

ITEM	3
MANAGER'S REPORT NO.	3
COUNCIL MEETING	93/01/11

TO: CITY MANAGER DATE: 1993 01 05
 FROM: DIRECTOR ENGINEERING FILE: 55-03-02
 SUBJECT: ELECTRICAL SERVICE REQUIREMENTS
 PURPOSE: To review the relative merits of performing electrical maintenance in-house versus contracting out for the service.

RECOMMENDATIONS:

1. THAT Council approve in principle the establishment of an in-house Electrical Systems Maintenance Division.
2. THAT Council approve the funding of a new supervisory position for the latter half of 1993 to coordinate the phased introduction of the service in 1994 as discussed in this report.

REPORT

1.0 INTRODUCTION

Members of Council will recall that last year, when staff recommended renewal of our street lighting/traffic signal maintenance contract, there was the expectation that staff would also review whether future contracts would be contracted out or performed in-house. This report addresses this issue.

2.0 BACKGROUND

Most municipalities in the Lower Mainland contract out their electrical maintenance requirements. This is so because they are too small to support this function in-house. There is obviously a threshold below which it is inefficient to do the work in-house. The cities of Vancouver, Victoria and New Westminster carry out street lighting and traffic signal maintenance "in house". The smallest - New Westminster can do so because it is unique in owning the electrical distribution utility within its borders. The analysis done for this report suggests that Burnaby too is at the threshold where it is feasible to carry out this work in-house.

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Burnaby's street light and traffic signal maintenance is carried out by Cobra Electric which is contracted to do this work to 1993 April. Another firm, Trophy Electric, carries out the other half of the City's electrical work. Its purchase requisition was recently renewed to 1993 September and covers a miscellany of Building and Parks maintenance requirements.

3.0 SERVICE ISSUES

In reviewing this topic with the Operations' staff who are key "users" of our electrical maintenance contractors we found that there is a general level of satisfaction with the service provided by the present contractors but there was also an interest and openness to doing the work in-house. Broadly speaking, the pros and cons of in-house electrical maintenance are summarized below.

Advantages of In-House Maintenance

- More direct control over costs and quality of work.
- Potentially quicker response time to service calls.
- More direct control over safety and training of employees.
- Greater flexibility of resource utilization management to permit preventative maintenance during off-peak periods.
- Enhanced productivity over time as in-house staff build a familiarity with plant.

Disadvantages

- Start-up costs.
- Possibly less flexibility during peaks and troughs in demand.
- Increased staff overhead requirements.

4.0 EVALUATION

4.1 The Threshold Factor/Scale Economies

There is a minimum number of electricians that the City would require to maintain an establishment to carry out the traffic signal and street lighting maintenance. The minimum is dictated not only by the requirements of routine and scheduled maintenance but also by the need for a timely emergency call-out response, a critical safety factor in the repair of traffic signals. A minimum of five staff is required to assure coverage.

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Our review indicates that lighting and signal maintenance currently requires 2.5 electricians. The City also employs a second electrical contractor to carry out physical plant maintenance for the Engineering and Parks departments. At a minimum, these functions also require the equivalent of 2.5 electricians. A significant component of the Parks' need includes ad hoc maintenance of outdoor lighting as well as building maintenance. There is also a potential requirement for an electrician/technician support for automated pumping stations. If these electrical works were combined with the street light and signal function there is currently a demand for five staff electricians and potentially a sixth in the future.

4.2 Cost Factors

4.2.1 Labour

As the City requires payment of fair wages, contractors should not have a cost advantage over in-house work that is efficiently scheduled and executed.

4.2.2 Equipment

There would be an initial capital outlay to equip an in-house electrical maintenance program. The City already has a crane truck and a large bucket truck that can readily be adapted and shared for street light work. Ultimately, three new vans and two small bucket trucks would have to be added to the City fleet. With equipment, the total estimated cost of \$300,000 would be spread over a 2-3 year phase-in period. Costs would be charged back to projects to fund renewal.

4.2.3 Accommodation

To accommodate the required staff, tools, trades shop equipment and material storage to provide an in-house electrical service, additional shop space in the Works Yard would be required. Staff have submitted a report previously to Council outlining a possible interim plan to meet the present space requirement. Staff will continue to work with the Civic Development Committee to determine the most efficient and cost effective method to address this issue. **Full introduction of the electrical service will require a resolution of the space issue.**

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4.2.4 Management and Administration

There are a number of options for incorporating the in-house electrical service into the fabric of the Engineering Department.

We expect five new Tradesman II-Electrician positions and a Foreman would be required although not all six would be hired initially. It is anticipated that the budgetary equivalent of an additional 2 FTE's would be required to provide the functions of managerial supervision, administration, program scheduling, clerical support, inventory control and record keeping.

The size and configuration of the establishment has been discussed with the president of Burnaby Civic Employees (CUPE) Union Local 23.

5.0 BUDGET IMPLICATIONS AND TIMING CONSIDERATION

In some respects, this is an opportune time to implement an in-house electrical division. The staffing can be fine tuned and geared up as there will be a hiatus in the street light re-lamping program due to the HPS conversion.

On the basis of average actual 1991 and 1992 payments to our electrical contractors, we estimate that the total 1993 cost for both street lights and building electrical works, including materials and an allowance of internal administration, will just exceed \$1 million. We estimate that an in-house service could be carried out at no greater an operating cost than contracting out.

Given the uncertainty surrounding the accommodation issue and the need to familiarize new staff with existing plant, a phased approach to implementation is proposed. At this stage only a new supervisory position would be included in our 1993 Annual Budget, for the latter half of the year. The supervisor would initially plan for and coordinate a phased operational implementation commencing in 1994.

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6.0 DISCUSSION/CONCLUSION

The City currently contracts for street light and traffic signal maintenance and pays for building and parks electrical maintenance under purchase orders. Current contractors provide these services in a competitive manner. City forces would be able to provide an equivalent level of service with greater control of costs and management. Because of the recent renewal of the street lighting plant during the lighting conversions, there are timing advantages to an early phased implementation of an in-house service. With the phased approach that has been proposed, it would be necessary to continue with contracted services through 1993 and the in-house service would be phased-in during 1994. Initially the in-house service may have to be augmented by outside contracting to handle unalterable peaks in demand.


DIRECTOR ENGINEERING

PL:jb/mp

cc: Director Finance
Director Admin. & Community Services
Director Recreation & Cultural Services
CUPE Local 23

