Agenda - Executive Policy Committee – December 7, 2011

Report - Standing Policy Committee on Property and Development – November 29, 2011

Item No. 10 Update to the Green Building Policy – New City-Owned Buildings and Major Additions

STANDING COMMITTEE RECOMMENDATION:

On November 29, 2011, the Standing Policy Committee on Property and Development concurred in the recommendation of the Winnipeg Public Service and submits the following to Council:

1. That the Green Building Policy – New City-Owned Buildings and Major Additions, be amended in accordance with Appendix 1, so as to:

    A. Enable more flexibility in terms of third-party verified, integrated design-based green building standards that fulfill the policy's requirements;

    B. Confirm a focus on energy performance and emissions reduction; and

    C. Clarify implementation responsibilities, including establishing a regular bi-annual review of the performance of the policy commencing on July 1, 2012.

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

Agenda - Executive Policy Committee – December 7, 2011

Report - Standing Policy Committee on Property and Development – November 29, 2011

DECISION MAKING HISTORY:

STANDING COMMITTEE RECOMMENDATION:

On November 29, 2011, the Standing Policy Committee on Property and Development concurred in the recommendation of the Winnipeg Public Service and submitted the matter to the Executive Policy Committee and Council.

ADMINISTRATIVE REPORT

Title: **Update to the Green Building Policy – New City-Owned Buildings and Major Additions**

Critical Path: **Standing Policy Committee on Property & Development → Executive Policy Committee → Council**

AUTHORIZATION

Author	Department Head	CFO	CAO
P. Regan	B. Thorgrimson	M Ruta CFO	D Joshi COO

RECOMMENDATIONS

That the City of Winnipeg amend the *Green Building Policy – New City-Owned Buildings and Major Additions*, attached as Appendix 1, to:

1. Enable more flexibility in terms of third-party verified, integrated design-based green building standards that fulfill the policy's requirements;
2. Confirm a focus on energy performance and emissions reduction; and
3. Clarify implementation responsibilities, including establishing a regular bi-annual review of the performance of the policy commencing on July 1, 2012.

REASON FOR THE REPORT

- On July 21, 2010, Council adopted the Green Building Policy – New City-Owned Buildings and Major Additions. This policy came into force on January 1, 2011.
- Amendments are suggested to clarify the goals of the policy while improving the cost-effectiveness of implementation.

IMPLICATIONS OF THE RECOMMENDATIONS

Policy Implications

- The recommended amendments **(changes, other than housekeeping, noted in blue/underline text in Appendix 1)** maintain the intent of the policy: leading by example in environmental, economic and social stewardship; reducing corporate greenhouse emissions.

Broadening Permitted Green Building Rating Systems:

- Under the amended policy, designers would have more flexibility in meeting requirements since more than one green building rating system is allowed. All rating systems are similar in the sense that they require a building to achieve credits (or "points") to be certified. The certification process involves a quality assurance audit by a third party. In some circumstances, it can be difficult and/or costly to incorporate design elements required to achieve the credits required by one system because of site or building peculiarities (and these particular credits may have, on their own, relatively little impact on

the overall "greenness" of the building). By allowing more than one system, it would facilitate the delivery of a high-performing green building more economically, on average.

- Allowed rating systems would be credible, third-party verified and use an integrated design process. The distinct requirement of a minimum energy performance standard maintains a focus on reducing operating costs and greenhouse gas emissions. This approach (permitting multiple standards, with an energy performance standard) has been used with success by other jurisdictions including the Province of New Brunswick.
- In addition to retaining the option of LEED Silver certification, the amended policy would allow Green Globes "3-Globe" (out of a scale of 5 Globes) Certification.
    - Green Globes is a green building rating system designed in Canada, which is now also used in the United States. It is managed by the Green Building Initiative (GBI), a not-for-profit organization whose mission is to accelerate the adoption of building practices that result in energy-efficient, healthier and environmentally sustainable buildings.
    - According to GBI, under Green Globes: *"If a building achieves at least 35% of the total number of 1,000 points, it qualifies for certification. Upon ordering the certification, a third-party Assessor appointed by the GBI begins to work with the owner and team during the assessment period which culminates in an on-site audit of the building. Green Globes rating and certification process can be completed for a fraction of the combined hard/soft costs and time associated with LEED. Green Globes is ideal for complex or specialty buildings that cannot be certified with LEED."*
    - Utilizing Green Globes also leverages the City's ability participate in the BOMA Best certification program (since the two systems are linked) to promote sustainability through environmentally sensitive operation of the building over its full life.

Clear Focus on Energy Performance:

- A minimum energy performance standard ensures that new buildings will have lower operating costs and that they will have comparatively lower greenhouse gas emissions (relative to a "standard" building).
- Manitoba Hydro's Power Smart New Buildings Program has incentives for new commercial buildings that are designed and built to be 33% more efficient than the Model National Energy Code of Canada for Buildings (MNECB 1997). Two program options are available; either 1) design or build according to a prescribed set of building specifications outlined in the Power Smart Design Standards, or 2) demonstrate the building's energy efficiency through energy modeling while incorporating integrated design and building commissioning practices.
- The MNECB 1997 was recently reviewed and updated to create the National Energy Code for Buildings (NECB). If the Province of Manitoba decides to adopt the NECB in whole or in part, the Power Smart New Buildings Program will be adjusted in order to continue to promote economic, energy efficient building design beyond code requirements. The NECB is currently out for comment and will be reviewed by the Building Standards Board within the next few months.
- The Province of Manitoba's Green Building Policy currently requires Power Smart designation for new provincially-funded buildings.

Clearer Responsibilities & Regular Review:

- The recommended amendments recognize that many new City-owned buildings/additions are delivered by departments or agencies outside of the Municipal Accommodations Division of Planning, Property and Development (as specified in the original policy); language has been generalized to apply to all City of Winnipeg project managers delivering building projects within the scope of this Policy.
- The green building sector (like construction technology in general and building codes) is continually evolving. A requirement for a biannual review will ensure that the City's policy remains current and delivers desired outcomes.

Environmental Implications

- The recommended amendments are not likely to have a significant effect on the environmental impacts associated with new buildings as compared to the former policy wording.
- Quality assurance would be maintained under the amended policy; third-party verification is still required.

Financial Implications

- There is no formula to calculate the capital cost premium with certainty for green projects, or to determine whether any premium will exist. Specific to the LEED rating system, the *US GSA LEED Cost Study*, by the U.S. General Services Administration concluded that:
    - A range of different strategies and costs can often be used to earn the same individual LEED credit
    - Multidisciplinary integrated design solution can significantly reduce the cost of achieving LEED credits
    - The costs of some credits vary significantly based on the building type, size and location
    - Costs to attain LEED certification according to a study by Gregory Kats show that the cost premium for a building certified to Silver standard varies from 0% to 5% of the total capital cost for the project.
- Integrated design, energy modeling and commissioning are relatively recent new building practices (some of which have become popular because of green building approaches). These practices can no longer be considered "green"-specific activities; they are now good/base practice and should not be looked at as constituting a cost premium. Nonetheless, a cost premium for green buildings may exist (for enhanced building systems and materials, and for project registration and certification). For this reason, the City of Winnipeg Green Building Policy for New City-owned Buildings and Major Additions (as adopted on July 21, 2010) directs Departmental Directors to factor in an additional 5% into the capital budget estimates for the design and construction of new City-owned buildings and major additions. This direction is maintained in the amended policy.
- The recommended amendments may have a positive financial impact on a project's initial capital cost (as compared to the original policy), in that they will enable a wider variety of green building strategies (some of which may be more cost effective on a case-specific basis) to be used to fulfill policy requirements and to leverage long term operating savings and improved program delivery.
- As well, the registration and certification costs associated with Green Globes are lower (approximately $3,500 - $23,000 total, calculated based on building size) than the comparable LEED costs (approximately $4,200 - $32,000 total, calculated based on building size).
- The amendments should provide more opportunity to successfully fulfill policy requirement at a lower cost premium.

HISTORY

- On July 21, 2010, Council adopted the Green Building Policy – New City-Owned Buildings and Major additions. This policy came into force on January 1, 2011.

FINANCIAL IMPACT

Financial Impact Statement **Date:** October 18, 2011

Project Name:

Update to the Green Building Policy – New City-Owned Buildings and Major Additions

COMMENTS:

The financial implications associated with the recommended amendments to the City's "Green Building Policy – New City-Owned Buildings and Major Additions" are not determinable with reasonable certainty due to the myriad of factors involved in any specific project. However, the amendments should provide more opportunity to successfully fulfill policy requirements at a lower cost premium.

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

CONSULTATION

In preparing this report there was consultation with:

Manitoba Hydro

SUBMITTED BY

Department:	Planning, Property & Development
Division:	Urban Planning
Prepared by:	Ian Hall, Environmental Coordinator
Date:	October 20, 2011
File No.	O:\Reports Directive\Planning and Land Use\Environment and Sustainability\Green Building Policy Update (11-10-14).doc

Appendix 1:

City of Winnipeg Green Building Policy – New City-owned Buildings and Major Additions

Originally adopted July 21, 2010 (effective January 1, 2011)
Amended [TO BE REPLACED WITH DATE OF ADOPTION]

Effective Date: January 1, 2011 (amendments effective [TO BE REPLACED WITH DATE OF ADOPTION])

Policy Statement

The City of Winnipeg (the "City") is committed to leading by example in environmental, economic and social stewardship, by ensuring that new City-owned* buildings and major additions be designed and constructed to achieve minimum energy performance, and to achieve certification in accordance with a credible, third-party verified, integrated design-based green building standard.

*In this policy, City-owned buildings refers to buildings used to deliver municipal services, that are owned outright by the City of Winnipeg as well as those acquired under capital lease arrangements and/or developed under other arrangements such as but not limited to public-private partnerships.

Purpose

The purpose of this policy is to ensure that City-owned new facilities and major new additions are designed, constructed and operated to a high standard of performance in environmental, economic and social sustainability. In this way, the City will display civic leadership in support of the City of Winnipeg's vision:

Living and caring because we plan on staying.

The Policy will:

- Fulfill the commitment to the development of Green Building Standards outlined in *A Call to Action for OurWinnipeg;*
- Demonstrate leadership in terms of sustainable design and encourage all development within the city to follow the principles set out in this policy;
- Reduce operating costs to the City through the use of improved energy and water efficiency and storm water management;
- Reduce landfill requirements by encouraging the reuse and recycling of construction, renovation and demolitions other solid waste materials (which in turn closes the loop by encouraging the use of materials that contain recycled content);
- Promote a safe, healthy and productive place for employees and visitors

Policy Requirements

All newly constructed City-owned buildings and major additions with a footprint greater than 500 square meters (5,400 square feet) shall:

1. Be certified by one of the following green building standards:
    a. LEED® (Leadership in Energy and Environmental Design) Certification at the Silver level or better;
    b. Green Globes Design™ at the 3 Globes level or better;

   c. Other such third-party verified standards deemed to fulfill the Policy intent by the Chief Administrative Officer or designate.
2. Deliver improved energy performance and be certified by the Manitoba Hydro Power Smart New Buildings Program;
3. Utilize life-cycle costing to ensure maximum value of projected capital and operating costs & savings in financial decision-making and reporting;
4. Include in the design team an expert in green building and integrated design with a defined minimum level of project experience of similar scope and scale to ensure performance and cost effective implementation of this policy.

Application

This policy applies to all employees involved in the design and construction of new City-owned buildings and major additions with a footprint greater than 500 square meters (5,400 square feet).

Exemptions

No new City-owned buildings or major additions with a footprint greater than 500 square meters (5,400 square feet) will be exempt from this Policy without an audit supporting an exemption. Exemptions may be considered where a building/addition is not planned to be inhabited, is temporary, or can be shown to be incompatible with this Policy.

Review

The performance of this policy will be reviewed biannually, beginning July 1, 2012.

Responsibilities

Chief Financial Officer:

Will be responsible to ensure that project budgets contain the 5% investment funding required to support the delivery of green building projects.

Chief Operating Officer, Departmental Directors and Chiefs:

Will be responsible to support and promote projects governed by this policy.

Project Managers implementing individual projects governed by this policy:

Will be responsible for:

- Achieving and documenting compliance with all policy requirements herein;
- Ensuring that all RFP and tender documents identify the requirement to have project compliance with this Policy;
- Ensuring that the required documentation for green building standard registration and certification are compiled and submitted at the appropriate interval(s) during the project.

Environmental Coordinator:

Will be responsible for reporting on greenhouse gas emission reductions associated with City-owned green buildings on an ongoing basis; communicating the policy within the organization; and performing a biannual policy performance review.

Monitoring/Contraventions

Failure to comply with the requirements of the contract language will be administered through the legal avenues provided within each contract.