Agenda – Council – September 25, 2025

Report – Standing Policy Committee on Property and Development – September 12, 2025

Item No. 7 Graham Avenue District Energy System Feasibility Study (Fort Rouge-East Fort Garry Ward)

STANDING COMMITTEE RECOMMENDATION:

On September 16, 2025, the Executive Policy Committee concurred in the recommendation of the Standing Policy Committee on Property and Development and submitted the following to Council:

1. That the City accept grants from Efficiency Manitoba and the Federation of Canadian Municipalities in the amount of up to $200,000 each funded through the Innovation Fund Technology Stream (EM) and the Community Energy Systems fund (FCM) for the purpose of hiring a consultant(s) or consulting group to conduct a business case and feasibility study for a district thermal energy system along Graham Avenue.

2. That the City enter into, execute and deliver a funding agreement with Efficiency Manitoba and the Federation of Canadian Municipalities and such other agreements as determined necessary by the City Solicitor / Director of Legal Services to implement the intent of the foregoing (the "Ancillary Agreements").

3. That authority be delegated to the Director of Planning, Property and Development to negotiate and approve the terms and conditions of the funding agreement and the Ancillary Agreements, in accordance with this report and such other terms and conditions deemed necessary by the City Solicitor / Director of Legal Services to protect the interest of the City.

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

Report – Standing Policy Committee on Property and Development – September 12, 2025

DECISION MAKING HISTORY:

EXECUTIVE POLICY COMMITTEE RECOMMENDATION:

On September 16, 2025, the Executive Policy Committee concurred in the recommendation of the Standing Policy Committee on Property and Development and submitted the matter to Council.

STANDING COMMITTEE RECOMMENDATION:

On September 12, 2025, 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: Graham Avenue District Energy System Feasibility Study

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

AUTHORIZATION

Author	Department Head	CFO	CAO
J. Veitch	H. Borys	T. Graham	J. Dunford

EXECUTIVE SUMMARY

The Public Service recommends that the Public Service enter into a funding agreement with Efficiency Manitoba (EM) and the Federation of Canadian Municipalities (FCM) to accept two grants of $200,000 each. The grants will be used to hire a consultant to conduct a business case and feasibility study to determine the viability of a district thermal energy system along Graham Avenue.

These grants are part of the Innovation Fund Technology Stream (EM) and the Community Energy Systems fund (FCM).

RECOMMENDATIONS

1. That the City accept grants from Efficiency Manitoba and the Federation of Canadian Municipalities in the amount of up to $200,000 each funded through the Innovation Fund Technology Stream (EM) and the Community Energy Systems fund (FCM) for the purpose of hiring a consultant(s) or consulting group to conduct a business case and feasibility study for a district thermal energy system along Graham Avenue.

2. That the City enter into, execute and deliver a funding agreement with Efficiency Manitoba and the Federation of Canadian Municipalities and such other agreements as determined necessary by the City Solicitor / Director of Legal Services to implement the intent of the foregoing (the “Ancillary Agreements”).

3. That authority be delegated to the Director of Planning, Property and Development to negotiate and approve the terms and conditions of the funding agreement and the Ancillary Agreements, in accordance with this report and such other terms and conditions deemed necessary by the City Solicitor / Director of Legal Services to protect the interest of the City.

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

REASON FOR THE REPORT

Council approval is required for the acceptance of grants from Efficiency Manitoba and the Federation of Canadian Municipalities.

IMPLICATIONS OF THE RECOMMENDATIONS

A grant agreement between the City, Efficiency Manitoba and the Federation of Canadian Municipalities will set out the funding arrangements and such other responsibilities of the parties to complete the Graham Avenue Feasibility Study. No additional City funding is being requested.

DISCUSSION

With the rerouting of buses off Graham Avenue onto alternative roadways, the City has been presented with an opportunity to re-imagine Graham Avenue to be more pedestrian focused. The City of Winnipeg has recently launched a temporary animation of the street with a focus on four blocks that is closed to vehicular traffic. This pilot project is part of an overall goal of full reconstruction of the street.

The redesign of Graham Avenue presents an opportunity to consider a ground source district thermal energy system to help the City of Winnipeg and Province of Manitoba toward reaching its climate change objectives and overall energy transition. Manitoba's electricity grid is expected to be strained by peak energy demand during cold winter days in the near future with district thermal energy assisting to reduce peak demand. The City also aims to reduce greenhouse gas (GHG) emissions.

Graham Avenue has some unique characteristics, such as area ways beneath the street and sidewalks that either extend the subterranean floor area of adjacent buildings and/or connect across the street. Some of these spaces need substantial repair and/or reconstruction, as does the street surface and sidewalks above. The future Graham Avenue reconstruction presents an opportunity to reimagine both surface and subterranean features and infrastructure.

As part of a district thermal energy system, two main technologies could be explored: heat recovery systems and ground source energy. The intent is to leverage heat recovery opportunities, and share excess thermal energy via a thermal network, aggregating the load requirements of existing buildings, integrating existing systems while also exploring the introduction of a geothermal system to augment the overall system and to provide a battery for excess thermal energy to be stored and used at another time.

The subject area has several large buildings with consolidated ownership, including the City, Manitoba Public Insurance, Manitoba Hydro, True North Sports and Entertainment, the Royal Winnipeg Ballet, the Women's Health Clinic, and Southern Chief's Organization. These stakeholders have expressed their interest to be included in the feasibility study as potential users/suppliers of energy to the district system.

There are also other private buildings, the potential rehabilitation of historic buildings, and the redevelopment of surface parking lots that could be included in the feasibility study as potential opportunities. These stakeholders will also be invited to participate.

That the City accept grants from Efficiency Manitoba and the Federation of Canadian Municipalities in the amount of up to $200,000 each funded through the Innovation Fund Technology Stream (EM) and the Community Energy Systems fund (FCM) for the purpose of hiring a consultant(s) or consulting group to conduct a business case and feasibility study for a district thermal energy system along Graham Avenue.

Accordingly, the Public Service intends to conduct a technical and economic feasibility study for the implementation of a ground source district thermal energy system along Graham Avenue. The feasibility study will be informed by current energy consumption data of existing properties, and potential future demand growth driven by development. The study would investigate how best to connect existing properties and adapt their HVAC systems now or in the future.

It will also explore how a district system could be expanded in the future with other buildings outside of the initial study area such as the University of Winnipeg, YMCA, Portage Place through potential linkages to other nearby streets in the downtown core once they are scheduled for reconstruction.

Funding for this study is available from Efficiency Manitoba (EM) and the Federation of Canadian Municipalities (FCM) in the amount of up to $200,000 each, funded through the Innovation Fund Technology Stream (EM) and the Community Energy Systems fund (FCM).

While ground source energy is recognized as a potentially attractive foundational technology for this district system, due to the high efficiency and demand reduction benefits, the feasibility study would look to maximize the use of heat recovery opportunities. It may also include additional technologies for peaking or thermal balancing purposes (e.g. supplemental air source heat pumps or boilers).

Overall, the study will characterize which technologies would be best utilized, which locations are best suited to site heat recovery systems and/or geothermal infrastructure. The study will also include investigation of options for governance, ownership, metering and billing of the district system.

FINANCIAL IMPACT

Financial Impact Statement

Date: July 28, 2025

Project Name:

First Year of Program **2026**

Graham Avenue District Energy System Feasibility Study

	2026	2027	2028	2029	2030
Capital					
Capital Expenditures Required	$ -	$ -	$ -	$ -	$ -
Less: Existing Budgeted Costs	-	-	-	-	-
Additional Capital Budget Required	$ -	$ -	$ -	$ -	$ -
Funding Sources:					
Debt - Internal	$ -	$ -	$ -	$ -	$ -
Debt - External	-	-	-	-	-
Grants (Enter Description Here)	-	-	-	-	-
Reserves, Equity, Surplus	-	-	-	-	-
Other - Enter Description Here	-	-	-	-	-
Total Funding	$ -	$ -	$ -	$ -	$ -
Total Additional Capital Budget Required	$ -				
Total Additional Debt Required	$ -				
Current Expenditures/Revenues					
Direct Costs	$ 400,000	$ -	$ -	$ -	$ -
Less: Incremental Revenue/Recovery	-	-	-	-	-
Net Cost/(Benefit)	$ 400,000	$ -	$ -	$ -	$ -
Less: Existing Budget Amounts	400,000	-	-	-	-
Net Budget Adjustment Required	$ -	$ -	$ -	$ -	$ -

Additional Comments: Direct costs represent consultant services expenditures to undertake the proposed studies while incremental revenues consist of a $200,000 grant from each of FCM and Efficiency Manitoba. No incremental City funding is required.

Mike McGinn July 28, 2025

Mike McGinn, CPA, CA
Manager of Finance

CONSULTATION

This Report has been prepared in consultation with:

- Public Works
- Legal Services

OURWINNIPEG 2045 POLICY ALIGNMENT

OurWinnipeg 2045 Goal: Environmental Resilience

Objective 1: Prioritize the transition to resilient, low-carbon future through demonstrated organizational and community leadership, and collaborative actions that mitigate and adapt to a changing climate.

Objective 3: Promote low-carbon, energy-efficient buildings through low-energy building design, construction and retrofitting.

OurWinnipeg 2045 Goal: Economic Prosperity

Objective 2: Advance strategic economic opportunities through a focus on innovation.

OurWinnipeg 2045 Goal: City Building

Objective 1: Responsibly plan, prioritize and accommodate growth in areas that best support Complete Communities principles, to achieve this Plan's sustainable development goals.

Objective 2: Integrate resilient land use, transportation and infrastructure planning, and investments.

WINNIPEG CLIMATE ACTION PLAN ALIGNMENT

Strategic Opportunity 1: Corporate Leadership

1.3 Implement Low Carbon and Energy Efficient City Facilities and Buildings (Primary Responsibility: Planning, Property, and Development Department)

Strategic Opportunity 5: Low Carbon and Energy Efficient Buildings

5.2 Improve Energy Performance of Existing Buildings (Primary Responsibility: Planning, Property and Development Department)

Strategic Opportunity 7: Community Climate Resiliency

7.1 Implement Opportunities to Improve Winnipeg's Resilience and Adaptability to the Effects of a Changing Climate (Primary Responsibility: Office of Sustainability)

WINNIPEG POVERTY REDUCTION STRATEGY ALIGNMENT

The information and recommendations presented in this report align with and advance the Winnipeg Poverty Reduction Strategy (2021-2031) as follows:

They align with the following Goals and Objectives:

Goal 3 – Equity is Embedded in all City Employment and Income Opportunities

C. City purchasing power is leveraged to achieve social and community benefits.

SUBMITTED BY

Department: Planning, Property and Development
Division: Urban Planning and Design
Prepared by: Dan Iskierski, MCIP, RPP
Date: July 29, 2025
File: N/A