



University of Toronto

CAPITAL PROJECTS DEPARTMENT

TO: Business Board

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DATE: September 23, 2005 for October 11, 2005

AGENDA ITEM: 11(b)

ITEM IDENTIFICATION:

**Capital Project Report – UTSC, Electrical & Mechanical Infrastructure Upgrades, Phase 4
New Mechanical Chiller**

JURISDICTIONAL INFORMATION:

Pursuant to Section 5.2. (b) of its Terms of Reference, the Business Board approves expenditures for, and the execution of, approved Capital Projects.

PREVIOUS ACTION TAKEN:

This is the first time this Project is being presented to the Business Board.

Other Board and Committee approvals to-date include:

- Academic Board - October 6, 2005
- Planning and Budget – September 22, 2005

HIGHLIGHTS:

Numerous infrastructure needs related to both the electrical and mechanical systems at UTSC have required urgent attention in the past 30 months. Extensive construction has occurred on the UTSC campus with each of the new major buildings requiring adequate electrical and mechanical services to ensure effective operation. A considerable portion of these expenditures relate to the additional demands of the new buildings as well as the replacement of systems that partially address deferred maintenance issues. It is to be noted that this project comprises a number of phases that need to be addressed in a timely manner to avoid the disruption of services

to the campus. Each of the phases have been isolated as an independent project that contributes to the overall infrastructure at UTSC.

A multi-phase plan prepared by UTSC identified a defined set of high priority projects that required immediate attention. All projects in the planned schedule to the present time that cost less than \$2 million dollars have been approved by the Accommodation and Facilities Directorate. These projects identified as Phases 1A, 1B, 2A and 2B respectively are tabulated below and have been approved through AFD.

<u>AFD Approval</u>	<u>Phase</u>	<u>Project Title</u>	<u>Cost of the Project</u>
May 9, 2003	Phase 1A	Electrical Distribution Switch	\$451,000
January 30, 2004	Phase 1B	De-aerator for Heating/Asbestos	\$1,675,000
January 30, 2004	Phase 2A	Electrical Distribution and Indoor/ Outdoor Switchgear Replacement	\$1,660,000
January 30, 2004	Phase 2B	Mechanical Infrastructure – New Boiler/Asbestos	\$1,505,000

Approval of Phase 3, Cooling Towers, costing \$2,515,000 was approved by the Business Board on February 28, 2005 since the projected cost exceeded the \$2 million limit for projects considered by AFD.

Phase 4 of UTSC’s multi-phase plan provides for the removal and replacement of the existing 700 ton chiller with a new 1700 ton chiller. The estimated cost for this work is \$2.919m. Sources of funding are Facilities Renewal Program \$200,000; Operating Deferred Maintenance Account \$2,719,000.

FINANCIAL AND/OR PLANNING IMPLICATIONS:

UTSC has already directed a total of \$7,806,000 towards Phases 1, 2 and 3 of the initially projected \$17.351 million infrastructure upgrades plan at UTSC. The new chillers, Phase 4, will require an additional \$2,919,000. The funds for Phase 4 are to be derived from Deferred Maintenance Funds and from the Facilities Renewal Program to be allocated to UTSC for 2005-06 and 2006-07.

<u>Account</u>	<u>2005-2006</u>	<u>2006-2007</u>	
FRP		\$ 200,000	\$ 200,000
Deferred Maintenance Funds	\$1,204,809	\$1,514,191	<u>\$2,719,000</u>
Total			\$2,919,000

The implementation of Phase 4 reduces the overall number of phases of infrastructure upgrades from seven to six, and reduces the projected total cost of the upgrades of \$17.351 million by \$1.607 million to \$15.672 million. These changes are possible because Phase 4 now replaces a CFC chiller unit replacement previously scheduled for Phase 7 at a slight decrease to costs projected initially. Approval of the project is required now to allow for the purchase of the

chiller which requires considerable lead time. The work will be implemented in the 2006-07 fiscal year.

With respect to the impact on the Capital Plan expenditures, no borrowing of funds have been directed to this phase of the project or the previous phases. The need for these infrastructure upgrades is absolutely necessary to support the new buildings at UTSC addressed within the Capital Plan.

RECOMMENDATIONS:

Be It Resolved

Subject to Governing Council approval in principle of the project,

THAT the Vice-President, Business Affairs be authorized to execute the University of Toronto at Scarborough Electrical and Mechanical Infrastructure Upgrades Phase 4: New Chiller project at a total project cost not to exceed \$2,919,000, with funding from the following sources:

- i) Deferred Maintenance Funds allocation to UTSC in 2005-06 in the amount of \$1,204,809
- ii) Facilities Renewal Program allocation 2006-07 in the amount of \$200,000 and
- iii) Deferred Maintenance Funds allocation to UTSC in 2006-07 in the amount of \$1,514,191.