....due to an absence of competition for technical reasons;"

Section 28 of the Procurement Administrative Order provides that Halifax Regional Council may approve contract awards in any amount.

RECOMMENDATION

It is recommended that the Audit and Finance Standing Committee recommend that Regional Council:

1. Approve an unbudgeted withdrawal in the amount of \$559,374 from the Fleet Vehicle & Equipment Reserve, Q531 in the current fiscal year
2. Approve a budget increase of \$559,374 to capital project BT31 HRFE Power & Backhaul Upgrades.
3. Award Alternative Procurement # 21-1168 for the HRFE Pager System upgrade to Bell Mobility Radio for \$559,374 (net HST included) plus operating costs, with the option to extend beyond the initial five (5) year term subject to operational requirements as outlined in the Financial Implications section of this report subject to terms and conditions that are acceptable to the Municipality.

BACKGROUND

The site equipment used in the fire station and volunteer firefighter paging system has not been upgraded since its installation in 2002. Staff and the vendor have identified components that are at high risk of failure and may be beyond repair should they fail. Failure of the fire paging system will compromise the municipalities' ability to alert fire stations and volunteer firefighters of an emergency requiring their response.

DISCUSSION

Voice paging is the primary method used to alert fire stations and volunteer firefighters when there is an emergency in the community to which their response is required. This form of communication is highly reliable.

The fire station and volunteer firefighter paging system is composed of two main functions:

1. Primary paging (paging to individual fire stations and/or volunteer firefighters).
2. Backup paging (paging to a zone or group of sites). Backup paging uses the same consoles and transmitters as primary paging but a different backhaul path that is not at the same high risk of failure.

The paging system is supported by a system of 18 transmission tower sites (Marinette, Chaplin, Geizer Hill, Chaswood, Maritime Centre, Preston, Sackville, Lively Road, Ecum Secum, Tangier, Musquodoboit Harbour, Upper Musquodoboit, Sheet Harbour, Prospect (White's Lake), Shubenacadie, Harrietsfield, Hammonds Plains, and Queensland).

The sites have legacy 24V power plants and are connected to the network (backhaul) via aging and legacy T1 lines. This system has not been upgraded since its installation in 2002. Paging is also the last service using these components at the sites. Staff have identified concerns with reliability and the ability to repair these systems should a failure occur.

The site powerplants and primary backhaul facilities are at risk of failure. They are past their serviceable life and are difficult or impossible to repair. Failure of these systems would impair or prevent our ability to alert fire stations and volunteer firefighters of an emergency.

The proposed upgrades would improve reliability and repairability. The upgrades would also allow for better system performance monitoring at Bell's network operations centre.

The recommendation includes moving the Chaswood paging equipment into a Bell building. The existing building requires major repairs. Moving to a Bell building would provide a secure and stable operating environment for the equipment.

The operating costs of the paging system are funded in the operating budget of the Integrated Emergency Services Dispatch Communication Division of Halifax Regional Police (N732 -6731). The backhaul facilities upgrade would provide a reduction in annual operating cost of approximately \$475,592 over 5 years.

The recommendation is to secure funding from capital reserves to upgrade site power and primary backhaul facilities as soon as is possible in order to mitigate the risk of equipment failure and a resulting loss of emergency service to our communities.

FINANCIAL IMPLICATIONS

The recommended upgrade involves a capital expenditure of an estimated \$559,374 (net HST included). Implementation of the backhaul upgrade will reduce annual operational costs in cost center N732 by approximately \$475,592 over 5 years as outlined in the table below:

Financial Implications (net HST included)	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	Total
Reserve withdrawal - HRFE Power & Backhaul Upgrades	(\$559,374)						(\$559,374)
Current annual operating cost		\$253,014	\$253,014	\$253,014	\$253,014	\$253,014	\$1,265,070
Expected annual operating cost		(\$153,538)	(\$155,678)	(\$157,843)	(\$160,071)	(\$162,348)	(\$789,478)
Expected annual operating savings		\$99,476	\$97,336	\$95,171	\$92,943	\$90,666	\$475,592
Expected Net Cost after 5 years of operation							(\$83,782)

The reduction is a result of moving to IPVPN from T1 facilities and will reduce the annual recurring paging

system costs from \$253,014 to \$153,538 in 2022/23 to \$162,348 by 2026/27 The costs include the Phase 2 station alerting system used in staffed stations.

Budget Summary: Reserve Q531-Fleet Vehicle & Equipment

Cumulative Unspent Budget	\$ 1,541,409
Less: HRFE Power and Backhaul Upgrades	<u>\$ 559,374</u>
Balance	\$ 982,035

HRFE Paging - Power & Backhaul Upgrades – BT31

Cumulative Unspent budget	\$ 0
Add: transfer from reserve	\$ 559,374
Balance	\$ 559,374

Note that while decommissioning costs are mentioned in this proposal, they are outside the scope so are not included in the analysis.

*This project is estimated in the Proposed 2022/23 Capital Budget at \$650,000.

RISK CONSIDERATION

There is a risk, as with any alternative procurement activity, that the Municipality could be perceived as avoiding applicable trade agreement obligations. Since our existing agreements for land-based and mobile telephony and trunked mobile radio are with Bell, and in consideration that Bell has a unique offering of this type of paging system, this risk is low.

COMMUNITY ENGAGEMENT

No community engagement was required.

ENVIRONMENTAL IMPLICATIONS

No environmental implications have been identified.

ALTERNATIVES

1. Develop a plan to fund the upgrades through the regular capital budgeting process and address the risk in future years. This would result in serious risks exposure until the work is complete. If the funding amount requested is unavailable or delayed, the cost to complete the upgraded could rise above the current estimate.
2. Do nothing and accept the risk. Power plant failure would result in complete failure for both primary and backup paging for that site. Failure of the existing T1 backhaul facilities would cause a primary paging failure. Backup paging would continue to be available. Halifax Regional Fire & Emergency is the only user of the equipment. No other services would be affected.

ATTACHMENTS

None.

A copy of this report can be obtained online at halifax.ca or by contacting the Office of the Municipal Clerk at 902.490.4210.

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