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DATE 21 May 1996

TO/DEST. Co-ordinator
 Planning and Environment Committee

FROM/EXP. Environment and Transportation Commissioner

SUBJECT/OBJET **ROBERT O. PICKARD ENVIRONMENTAL CENTRE
DIGESTER GAS COGENERATION FACILITY**

DEPARTMENTAL RECOMMENDATION

That the Planning and Environment Committee recommend Council approve:

- 1. The establishment of a Cogeneration Facility Capital Project at the Robert O. Pickard Environmental Centre in the amount of \$3,800,000.**
- 2. The transfer of funds in the amount of \$3,800,000 from the Sewer Capital Reserve Fund.**

BACKGROUND

The Robert O. Pickard Environmental Centre (ROPEC) has been operating since late 1992. In the course of the plant operation, staff have identified numerous opportunities for optimization and operational savings. Since start up of the secondary treatment process, production rates of digester gas have been significantly above what was originally anticipated. One of the major opportunities identified for savings has been better utilization of digester gas with the generation of electric power from this resource.

INTRODUCTION

The Environment and Transportation Department staff planned to include the Cogeneration Facility as a 1997 project. However, given the attractiveness of the savings, staff are requesting that Committee recommend that Council approve the establishment of this project immediately.

DISCUSSION

A feasibility study has confirmed that the construction of a Cogeneration Facility at ROPEC would be a positive benefit. The facility is estimated to cost \$3,800,000 to construct but will result in annual savings of approximately \$685,000 in power costs. This represents a 25% savings in the \$2.7M annual hydro budget at the Robert O. Pickard Environmental Centre. The resulting discounted payback period is between five and six years. This is an extremely attractive option that will result in significant long term savings for the Regional Municipality of Ottawa Carleton. The economic analysis is obviously dependent on the actual tender price being close to the estimate used for the analysis. The economics will be reviewed again as part of any construction contract award.

In April 1996, Council approved an increase in scope to contract CG-164 with CH2M Gore and Storrie to provide engineering design services for a Cogeneration Facility at ROPEC. Given our current schedule, the project team will be in a position to tender the first contract in June 1996. The first contract to be tendered would be an equipment supply contract in order to accommodate long equipment delivery times. The civil site works contract would be tendered in late 1996 or early 1997.

Given the significant cost savings to the Regional Municipality of Ottawa-Carleton (\$13,000.00/week), it is recommended that a project authority of \$3,800,000 from the sewer reserve funds be established to permit this.

CONSULTATION

Public consultation is not applicable to this assignment.

EXPENDITURE JUSTIFICATION

A detailed economic analysis has shown the most cost effective use of this energy source was the construction of a Cogeneration Facility. While the capital cost of the facility is estimated to be \$3,800,000, the annual savings of \$685,000 result in a discounted payback period of between five and six years. The substantial long-term benefits to the RMOC do justify the capital investment.

Approved
M.J.E. Sheflin, P.Eng.

SF/jb

FINANCE DEPARTMENT COMMENT

Funds in the amount of \$3,800,000 are available for transfer from the Sewer Capital Reserve Fund to finance the cost of this project.

Approved by T. Fedec
on behalf of the Finance Commissioner