Agenda - Executive Policy Committee – October 12, 2011

Report - Standing Policy Committee on Property and Development – October 4, 2011

Item No. 1 Green Building Policy for Existing City-owned and leased Buildings

STANDING COMMITTEE RECOMMENDATION:

On October 4, 2011, the Standing Policy Committee on Property and Development submitted the following to Council:

1. That an extension of time of 30 days be granted to report back to Council on a Green Building Policy for existing civic buildings.

2. That the Proper Officers of the City be authorized do all things necessary to implement the intent of the foregoing.

Agenda - Executive Policy Committee – October 12, 2011

Report - Standing Policy Committee on Property and Development – October 4, 2011

DECISION MAKING HISTORY:

STANDING COMMITTEE RECOMMENDATION:

On October 4, 2011, the Standing Policy Committee on Property and Development recommended that an extension of time of 30 days be granted to report back to Council on a Green Building Policy for existing civic buildings and the matter be forwarded to the Executive Policy Committee and Council.

COUNCIL DECISION:

On March 23, 2011, Council concurred in the recommendation of the Standing Policy Committee on Property and Development and adopted the following:

1. That the Winnipeg Public Service be granted an extension of time of an additional 180 days to report back to Council with a Green Building Policy for existing civic buildings in order that the policy can be:

    A. Supported by a research-based strategy:

    B. Coordinated with the comparable policy currently being developed by the Province of Manitoba.

2. That the Proper Officers of the City be authorized do all things necessary to implement the intent of the foregoing.

ADMINISTRATIVE REPORT

Title: **Green Building Strategy - Existing City-Owned Buildings**

Critical Path: **Standing Policy Committee on Property and Development – Executive Policy Committee - Council**

AUTHORIZATION

Author	Department Head	CFO	CAO
P. Regan	B. Thorgrimson	N/A	D. Joshi Chief Operating Officer

RECOMMENDATIONS

1. That, by June 30, 2012, the Winnipeg Public Service implement a green existing building strategy based on the continuous improvement of building environmental and energy performance, through energy and water-performance benchmarking exercise for City-owned and operated buildings over 3,000 square metres (33,000 square feet).
2. That, beginning with the 2013 budget process and annually thereafter, the Public Service bring forward strategic recommendations, using benchmarked data, for actions/investments to improve the environmental and energy performance of existing buildings – including potential capital improvements, new tools and funding mechanisms, and/or third party green building certifications.
3. That the Public Service continue to dialogue with the Province of Manitoba on green building policy coordination.
4. That the proper Officers of the City do all things necessary to implement the intent of the foregoing.

REASON FOR THE REPORT

A Green Building Policy for New City-owned Buildings and Major Additions was adopted by Council on July 21, 2010. Included in the report recommending the policy was an additional recommendation that a complementary Green Building Policy for existing civic buildings be prepared, and that the Public Service Report back within 120 days.

On March 23, 2011, Council concurred in the recommendation of the Standing Policy Committee on Property and Development:
1. That the Winnipeg Public Service be granted an extension of time of an additional 180 days to report back to Council with a Green Building Policy for existing civic buildings in order that the policy can be:
    A. Supported by a research-based strategy:
    B. Coordinated with the comparable policy currently being developed by the Province of Manitoba

IMPLICATIONS OF THE RECOMMENDATIONS

Policy Implications:
The City of Winnipeg owns or leases at least 600 buildings, the majority of which are more than 30 years old.
The age and variety of existing City-owned buildings means that:

- HVAC equipment has outlived its practical life
- Many were built to outmoded building codes/standards
- Many lack contemporary control systems
- Some have changed use over time
- Some contain hazardous materials such as asbestos or lead paint

The achievement of City sustainability objectives including leading by example and reduction of corporate GHG emissions will benefit from striving to enhance the performance of existing buildings.
A Continuous Improvement Approach:
The challenge of making existing buildings “green” is not unique to the City of Winnipeg. Unlike new construction (where most design decisions are made at one time, using new materials), the wider variety of situations encountered when retrofitting a building, as well as the nature of building improvements, requires an approach that is ongoing and that focuses on continuous improvement rather than on specific design strategies. These challenges make it difficult to define a green building policy or standard that is based on design specifications.

To date, no single system or standard relating to “greening” existing buildings has dominated the market the way the LEED standards for new construction developed by the US and Canada Green Building Councils have (in North America). Common green standards/systems for existing buildings used in Canada are BOMA BESt (Building Environmental Standard), LEED Canada EB O&M (Operations and Maintenance), LEED GREEN UP, and Green Globes. As well, building portfolio environmental management tools have been developed by Energy Star (US Environmental Protection Agency) and are being researched by Natural Resources Canada. The City of Winnipeg has previously worked with BOMA BESt (City Hall complex is being recertified and previously achieved Level 1 Certification). Additionally, BOMA BESt certification costs are lower than other comparable standards. An overview of BOMA BESt is attached (Attachment A).

The Province of Manitoba is currently developing a green building strategy, with supporting policy, for existing provincially-owned and operated buildings (initiated November 2010).
Based on Council's direction (July 2010), the City of Winnipeg has collaborated on research and dialogue with the Province. Although the Province has not yet completed policy development, work to date supports a continuous improvement approach.

Benchmarking is recognized as an existing building strategy best practice. By examining the actual energy and water performance of buildings and benchmarking results against other buildings in the same class (size and/or use) within the current City's portfolio; in other portfolios; or based on new construction, it is possible to recommend changes to building operation or capital projects that will have the highest environmental and economic return on investment. This set of actions/investments can be brought forward for Council's consideration as part of the annual budget process beginning in 2013, and could include recommendations for:

- green building certification (such as BOMA BESt) for key City buildings
- specific building renovation projects
- engaging building occupants in green building behaviors (such as turning off lights)
- the development of new tools or funding mechanisms (Green Revolving Fund for example - see Financial Implications below)

By concentrating on larger buildings (over 3,000 square metres) the City will capture its largest energy/water users, largest emitters and most populous workplaces. Robust utility information is available for these sites.

Environmental Implications:

The City of Winnipeg's corporate greenhouse gas (GHG) emissions are 54,624 tonnes of CO_{2e} (2007 inventory). Of this, 31% (16,679 tonnes) are emitted from buildings within Municipal Accommodations building inventory. The recommendations in this report will support Council's direction (September 2009) to achieve a further 20% reduction in corporate emissions.

Financial Implications:

The recommendations in this report can be completed within existing resources. However, in order to meet the Council-directed target of a further 20% reduction in corporate GHG emissions, some budget resources will be required to undertake the actions which will be brought forward through the budget process, per Recommendation 2.
Generally, improving building environmental and energy performance has a positive financial return. The simple payback varies from project to project, but many projects pay for themselves in about 7-10 years.

Potential Funding Mechanism:

As result of the Power Smart Agreement (PSAgreement) with Manitoba Hydro , utility savings from energy efficiency retrofits have been achieved by City of Winnipeg departments. A portion of these saving were used by Hydro to repay their original investment for these projects. The utility savings have been collected from the Departments by Corporate Finance. The PSAgreement will end at the end of August,

2012. This stream of utility savings, in excess of $900,000 annually, could be retained to establish an Energy Management Revolving Fund.

An Energy Management Revolving Fund (EMRF) would set aside funding for energy efficiency projects such as upgrades to lighting, heating, cooling and ventilation systems and envelope upgrades. The EMRF would lend lend Departments the fund required to undertake energy efficiency projects and be repaid through savings over a period of up to 8 to 10 years out of the utility savings achieved by the project. The funds repaid would be made available for additional energy projects. The City of Winnipeg could administer its own EMRF, explore extending its partnership with Manitoba Hydro or seek new/additional partners. This concept can be explored further as part of the annual action recommendations noted in Recommendation 2.

HISTORY

On February 2, 2010, Standing Policy Committee on Property and Development directed the Winnipeg Public Service to report back with a Green Building Policy within 120 days.

A Green Building Policy for New City-owned Buildings and Major Additions was adopted by Council on July 21, 2010. Included in the report recommending the policy was an additional recommendation that a complementary Green Building Policy for existing civic buildings be prepared, and that the Public Service Report back within 120 days.

On March 23, 2011, Council concurred in the recommendation of the Standing Policy Committee on Property and Development:
1. That the Winnipeg Public Service be granted an extension of time of an additional 180 days to report back to Council with a Green Building Policy for existing civic buildings in order that the policy can be:
    A. Supported by a research-based strategy:
    B. Coordinated with the comparable policy currently being developed by the Province of Manitoba

FINANCIAL IMPACT

Financial Impact Statement

Date: September 22, 2011

Project Name:

Green Building Policy – Existing City-owned Buildings

COMMENTS:

The recommendations in this report are: 1. That, by June 30, 2012, the Winnipeg Public Service implement a green existing building strategy based on the continuous improvement of building environmental and energy performance, through energy and water-performance benchmarking exercise for City-owned and operated buildings over 3,000 square metres (33,000 square feet).
2. That, beginning with the 2013 budget process and annually thereafter, the Public Service bring forward strategic recommendations, using benchmarked data, for actions/investments to improve the environmental and energy performance of existing buildings – including potential capital improvements, new tools and funding mechanisms, and/or third party green building certifications.
3. That the Public Service continue to dialogue with the Province of Manitoba on green building policy coordination.
4. That the proper Officers of the City do all things necessary to implement the intent of the foregoing.

While there will be financial implications associated with these recommendations (specifically, Recommendation # 2), the required budget adjustments are not reasonably determinable at this time.

"Original Signed By"
Mike McGinn, CA
Manager of Finance

CONSULTATION

In preparing this report there was consultation with:

Province of Manitoba – Infrastructure and Transportation
Planning, Property & Development - Municipal Accommodations Division

SUBMITTED BY

Planning, Property and Development Department
Planning and Land Use Division
Prepared by: Ian Hall, Environmental Coordinator
Date: September 29, 2011

File No: O:\Reports Directive\Planning and Land Use\Environment and Sustainability\Green Existing Buildings Strategy (11-09-08).doc

Attachment(s):

Attachment “A”: Overview of BOMA BESt

Attachment “A”

Overview: BOMA BESt
BOMA Canada is the Building Owners and Managers Association of Canada. BESt stands for Building Environmental Standards, and represents the direction of the commercial real estate industry in Canada and BOMA Canada's role in providing the mechanisms for common practices across the industry. With four possible levels of certification, users can progress through the program and continually use the framework of the Go Green Best Practices and the Go Green Plus assessment to improve environmental performance and management.

- All buildings certified to any level of BOMA BESt must meet the BESt Practices (see below).
- BOMA BESt is the leading environmental certification program for existing commercial buildings in Canada.
- Certification recognizes excellence in environmental management and performance through a benchmarking process
- BOMA BESt includes the minimum standard of practice for properties and recognizes higher levels of building operations and management through four levels of certification.
- Every building also undergoes an on-site verification by a third-party before it can achieve the certification.

BESt Practices:
A set of required practices in the areas of energy, water, waste reduction, emissions and effluents, indoor environment and environmental management systems. These best practices are primarily related to good portfolio management (e.g. conducting regular building audits) and to good corporate environmental responsibility (policies related to water conservation and use of ozone-depleting refrigerants).
BESt practice guide: http://www.bomabest.com/PDFs/BOMA%20BESt-%20Guide%20to%20Best%20Practices_March%202011_ENGLISH.pdf

Assessment and Scoring:
BOMA BESt is composed of 6 general areas that are assigned points totalling 1000.

	Basic Information	***Points***	***Weight***
1	Energy	350	35.0%
2	Water	80	8.0%
3	Waste Reduction & Site	110	11.0%
4	Emissions & Effluents	175	17.5%
5	Indoor Environment	175	17.5%
6	Environmental Management System	110	11.0%
		1000	100%

35% of available points are assigned based on Energy performance. There are 4 levels of BOMA BESt classifications based on a facility’s specific performance with BOMA BESt Level 4 being the best performing facilities.

	LEVELS		POINTS	
	From	To	From	To
BOMA BESt Level I	0%	69%	0	690
BOMA BESt Level II	70%	79%	700	790
BOMA BESt Level III	80%	89%	800	890
BOMA BESt Level IV	90%	100%	900	1000

Application Fees (Example – office building)

Building Size (square feet)	**Member Fee**	**Non-Member Fee**
Under 100,000 sqft	$ 1,500	$ 2,500
100,000 - 250,000 sqft	$ 2,000	$ 3,000
250,000 - 500,000 sqft	$ 2,500	$ 3,500
Over 500,000 sqft	$ 3,000	$ 4,000
Complex - 2 buildings	$ 4,000	$ 6,500
Complex - 3 buildings	$ 6,000	$ 7,500
Complex - 4 buildings or more	$ 7,000	$ 8,500