



Corporate Report

2005

NO: R032

COUNCIL DATE: February 21,

REGULAR COUNCIL

TO: **Mayor and Council** DATE: **February 17, 2005**

FROM: **General Manager, Planning and Development** FILE: **0800-01**

SUBJECT: **Award of Contracts for Installing New Energy Efficiency Features in Various Civic Facilities**

RECOMMENDATION

The Planning and Development Department recommends that Council:

1. Receive this report as information; and

2. Authorize staff to enter into a contract with each of the following firms at the indicated base contract price, excluding GST, for the installation of energy efficient features in various civic buildings:
 - Custom Air Conditioning Ltd. \$ 47,000
 - Quantum Lighting Inc. \$225,111
 - Twin Maple \$ 82,298
 - ESC Energrated \$168,808

PURPOSE

The purpose of this report is to obtain Council approval to award four separate contracts in relation to implementing Phase 1 of an energy management program in four civic buildings.

BACKGROUND

This Energy Management project started in late 1999. An inter-Departmental Energy Management Committee was formed to investigate and compile a list of possible "energy saving" improvements to City-owned facilities. This led to several improvements being made to facilities that saved energy and resulted in cost savings to the City. These improvements were only undertaken where there was a reasonable payback period for the costs that were incurred in installing the energy saving features.

In July 2002, the City became a Power Smart Partner with BC Hydro and an Energy Innovator Partner with Natural Resources Canada (NRCan), which positioned the City for funding under the BC Hydro ESO (Energy Savings Opportunity) Program and various federal energy management programs.

In September 2004, the City retained the services of a BC Hydro-approved energy consultant to review energy audits that were prepared by City staff between 2000 to 2003, for various civic facilities throughout the City and to develop an energy management plan that would include projects that demonstrated a reasonable payback through energy cost savings. The intention was to bundle the identified projects for consideration of funding by BC Hydro and federal programs aimed at reducing energy consumption.

The energy management plan has been completed and includes a variety of improvements, such as upgrades to lighting systems and the installation of low energy ceilings, direct digital controls (DDCs), which controls, energy efficient variable speed drives on pumps and compressors and pony motors that work in place of larger motors during periods of low demand.

DISCUSSION

This report addresses the first bundle of projects that are proposed to be implemented under the City's energy management plan. These projects will be implemented in four different civic facilities. The projects have been tendered with the low tender prices secured until the end of February 2005. The projects include:

1. Upgrading of **interior lighting systems** in RCMP Main Office building, Newton Arena, Cloverdale Arena and North Surrey Recreation Centre;
2. Installation of **low energy ceilings** in the Newton, Cloverdale and North Surrey Arenas;
3. Mechanical upgrades including the installation of **pony motors and variable speed drives** on compressors and/or pumps in the RCMP Main Office building, Newton Arena, Cloverdale Arena and North Surrey Recreation Centre; and
4. The installation of **direct digital control systems** in each of these same facilities (This project was not tendered, but rather a price was solicited from ESC Energrated as their systems are installed in all civic buildings as a standard for ease of maintenance).

The projects are listed along with their costs and expected energy cost savings in Appendix II.

The projects have been tendered as four separate contracts, as indicated in Appendix I. The low tender for each contract has been selected. The total combined base amount of the tenders is \$523,217. This amount will be cost shared with BC Hydro, who has approved a contribution of \$166,000 toward the projects and with NRCan, who has approved a contribution of approximately \$29,000. On this basis, the City's share of the costs is \$327,834. The payback period on the total amount being invested is estimated at 7.5 years (based on 2004 energy rates) and if only the City's portion is considered, the payback to the City is approximately 4.8 years. The payback period will be further reduced with increases in energy rates that will likely occur over the next 4 years. The energy savings that will be recognized through the implementation of the Phase 1 projects are estimated at approximately \$70,000 per year, based on 2004 energy rates.

Funding for the City's share of the costs (\$327,834) is available in the approved 2005 Budget.

CONCLUSION

Based on the above, it is recommended that Council authorize staff to enter into a contract with each of the following firms at the indicated base contract price, excluding GST, for the installation of energy efficient features in various civic buildings:

- | | |
|--------------------------------|-----------|
| • Custom Air Conditioning Ltd. | \$ 47,000 |
| • Quantum Lighting Inc. | \$225,111 |
| • Twin Maple | \$ 82,298 |
| • ESC Energrated | \$168,808 |

Original signed by

Murray Dinwoodie

General Manager

Planning and Development

JLL:saw

Attachments:

Appendix I – List of Project/Firms

Appendix II – List of Projects and Expected Energy Cost Savings

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Appendix I

List of Projects, Firms that Bid and Low Tender for Each Project**Base Amount****Pumps and Variable Speed Drives (Mechanical):**

Low tender: Custom Air Conditioning Ltd. \$ 47,000.00

Other firms who submitted a tender:

- Esc Energrated Systems
- Coral Engineering Limited

Lighting Systems:

Low Tender: Quantum Lighting Inc. \$225,111.00

Other firms who submitted a tender:

- BCF
- OSRAM

Low E Ceilings:

Low Tender: Twin Maple \$ 82,298.00

Other firm who submitted a tender:

- Trico

DDC Systems:

Tender: ESC Energrated \$168,808.00

*No other firms were invited to quote as ESC systems

have been installed in all civic buildings as a standard
for ease of maintenance.

Total Cumulative Base Contract Amount

\$523,217.00

Appendix II

List of Projects and Expected Energy Cost Savings

| Projects | Total Project Cost | Annual Savings | City Funding | Other Funding |
|---|---------------------------|-----------------------|---------------------|----------------------|
| RCMP Main Office | \$161,193.00 | \$29,253.00 | \$77,832.00 | \$83,361.00 |
| Cloverdale Arena | \$116,663.00 | \$9,709.00 | \$92,878.00 | \$23,785.00 |
| Newton Arena | \$96,287.00 | \$11,046.00 | \$66,312.00 | \$29,975.00 |
| North Surrey Recreation Centre | \$149,074.00 | \$19,725.00 | \$90,812.00 | \$58,262.00 |
| Total | \$523,217.00 | \$69,733.00 | \$327,834.00 | \$195,383.00 |
| Projected Average Payback Period for Bundle #1 | | 4.8 Years | | |

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