



OFFICE OF THE VICE PRESIDENT BUSINESS AFFAIRS

TO: Planning and Budget Committee

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DATE: February 9 for February 28, 2006

AGENDA ITEM: 6

**ITEM IDENTIFICATION:**

**Project Planning Committee Report for the Energy Efficiency Project on Lighting Retrofit and Chiller Replacement**

**JURISDICTIONAL INFORMATION:**

The Planning and Budget Committee considers reports of project planning committees and recommends to the Academic Board approval in principle of infrastructure renewal projects with a projected cost of more than \$2 million (i.e. site, space plan, overall cost and sources of funds).

**PREVIOUS ACTION TAKEN:**

The terms of reference for the project planning committee were submitted to the Planning and Budget Committee on December 6, 2005 for information.

**HIGHLIGHTS:**

Eighteen large water chillers using ozone layer damaging chlorofluorocarbon refrigerant remain in use on campus. Some exceed their rated service life by 20 years and have experienced an increasing frequency of breakdowns in the past three years. Failure of these primary components of the air conditioning system would disrupt the teaching and research activities in many buildings and could lead to large fines in the event of a discharge of refrigerant to the atmosphere while modern replacement equipment would be environmentally-friendly and would use 30% less electricity.

At the same time, three major buildings still use inefficient T-12 fluorescent lights, many of which have ballasts containing PCBs. Retrofitting the lights with T-8 technology would improve reliability and safety and would result in substantial energy savings. Moreover, if the lighting and chiller projects are combined, significant government incentives can be obtained in addition to the cost savings from lowered electricity use.

## **FINANCIAL AND/OR PLANNING IMPLICATIONS:**

In order to avert failure of elements of the campus infrastructure critical to the ongoing academic mission, a substantial capital investment is required now. Energy savings associated with the renewal allow the structuring of a sustainable funding plan.

## **RECOMMENDATION:**

Be It Recommended to the Academic Board:

That the Project Planning Report for the St. George Campus Cooling Infrastructure Upgrade and Major Lighting Retrofit Project be approved in principle at an estimated total project cost of \$19.87 million, with sources of funding as follows:

NRCan grant	\$ 0.25-million
Toronto Hydro grant	0.68-million
Facilities Renewal funds	2.00-million
Interest-free loan from the City of Toronto Better Buildings Partnership to be repaid by the operating budget from energy savings	3.05-million
Debt financing to be repaid by the operating budget from energy savings	13.89-million