



uniongas

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May 11, 2012

Ms. Kirsten Walli
Board Secretary
Ontario Energy Board
2300 Yonge Street, 27th Floor
Toronto, ON M4P 1E4

Dear Ms. Walli:

**Re: EB-2011-0283 – Union Gas Limited (“Union”)
EB-2011-0242 – Enbridge Gas Distribution Inc. (“Enbridge”)
Renewable Natural Gas Program – Additional Undertaking Responses.**

Please find attached responses to the remaining undertakings from the EB-2011-0283/
EB-2011-0242 hearing held April 30 through May 4, 2012.

J3.1, J4.11 Union and EGD responses

J4.1 Union response

Also included is an updated response to J2.6.

These will be filed in the Board’s RESS and 2 copies sent to the Board secretary

Should you have any questions or concerns with respect to this submission, please
contact me at 519-436-5473.

Sincerely,

[original signed by]

Karen Hockin
Manager, Regulatory Initiatives

c.c.: A.Smith (Torys)
M.Kitchen (Union)
Intervenors of Record (EB-2011-0283)

UNDERTAKING J2.6

Undertaking of Enbridge Gas Distribution Inc. and Union Gas Limited

Transcript Volume 3, page 108.

To advise on cross-tab responses between concern over environment and willingness to support renewable gas program; and percentage increase supported with steps already taken to save energy.

Part a)

Eighty-five percent of respondents indicate that they are concerned (very or somewhat) about the current state of the environment. The sample size of the sub-group of respondents who say they are not at all concerned about the current state of the environment is too small to draw conclusions when comparing to other segments. The general conclusion is that those who are concerned about the environment are more supportive of premiums than those who are not very concerned.

The tables are shown below.

Using the table below as an example - Respondents who are very concerned (column A) are more supportive of premiums than respondents who are somewhat concerned (column B) and not very concerned (column C) about the environment. Respondents who are somewhat concerned (column B) are more supportive of premiums than respondents who are not very concerned (column C) about the environment.

Q10. If your utility purchased biogas and the result was that your gas utility bill increased by 4% — which is about \$3.00 more per month — would you strongly support, somewhat support, somewhat oppose or strongly oppose your utility purchasing biogas?

Q1. Overall, how concerned are you about the current state of the environment?						
	Total	Very concerned	Somewhat concerned	Not very concerned	Not at all concerned	Don't know/ Refused
		A	B	C	D	E
Base: All respondents	1052	377	514	125	28**	8**
Strongly support	172	88	70	11	2	1
	16.3%	23.3%	13.6%	8.8%	7.1%	12.5%
		BC				
Somewhat support	432	162	225	40	4	1
	41.1%	43.0%	43.8%	32.0%	14.3%	12.5%
		C	C			
Somewhat oppose	211	62	110	35	3	1
	20.1%	16.4%	21.4%	28.0%	10.7%	12.5%
				A		
Strongly oppose	165	39	72	33	18	3
	15.7%	10.3%	14.0%	26.4%	64.3%	37.5%
				AB		
Don't Know	72	26	37	6	1	2
	6.8%	6.9%	7.2%	4.8%	3.6%	25.0%
Summary						
Top2Box (Strongly/ Somewhat support)	604	250	295	51	6	2
	57.4%	66.3%	57.4%	40.8%	21.4%	25.0%
		BC	C			
Low2Box (Somewhat/ Strongly oppose)	376	101	182	68	21	4
	35.7%	26.8%	35.4%	54.4%	75.0%	50.0%
			A	AB		

* small base; ** very small base (under 30)

Q11. If your utility purchased biogas and the result was that your gas utility bill increased by 2% — which is about \$1.50 more per month — would you strongly support, somewhat support, somewhat oppose or strongly oppose your utility purchasing biogas?

Q1. Overall, how concerned are you about the current state of the environment?						
	Total	Very concerned	Somewhat concerned	Not very concerned	Not at all concerned	Don't know/ Refused
		A	B	C	D	E
Base: All respondents	1052	377	514	125	28**	8**
Strongly support	352	159	170	21	1	1
	33.5%	42.2%	33.1%	16.8%	3.6%	12.5%
		BC	C			
Somewhat support	353	130	177	39	5	2
	33.6%	34.5%	34.4%	31.2%	17.9%	25.0%
Somewhat oppose	178	51	89	33	4	1
	16.9%	13.5%	17.3%	26.4%	14.3%	12.5%
				AB		
Strongly oppose	124	23	55	27	16	3
	11.8%	6.1%	10.7%	21.6%	57.1%	37.5%
			A	AB		
Don't Know	45	14	23	5	2	1
	4.3%	3.7%	4.5%	4.0%	7.1%	12.5%
Summary						
Top2Box (Strongly/ Somewhat support)	705	289	347	60	6	3
	67.0%	76.7%	67.5%	48.0%	21.4%	37.5%
		BC	C			
Low2Box (Somewhat/ Strongly oppose)	302	74	144	60	20	4
	28.7%	19.6%	28.0%	48.0%	71.4%	50.0%
			A	AB		

* small base; ** very small base (under 30)

Q12. If your utility purchased biogas and the result was that your gas utility bill increased by 1% — which is about \$0.80 more per month — would you strongly support, somewhat support, somewhat oppose or strongly oppose your utility purchasing biogas?

Q1. Overall, how concerned are you about the current state of the environment?						
	Total	Very concerned	Somewhat concerned	Not very concerned	Not at all concerned	Don't know / Refused
		A	B	C	D	E
Base: All respondents	1052	377	514	125	28**	8**
Strongly support	492	210	248	31	2	1
	46.8%	55.7%	48.2%	24.8%	7.1%	12.5%
		BC	C			
Somewhat support	283	101	133	41	6	2
	26.9%	26.8%	25.9%	32.8%	21.4%	25.0%
Somewhat oppose	125	31	66	24	3	1
	11.9%	8.2%	12.8%	19.2%	10.7%	12.5%
			A	A		
Strongly oppose	107	21	43	24	16	3
	10.2%	5.6%	8.4%	19.2%	57.1%	37.5%
				AB		
Don't Know	45	14	24	5	1	1
	4.3%	3.7%	4.7%	4.0%	3.6%	12.5%
Summary						
Top2Box (Strongly/ Somewhat support)	775	311	381	72	8	3
	73.7%	82.5%	74.1%	57.6%	28.6%	37.5%
		BC	C			
Low2Box (Somewhat/ Strongly oppose)	232	52	109	48	19	4
	22.1%	13.8%	21.2%	38.4%	67.9%	50.0%
			A	AB		

* small base; ** very small base (under 30)

Q13. If your utility purchased biogas and the result was that your gas utility bill increased by ½% — which is about \$0.40 more per month — would you strongly support, somewhat support, somewhat oppose or strongly oppose your utility purchasing biogas?

Q1. Overall, how concerned are you about the current state of the environment?						
	Total	Very concerned	Somewhat concerned	Not very concerned	Not at all concerned	Don't know / Refused
		A	B	C	D	E
Base: All respondents	1052	377	514	125	28**	8**
Strongly support	562	232	278	47	4	1
	53.4%	61.5%	54.1%	37.6%	14.3%	12.5%
		BC	C			
Somewhat support	239	87	115	29	7	1
	22.7%	23.1%	22.4%	23.2%	25.0%	12.5%
Somewhat oppose	100	25	54	20	0	1
	9.5%	6.6%	10.5%	16.0%	-	12.5%
			A	A		
Strongly oppose	106	21	41	25	16	3
	10.1%	5.6%	8.0%	20.0%	57.1%	37.5%
				AB		
Don't Know	45	12	26	4	1	2
	4.3%	3.2%	5.1%	3.2%	3.6%	25.0%
Summary						
Top2Box (Strongly/ Somewhat support)	801	319	393	76	11	2
	76.1%	84.6%	76.5%	60.8%	39.3%	25.0%
		BC	C			
Low2Box (Somewhat/ Strongly oppose)	206	46	95	45	16	4
	19.6%	12.2%	18.5%	36.0%	57.1%	50.0%
			A	AB		

* small base; ** very small base (under 30)

Cross-tab on part a) was run as a response to this undertaking.

/u

Part b)

Since 97% of respondents report having taken steps to save energy at home, the sample size of the sub-group of respondents that has not taken steps is too small to draw conclusions between the customers who have and have not done something to save energy.

Q10. If your utility purchased biogas and the result was that your gas utility bill increased by 4% — which is about \$3.00 more per month — would you strongly support, somewhat support, somewhat oppose or strongly oppose your utility purchasing biogas?

	Save Energy			
	Total	Yes	No	Don't know /Refused
Base: All respondents	1052	V 1025	W 22**	X 5**
Strongly support	172	172	0	0
	16.3%	16.8%	-	-
Somewhat support	432	425	5	2
	41.1%	41.5%	22.7%	40.0%
Somewhat oppose	211	203	6	2
	20.1%	19.8%	27.3%	40.0%
Strongly oppose	165	155	9	1
	15.7%	15.1%	40.9%	20.0%
Don't Know	72	70	2	0
	6.8%	6.8%	9.1%	-
Summary				
Top2Box (Strongly/ Somewhat support)	604	597	5	2
	57.4%	58.2%	22.7%	40.0%
Low2Box (Somewhat/ Strongly oppose)	376	358	15	3
	35.7%	34.9%	68.2%	60.0%

* small base; ** very small base (under 30)

Q11. If your utility purchased biogas and the result was that your gas utility bill increased by 2% — which is about \$1.50 more per month — would you strongly support, somewhat support, somewhat oppose or strongly oppose your utility purchasing biogas?

	Save Energy			
	Total	Yes	No	Don't know /Refused
		V	W	X
Base: All respondents	1052	1025	22**	5**
Strongly support	352	348	4	0
	33.5%	34.0%	18.2%	-
Somewhat support	353	347	2	4
	33.6%	33.9%	9.1%	80.0%
Somewhat oppose	178	171	7	0
	16.9%	16.7%	31.8%	-
Strongly oppose	124	116	7	1
	11.8%	11.3%	31.8%	20.0%
Don't Know	45	43	2	0
	4.3%	4.2%	9.1%	-
Summary				
Top2Box (Strongly/ Somewhat support)	705	695	6	4
	67.0%	67.8%	27.3%	80.0%
Low2Box (Somewhat/ Strongly oppose)	302	287	14	1
	28.7%	28.0%	63.6%	20.0%

* small base; ** very small base (under 30)

Q12. If your utility purchased biogas and the result was that your gas utility bill increased by 1% — which is about \$0.80 more per month — would you strongly support, somewhat support, somewhat oppose or strongly oppose your utility purchasing biogas?

Save Energy				
	Total	Yes	No	Don't know / Refused
		V	W	X
Base: All respondents	1052	1025	22**	5**
Strongly support	492	486	4	2
	46.8%	47.4%	18.2%	40.0%
Somewhat support	283	275	6	2
	26.9%	26.8%	27.3%	40.0%
Somewhat oppose	125	121	4	0
	11.9%	11.8%	18.2%	-
Strongly oppose	107	99	7	1
	10.2%	9.7%	31.8%	20.0%
Don't Know	45	44	1	0
	4.3%	4.3%	4.5%	-
Summary				
Top2Box (Strongly/ Somewhat support)	775	761	10	4
	73.7%	74.2%	45.5%	80.0%
Low2Box (Somewhat/ Strongly oppose)	232	220	11	1
	22.1%	21.5%	50.0%	20.0%

* small base; ** very small base (under 30)

Q13. If your utility purchased biogas and the result was that your gas utility bill increased by ½% —which is about \$0.40 more per month — would you strongly support, somewhat support, somewhat oppose or strongly oppose your utility purchasing biogas?

	Save Energy			
	Total	Yes	No	Don't know /Refused
Base: All respondents	1052	V 1025	W 22**	X 5**
Strongly support	562	553	6	3
	53.4%	54.0%	27.3%	60.0%
Somewhat support	239	230	8	1
	22.7%	22.4%	36.4%	20.0%
Somewhat oppose	100	99	1	0
	9.5%	9.7%	4.5%	-
Strongly oppose	106	98	7	1
	10.1%	9.6%	31.8%	20.0%
Don't Know	45	45	0	0
	4.3%	4.4%	-	-
Summary				
Top2Box (Strongly/ Somewhat support)	801	783	14	4
	76.1%	76.4%	63.6%	80.0%
Low2Box (Somewhat/ Strongly oppose)	206	197	8	1
	19.6%	19.2%	36.4%	20.0%

* small base; ** very small base (under 30)

Cross-tab on part b) was run as part of the study.

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UNDERTAKING J3.1

Undertaking of Enbridge Gas Distribution Inc. and Union Gas Limited

Transcript Volume 4, page 136 and amended page 161.

To provide the Companies' positions with respect to the potential program amendments suggested by Mr. Warren. Amended as described.

In the final days of the hearing the Utilities gave an undertaking to consider certain Intervenor's suggested alterations to the RNG program proposed by the Utilities. Some of the concepts had already been carefully considered by the Utilities, as explained in the answer to Board Staff Interrogatory # 5 (Exhibit I-1-5). The Utilities have nonetheless reconsidered them, as detailed in the answers below.

While it continues to be the position of the utilities that the applications should be approved as filed, the Utilities are amenable to certain alterations to the RNG program, provided that those alterations do not fundamentally compromise the design and integrity of the program. As detailed below, some of the Intervenor's proposed alterations to the program would fundamentally compromise the design and integrity of the program and consequently should not be adopted. The implications for the program of such alterations would be wide-ranging, but have only been identified at a high level.

The amendments are listed below with transcript reference to the question and the response of the utilities to each one.

1) Question by Mr. Warren

"In the category of possible modifications to your proposal, would you consider building into the contracts an automatic annual reduction in the contracts to account for efficiencies that may have been achieved?"

[Transcript Volume 4, May3, p.129 line 26 to p. 130 line 2]

Response

No, the Utilities would not consider an automatic annual price reduction in the contracts. Most of the producer's costs consist of the initial sunken capital costs which do not change over time. The Utilities' proposal accounts for operating efficiencies through the CPI factor of 30%.

Specifically, while operating costs will go up for producers on an annual basis, the program will assume that 70% of CPI will be absorbed by producers through gains in efficiencies. In addition, the initial price was arrived at using the target of 11% discounted cash flow return on equity (ROE) and the revenue stream. Changing the revenue stream would result in either less than 11% threshold ROE or requires a higher initial price.

2) Questions from Mr. Warren

“And one of the propositions I put to you is a modification to your program would be a trial period in which you seek bids from, in effect, an RFP process from representatives of the nine scenarios that you've got, so that you can return to the Board with an actual set of data as to what the market is likely to look like in terms of people out there actually willing to engage in this. That's one proposition, whether you would be willing to do that. A second proposition would be whether or not you would be willing to include in this mechanism some sort of competitive bidding process.”

[Transcript Reference –Volume 4 Page 135 Line 16 to Page 136 Line 5]

Response

As indicated at Board Staff Interrogatory #5 (Exhibit I-1-5) and Bullfrog Interrogatory #6 (Exhibit I-4-6), a Request for Proposal (RFP) process includes the following drawbacks:

- The need for multiple RFPs,
- the rigidity of timing and structure of RFPs may discourage full participation from different sectors,
- the need to pre-evaluate distribution systems for connectivity,
- the costs of these processes for both the proponents and the utilities, and
- the experience of OPA's RFPs and standard offer programs.

The Utilities believe that an RFP process could possibly be established for those RNG production scenarios where potential benefits may outweigh the drawbacks. This could most appropriately apply to the Landfill sector which tends to have:

- large sophisticated proponents ,
- Identifiable market participants,
- Limited scope of technology development required (i.e. clean up only)

If this approach were to be taken, and multiple bids were received, the lowest cost landfill sourced supply would be accepted provided it was lower than or equal to that proposed by the

Utilities In this application. Regardless of the approach taken, the principles that form the basis for this application, such as bill impact mitigation and program manageability should remain intact.

3) Question by Mr. Warren

“A third suggestion that has been made is whether or not—is this question of a periodic review. And assuming that the program is approved in some form, would you agree to a two-year review process after you have—because you’ve said it is one year to 18 months to get the process going—if you would agree to a review at the end of the two years to provide, in effect, an interim report to the Board on the status of market development, before the Board gives its final approval to this.”

[Transcript Volume 4, May 3, p. 136, lines 6 to 14]

Response

The Utilities are prepared to annually report on the status of the RNG program as approved, in a public document to be forwarded to the Board. Should the Board determine that a more formal review process for the program is necessary; the structure of this review will be established by the Board. At a high level, the Utilities propose that the scope of any review should be:

- Completed on a prospective basis whereby contracts entered into prior to the review are considered valid (providing price certainty for producers) and approval of utility cost recovery associated with these contracts is not subject to retroactive adjustment by the Board.
- In the form of a written report filed with the Board to identify contracts signed and total volumes contracted for, as well as update on status of environmental attributes.
- No sooner than approximately half-way through the five year program period to allow adequate time for the program to get underway and projects to be implemented.
- Limited to changes to the volume cap and/or price model on a going-forward basis for the remaining period the program.

4) Question by Mr. Poch

Regarding filtering of projects based on GHG reduction costs (see transcript reference)

[See Transcript Volume 4, May 3, p.137 line 5 to p.139 line 8 for description of request]

Response

No, the Utilities do not agree with the concept of filtering projects by “implied” GHG reductions costs. The RNG program has benefits other than GHG reduction and there are no GHG protocols established in Ontario at this time. Therefore, a filter on “implied” rather than “actual” values is not workable. However, as the Utilities have said in evidence, the purpose of the program is to create a foundation for an RNG market over the next five years. During that time, the Ontario government may establish GHG reduction protocols. This and the learnings from the RNG program can provide a valuable basis where the “actual” (rather than “implied”) value of environmental attributes will help determine the overall value of new projects.

5) Question by Mr. Thompson

Part i:

Why couldn't you ask each producer to provide you with a price that's either market or 11 percent return on that particular producer's investment, whichever is the greater, and you could then look at that?.....And so I am really asking you, if the Board agrees with that, is there a response that you can provide to that by administering this on a project-by-project basis, or is that a non-starter?

[Transcript Volume 4, May 3, p. 160 (starting at line 14) to p. 161 (ending at line 15)]

Part ii:

If this was being administered on a supplier-specific basis, is another option -- and you can add this to the undertakings -- to merely lower the price, contractual price, by the value of the attributes?

[Transcript Volume 4, May 3, p. 171 (starting at line 22) to p. 172 (ending at line 8)]

Response

- i. The Utilities do not propose to evaluate the return on investment on a project-by-project basis for the RNG program. Per the evidence filed, the utilities have proposed a transparent RNG pricing mechanism for AD and landfill projects to achieve an approximate 11% ROE over a 20-year contract life. The greater the RNG supply volume of a project above its respective annual breakpoint, the lower the average RNG price that project will receive. The pricing mechanism is intended to reflect economies of scale that

are anticipated for the development of larger projects, thereby limiting the possibility of higher than appropriate returns.

It would be challenging to obtain and verify from individual proponents all the input data, costs, cost allocations, pricing and escalation measures necessary to ascertain if a return is appropriate.

- ii. Likewise, the Utilities do not propose to lower contracted prices for RNG for the potential value of environmental attributes. As outlined in response to Mr. Poch's request (#4 above) there are no protocols established at this time. The environmental attributes, as outlined in evidence and testimony, will be acquired by the Utilities on behalf of system supply customers. In the future event that those acquired attributes have a defined monetary value, the Utilities propose to administer the savings to system supply customers.

6) Question by Mr. Thompson

"Would you have any -- if the market price was sufficient to generate 11 percent return, would you have any objection to the contract automatically terminating and the RNG seller just taking market price?"

[Transcript Volume 4, May 3, p. 169 (lines 5 to 8)]

Response

No, the Utilities do not propose to automatically terminate RNG purchase agreements upon the future market price of natural gas being sufficient for proponents to generate an 11% return. The Utilities' proposed RNG program reflects an approximate 11% ROE for a variety of RNG developments, which is directly correlated to fixed price certainty for the RNG being generated and sold to the utilities, (per response by Mr. Schneider of Enbridge Gas Distribution: Transcript Volume 4, May 3, p. 145, lines 2 through 15). In the event that the RNG program pricing established for the contracts becomes lower than future natural gas market prices, RNG will represent a discounted source of supply, a benefit to the system customers who are paying for the program.

UNDERTAKING J4.1

Undertaking of Enbridge Gas Distribution Inc. and Union Gas Limited

Transcript Volume 5, page 23.

For Union to provide whatever is on the public record for documents that were used to get approval from city council to invest in a biomethane facility.

Details available on the public record for proposal to and approval by City of Hamilton Council for the investment in a biomethane facility at the municipal WWTP are included in the following attachments:

Attachment 1 – [Hamilton Infrastructure Stimulus Fund \(ISF\) Proposal \(FCS09052c\)](#)

Attachment 2 – [Hamilton ISF Application Authorization \(By-law number 09-087\)](#)

While the announcement acknowledges the City of Hamilton's endorsement to proceed with an application to the ISF funding program for a number of infrastructure enhancements (including, a biogas/digester energy recovery project), no information was available that indicated the project's economic viability. The total estimated capital cost for the biogas/digester energy recovery project (of which the clean-up technology for biogas-to-RNG and connection to the Union Gas distribution system are only a part) is identified to be \$30 M.

The WWTP sourced RNG production scenario modeled in the Electrigaz Report at Appendix 5 (approximately 580,000 m³/yr or 23,000 GJ/yr) did not achieve a positive return on equity within the pricing limits of the utilities' RNG program. The City of Hamilton estimates RNG production utilizing additional methane volumes generated from the biogas/digester energy recovery project in the order of 1,900,000 m³/yr (or 72,000 GJ/yr). Details are included in the following attachment:

Attachment 3 – [The City of Hamilton: Energy Report 2011](#)

Union cannot comment directly on the economics of the Hamilton WWTP project, other than to acknowledge perceived economies of scale given the large production potential of RNG relative to the modeled scenario in evidence.

**CITY WIDE
IMPLICATIONS**

CITY OF HAMILTON

CORPORATE SERVICES DEPARTMENT
Budgets and Finance Division

Report to: Mayor and Members Committee of the Whole	Submitted by: Antonio D. Tollis Acting General Manager Finance and Corporate Services
Date: April 24, 2009	Prepared by: John Savoia, ext. 7298

SUBJECT: Infrastructure Stimulus Fund (FCS09052) (City Wide)

RECOMMENDATION:

- (a) That the Infrastructure Projects, as listed in Appendix "A" of report FCS09052, be approved for submission to Canada-Ontario Infrastructure Secretariat for consideration under the Infrastructure Stimulus Fund Program;
- (b) That the Infrastructure Projects, as listed in Appendix "A" of report FCS09052, be submitted in the amount of \$496.303 million, in accordance with the terms and conditions associated with the Infrastructure Stimulus Fund grant funding program;
- (c) That By-Law 09-XXX, attached as Appendix "B" of report FCS09052, be approved and enacted; and
- (d) That copies of report FCS09052 be forwarded to local MP's and MPP's.

Antonio D. Tollis
Acting General Manager,
Finance and Corporate Services

EXECUTIVE SUMMARY:

On January 27, 2009, the Government of Canada announced the creation of a new \$4-billion Infrastructure Stimulus Fund (ISF), aimed at getting shovels in the ground for infrastructure projects across Canada over the next two (2) years. The Province of Ontario has agreed to match federal funding and to work together with the federal government to ensure that these funds are delivered expeditiously and efficiently to municipalities in the province.

The \$4 billion is notionally allocated, on a per capita basis, for projects in each province and territory. However, should progress be slow or provinces and territories are unable to match federal funding, funds may be reallocated to federal infrastructure in that province or to other regions of the country where they can be quickly injected into the economy. While the process will be application and merit based, if funding were to be allocated on a population basis, as per the provincial allocation, Hamilton may expect to receive \$65 million from each level of senior government. Based on an equal funding requirement, Hamilton's share would be approximately \$65 million for a total of \$195 million.

These funds are focussed on the rehabilitation of existing assets but new construction is eligible, provided it can be fully completed by March 31, 2011, and it represents an incremental investment on the part of the municipality.

The ISF works by having the federal and provincial governments match municipal contributions towards infrastructure projects on an equal basis. All parties share one-third of the total eligible project cost. This funding will help create jobs and provide much-needed stimulus to the economy. It will also assist municipal governments meet their varied and growing infrastructure needs.

Proponents will be required to attest that the projects would not have been built over the next two (2) construction seasons without the federal and provincial funding.

Each municipality can complete an unlimited number of applications which are due on **May 1, 2009**. The bundling of like or similar projects under one (1) application has been prohibited. Proponents will be notified promptly so that construction may begin. Financial agreements will be signed between the Province of Ontario and municipalities. Prior to final approval of funding and the conclusion of an agreement with the province, the Municipality must provide proof of Council support for each approved project and the municipal contribution.

Funding is available to eligible municipalities for construction-ready municipal infrastructure projects. Some examples of eligible infrastructure categories include:

- Water and Wastewater Infrastructure
- Public Transit Infrastructure
- Local Roads Infrastructure
- Disaster Mitigation Infrastructure
- Solid Waste Management Infrastructure
- Brownfield Redevelopment Infrastructure

- Cultural Infrastructure
- Airport Infrastructure
- Municipal Buildings (excludes recreation and long term care facilities)
- Parks and Trails

Recreation projects will be steered to the Recreation Infrastructure Canada (RInC) Program, a dedicated sport and recreation infrastructure program. The federal government has allocated \$500 million nationally, over two (2) years, which will target renovation projects that can be completed quickly. The criteria and application process for RInC is to be announced shortly. The 2009 Ontario provincial budget included a matching community infrastructure fund of \$500 million.

Funding for projects related to Not-for-Profit organizations (community groups) is not part of the ISF process and the criteria and application process for this component will be announced sometime in the future.

A cross-section of staff reviewed a number of construction ready projects relative to the criteria and requirements under the ISF program. The construction ready projects were evaluated, based upon staff's interpretation of the criteria, as specified within the application process and the program guidelines.

Report FCS09052 requests Council's selection of the Project and approval of a By-law supporting the City's application for ISF funding (refer to Appendix "A" of Report FCS09052).

At the February 5, 2009, Committee of the Whole meeting, staff presented a preliminary listing of capital projects that the City consider for infrastructure funding announced in the 2009 Federal Budget (refer to Report FCS09019). Staff were directed to report back to Committee regarding this project listing, specifically to identify those projects that, after considering ISF criteria have been recommended, to not be submitted for ISF consideration. The majority of projects that are ultimately not recommended for ISF submission which do not meet key ISF criteria of project completion by March 31, 2011, and/or not meet the incremental spending requirements. Staff were also directed to note any projects recommended for ISF submission that were additions to the February 5th capital listing (refer to Appendix "C" of report FCS09052).

BACKGROUND:

The 2009 Federal Budget established a new \$4-billion Infrastructure Stimulus Fund (ISF) that provides funding towards the rehabilitation or construction of provincial, territorial, municipal and community infrastructure projects. Funding is available for two (2) years for projects that can begin construction quickly and be built during the 2009 and 2010 construction seasons. This initiative is structured to flow funding and get shovels in the ground quickly.

The ISF will focus on the rehabilitation of existing assets and new infrastructure that can begin and be completed by March 31, 2011. Given the time-sensitive nature of the stimulus funding, the ISF has been designed to ensure maximum flexibility. Funding

allocations, project identification, selection and approval, have all been developed to provide the Government of Canada with the necessary flexibility to ensure the most efficient and effective delivery of the program, thus enabling the funds to flow quickly to construction-ready projects across Canada.

The \$4 billion is notionally allocated, on a per capita basis, for projects in each province and territory. However, should progress be slow, or provinces and territories are unable to match federal funding, funds may be reallocated to federal infrastructure in that province or to other regions of the country where they can be quickly injected into the economy. Given Hamilton's population, funding that may be available from the ISF would amount to \$65 million from the federal government. If the federal ISF grant is matched by the provincial government, the City could potentially receive approximately \$130 million from the senior levels of government requiring a municipal cost-sharing in the area of \$65 million.

Eligible projects under the ISF are for the rehabilitation or retrofit of existing infrastructure assets or the construction of new infrastructure assets, in eligible categories, that can be substantially completed before March 31, 2011. For the purposes of the ISF, a project is deemed to have been substantially completed once all major construction work has been completed and the infrastructure is ready to be used for its intended purpose. Upon completion of the project, and prior to receiving the final payment from the senior levels of government, recipients will be required to provide a Solemn Declaration of Substantial Completion attested to by a registered professional.

The submission deadline is May 1, 2009. This report (FCS09052) is requesting Council's selection of the projects and approval to apply for the grant.

ANALYSIS/RATIONALE:

To be eligible for funding under the Infrastructure Stimulus Fund (ISF), projects will be required to meet requirements with regards to the incrementality of the project, project readiness and merit:

- Project incrementality - All eligible recipients will be required to attest, in conjunction with their project application, that the work to be undertaken is an incremental construction activity that would not otherwise have been constructed by March 31, 2011, were it not for funding from the ISF. Federal funding could be used to provide missing funding that allows a project to proceed, or could be used to accelerate a project planned for future years to be built by March 2011.
- Project readiness - All eligible recipients will be required to provide information necessary to determine if the project is construction-ready and likely to be substantially completed by March 31, 2011.
- Project merit - The project's merit will focus largely on the extent to which a project is construction-ready and, for rehabilitation projects, the extent to which the proposed work is needed to maintain the safety and prolong the economic life of assets.

- Financial leverage - The Government of Canada is seeking to leverage additional funds from either the province, municipality, not-for-profit sector or the private sector to provide additional economic stimulus. As well, the ability for a given project, to leverage additional capital, will be considered when making project decisions.

Projects must fall within the following eligible project categories to be eligible for the ISF:

- Water and Waste Water Infrastructure
- Public Transit Infrastructure
- Local Road Infrastructure
- Disaster Mitigation Infrastructure
- Solid Waste Management Infrastructure
- Brownfield Redevelopment Infrastructure
- Cultural Infrastructure
- Airport Infrastructure
- Port and Cruiseship Infrastructure
- Municipal Buildings (excludes recreation and long-term care facilities)
- Parks and Trails

Recreation projects will be steered to the Recreation Infrastructure Canada (RInC) program, a dedicated sport and recreation infrastructure program. The federal government has allocated \$500 million nationally over two (2) years, which will target renovation projects that can be completed quickly. The criteria and application process for RInC is to be announced shortly. The 2009 Ontario provincial budget included a matching community infrastructure fund of \$500 million.

Funding for projects related to Not-for-Profit organizations (community groups) is not part of the ISF process and the criteria and application process for this component will be announced sometime in the future.

The City has significant discretion to seek funding support for its' local priorities as no preference will be given to applications in one category over another.

The ISF will share in the capital, construction costs of eligible, approved infrastructure projects. Eligible costs are costs considered to be direct and necessary for the successful implementation of an eligible project, excluding those explicitly identified as Ineligible Costs. All eligible costs (as outlined on page 5) can only be reimbursed to the recipient following execution of a contribution agreement.

Ineligible costs associated with a project will not be reimbursed under the Infrastructure Stimulus Fund and include the following:

- costs incurred prior to the date established by the Minister in a letter to the recipient for eligibility consideration;
- costs incurred for projects that are intended to be substantially completed after March 31, 2011;
- land acquisition, leasing land, buildings, equipment and other facilities, real estate fees and related costs;
- financing charges, legal fees and loan interest payments (including those related to easements (e.g. surveys);
- any goods and services costs which are received through donations or in-kind;
- employee wages and benefits, overhead costs as well as other direct or indirect operating, maintenance and administrative costs incurred by the ultimate recipient for the eligible project(s) and, more specifically, costs relating to services delivered directly by permanent employees of the ultimate recipient, or a Crown corporation or corporation owned and controlled by the ultimate recipient; and
- provincial sales tax and Goods and Services tax, for which the ultimate recipient is eligible for a rebate, and any other costs eligible for rebates.

Federal funding from the ISF for local government assets will be one-third per cent (33.3%) of total eligible project costs. On an exceptional basis, the federal share of funding may be up to 50 per cent (50%) of total eligible project costs. The federal share of the project, from all federal sources (e.g., Federal Gas Tax) cannot exceed 50 per cent (50%) of total eligible project costs.

All projects are required to begin and materially end construction prior to March 31, 2011. Should this condition of funding not be met, the federal government shall have the right to cancel funding in whole or in part, and further, shall have the right to clawback any advanced funding, in whole or in part, for any project that is not completed by the end of the program.

The Minister of Transport, Infrastructure and Communities may cancel funding for any project that has not begun construction within sixty (60) days of its' start date.

Projects receiving federal funding may require an environmental assessment under the Canadian Environmental Assessment Act. The information requested in the project will help to determine whether an assessment is required. Construction should not begin on the project pending this review.

The window that has been provided, from a timing perspective for this program, is very small. The timeline, as provided for within the program guidelines, is as follows:

- Program announcement – January 27, 2009;
- Access to Program guidelines – April 15, 2009;
- Access to web based applications – April 15, 2009;
- Revised Program guidelines issued – April 21, 2009;
- Deadline for applications – May 1, 2009.

This program, as with previous programs, has accountability provisions. All recipients of project funding, funded under the ISF, will be required to submit at least quarterly

progress reports, detailing progress on the implementation of the project, amounts received from the federal government, broken down by class of asset and project, and an overall update on the project status. Payments will be conditional upon receipt of these reports.

The construction ready projects were evaluated, based upon staff's interpretation of the criteria, as specified within the application process and the program guidelines.

Based on the ISF criteria and the City's infrastructure needs as outlined in the ten (10) year Tax & Rate Supported Capital Budgets, staff believe the highest probability of success for the City would result from applications being submitted as outlined in Appendix "A" to report FCS09052 .

ALTERNATIVES FOR CONSIDERATION:

There are no alternative considerations.

FINANCIAL/STAFFING/LEGAL IMPLICATIONS:

Financial - The 2010 and 2011 Capital Budgets have not been funded or approved by Council. The sources of financing of the City's contribution will vary and is dependant on the specific projects approved and the amount of funding approved. Once the Province advises the City which projects are approved, staff will report back to Council with a financing plan.

The City has the funding capacity to complete all these projects. The above refers to the various methods and sources of funds (i.e., reserves, debt, Development Charges, etc.) to finance the projects.

Staffing – N/A.

Legal - The attached By-Law is required by the Federal and Provincial governments to be used to support the application process.

POLICIES AFFECTING PROPOSAL:

N/A.

RELEVANT CONSULTATION:

All City departments were represented by the internal Federal/Provincial Infrastructure Funding/ Capital Priorities Working Group:

City Manager's Office: Mike Kirkopoulos

Community Services: Terry Quinn, Keith Extance

Community Services, Culture: Anna Bradford, Ian Kerr-Wilson

Community Services, Recreation: Diane LaPointe-Kay, Chris Herstek

Corporate Services: Mike Zegarac, Joe Spiler, Barry Robinson, Earnie Mount, John Savoia

Economic Development & Planning: Guy Paparella, Tony Sergi, Ron Marini, Sally Yong-Lee

Emergency Services: Dave Cunliffe

Public Health: Teresa Bendo

Public Works: Jim Harnum, Geoff Lupton, Al Dore, Rob Norman, Steve Barnhart, Kelly Anderson

CITY STRATEGIC COMMITMENT:

By evaluating the “**Triple Bottom Line**”, (community, environment, economic implications) we can make choices that create value across all three bottom lines, moving us closer to our vision for a sustainable community, and Provincial interests.

Community Well-Being is enhanced. ☒ Yes ☐ No
Partnerships are promoted.

Environmental Well-Being is enhanced. ☒ Yes ☐ No

Economic Well-Being is enhanced. ☒ Yes ☐ No
Investment in Hamilton is enhanced and supported.

Does the option you are recommending create value across all three bottom lines?
☒ Yes ☐ No

Do the options you are recommending make Hamilton a City of choice for high performance public servants?
☐ Yes ☒ No

Department / Division / Section	Capital Project Description	Project Type: Rehabilitation / New Construction / Expansion	Projects Costs
Public Works - Water/WasteWater	Water Treatment Plant Upgrades	Rehabilitation	\$ 42,000,000
Planning & Economic Development	Road Urbanization - Trinity Church Road	New Construction	\$ 9,500,000
HES	Emergency Services Training Facility /Emergency Operations Centre	New Construction	\$ 24,000,000
Community Services - Housing	Seniors Housing - First Place	Rehabilitation	\$ 5,000,000
Public Works - Roads Program	Road Reconstruction - Beach Boulevard - Woodward to Eastport	Rehabilitation	\$ 2,500,000
Public Works - Roads Program	Road Reconstruction - Concession Street Rehabilitation	Rehabilitation	\$ 3,400,000
Public Works - Roads Program	Road Reconstruction - LINC - Hwy.403 to Dartnall Road	Rehabilitation	\$ 5,000,000
Public Works - Roads Program	Road Reconstruction - King Street - Downtown Dundas Rehabilitation	Rehabilitation	\$ 3,200,000
Public Works - Roads Program	Road Reconstruction - Highway No 8 - Gray Road to Dewitt Road	Rehabilitation	\$ 4,200,000
Public Works - Roads Program	Road Reconstruction - Mud Street - Paramount Drive to Upper Centennial Pkwy	Rehabilitation	\$ 2,000,000
Public Works - Roads Program	Road Reconstruction - Queenston Road - Pottruff to Donn	Rehabilitation	\$ 2,400,000
Public Works - Roads Program	Road Reconstruction - Paramount Drive - Mud to Winterberry	Rehabilitation	\$ 1,200,000
Public Works - Roads Program	Road Reconstruction - Governors Road & Davidson Roundabout	Rehabilitation	\$ 1,400,000
Public Works - Roads Program	Road Reconstruction - Fennell Avenue - Upper Ottawa to Mountain Brow	Rehabilitation	\$ 1,300,000
Public Works - Roads Program	Road Reconstruction - Highway No.8 - Hillcrest to Park	Rehabilitation	\$ 3,900,000
Public Works - Roads Program	Road Reconstruction - York Road - Newman Road to Valley Road	Rehabilitation	\$ 2,000,000
Public Works - Roads Program	Road Reconstruction - Mountain Brow Boulevard	Rehabilitation	\$ 2,500,000
Public Works - Energy	Energy Retrofit - 700 Woodward Ave	Rehabilitation	\$ 4,500,000
Public Works - Energy	Energy Retrofit - Lister District Energy Expansion	Rehabilitation	\$ 1,200,000
Public Works - Energy	Energy Retrofit - Hamilton Convention Center	Rehabilitation	\$ 1,500,000
Public Works - Energy	Energy Retrofit - Hamilton Place	Rehabilitation	\$ 1,500,000
Public Works - Energy	Energy Retrofit - Copps Coliseum	Rehabilitation	\$ 1,700,000
Public Works - Energy	Energy Retrofit - Fire Station #24 - 252 Parkside Dr. E	Rehabilitation	\$ 26,500
Public Works - Energy	Energy Retrofit - Fire Station #23 - 19 Memorial Square	Rehabilitation	\$ 26,000
Public Works - Energy	Energy Retrofit - Fire Station #05 - 1000 Limeridge Road E	Rehabilitation	\$ 23,000
Public Works - Energy	Energy Retrofit - Central Public Library - 55 York Blvd.	Rehabilitation	\$ 608,000
Public Works - Energy	Energy Retrofit - Terryberry Library - 100 Mohawk Road W	Rehabilitation	\$ 88,500
Public Works - Energy	Energy Retrofit - Sherwood Library - 467 Upper Ottawa	Rehabilitation	\$ 61,000
Public Works - Energy	Energy Retrofit - Wentworth Ops Ctr. - 330 Wentworth	Rehabilitation	\$ 800,000
Public Works - Energy	Energy Retrofit - Gage Park Green House - 1000 Main St E	Rehabilitation	\$ 1,000,000
Public Works - Energy	Energy Retrofit - LightSaver LED Pilot - TH&B Tunnel	Rehabilitation	\$ 55,000
Community Services - Culture	Curatorial Centre at Auchmar	Rehabilitation	\$ 8,470,000
Community Services - Housing	New seniors building - 690 Stone Church Road West,	New Construction	\$ 3,600,000

Department / Division / Section	Capital Project Description	Project Type: Rehabilitation / New Construction / Expansion	Projects Costs
Planning & Economic Development	Road Urbanization - Rymal Road East - from Dartnall Road to Upper Centennial Road	Expansion	\$ 33,000,000
PW - Parks Open Space	Victoria Park redevelopment	Rehabilitation	\$ 900,000
PW - Parks Open Space	Glanbrook Sports Complex, Artificial Turf Soccer Field	Rehabilitation	\$ 1,650,000
PW - Parks Open Space	Courtcliffe Park, permeable parking lot 300 vehicles	Rehabilitation	\$ 1,200,000
PW - Parks Open Space	William McCulloch Park, redevelopment ball diamonds	Rehabilitation	\$ 1,000,000
PW - Parks Open Space	Billy Sherring Park, Artificial Turf Soccer Field	Rehabilitation	\$ 1,650,000
PW - Parks Open Space	Turner Park Ball Field Sports Field Lighting & Servicing	Rehabilitation	\$ 1,100,000
Community Services - Housing	Social Housing - 95 King Street East,	Rehabilitation	\$ 4,000,000
PW - Traffic	Traffic Signal Control Systems Technology Upgrade	Rehabilitation	\$ 10,000,000
City	New Visitor Orientation Centre for the Westfield Heritage Village (Flamborough)	New Construction	\$ 1,500,000
Planning & Economic Development	Road Urbanization Binbrook Road West/Hwy 56	Expansion	\$ 19,000,000
Community Services - Housing	Social Housing - 4 Bridgewater Court	New Construction	\$ 1,900,000
Community Services - Culture	Dundurn Castle Renovations	Rehabilitation	\$ 10,000,000
Public Works - Water/WasteWater	Bio Gas/ Digester (Energy Recovery)	Rehabilitation and New	\$ 30,000,000
Public Works - Water/WasteWater	Ferguson Pumping Station Upgrades	Rehabilitation	\$ 20,000,000
Public Works - Water/WasteWater	Kenilworth Water Reservoir and Pumping Station Upgrades	Rehabilitation	\$ 6,800,000
Public Works - Water/WasteWater	Stone Church Water Reservoir and Pumping Station Upgrades	Rehabilitation	\$ 4,500,000
Public Works - Water/WasteWater	Hillcrest Water Reservoir Upgrades	Rehabilitation	\$ 8,600,000
Public Works - Roads Program	Road Reconstruction - Bryna Avenue - Huntsville to Upper Wellington	Rehabilitation	\$ 130,200
Public Works - Roads Program	Road Reconstruction - Coronet Court - Luscombe to end	Rehabilitation	\$ 25,000
Public Works - Roads Program	Road Reconstruction - Deschene Avenue - Luscombe to June	Rehabilitation	\$ 580,000
Public Works - Roads Program	Road Reconstruction - Greeningdon Drive - Hester to Manning	Rehabilitation	\$ 383,000
Public Works - Roads Program	Road Reconstruction - Huntsville Street - Deschene to June	Rehabilitation	\$ 203,000
Public Works - Roads Program	Road Reconstruction - June Street - Manning to Huntville	Rehabilitation	\$ 158,000
Public Works - Roads Program	Road Reconstruction - Limeridge Road East - Ridge to Upper Wellington	Rehabilitation	\$ 725,000
Public Works - Roads Program	Road Reconstruction - Luscombe Street - Hayden to Upper Wellington	Rehabilitation	\$ 560,000
Public Works - Roads Program	Road Reconstruction - Maitland Avenue - June to Limeridge	Rehabilitation	\$ 77,600

Department / Division / Section	Capital Project Description	Project Type: Rehabilitation / New Construction / Expansion	Projects Costs
Public Works - Roads Program	Road Reconstruction - Manning Avenue - Luscombe to end	Rehabilitation	\$ 655,000
Public Works - Roads Program	Road Reconstruction - Purdy Crescent - Greeningdon to end	Rehabilitation	\$ 400,000
Public Works - Roads Program	Road Reconstruction - Ridge Street - Hester to Limeridge	Rehabilitation	\$ 380,000
Public Works - Roads Program	Road Reconstruction - Victor Boulevard - Ridge to Ridge	Rehabilitation	\$ 500,000
Public Works - Roads Program	Road Reconstruction - Washington Street - Purdy to Deschene	Rehabilitation	\$ 110,000
Public Works - Roads Program	Road Reconstruction - Astra Court - Jaunita to end	Rehabilitation	\$ 46,700
Public Works - Roads Program	Road Reconstruction - Bendamere Avenue - West 26th to Upper Paradise	Rehabilitation	\$ 225,000
Public Works - Roads Program	Road Reconstruction - Brenlyn Court - Sanatorium to end	Rehabilitation	\$ 118,009
Public Works - Roads Program	Road Reconstruction - Elmwood Avenue - Garth to Upper Paradise	Rehabilitation	\$ 790,000
Public Works - Roads Program	Road Reconstruction - Fisher Crescent - Bendamere to Bendamere	Rehabilitation	\$ 330,000
Public Works - Roads Program	Road Reconstruction - Juanita Drive - Brenlyn to Mohawk	Rehabilitation	\$ 355,000
Public Works - Roads Program	Road Reconstruction - Leeward Place - Juanita to end	Rehabilitation	\$ 12,270
Public Works - Roads Program	Road Reconstruction - Sanatorium Road - Garth to Upper Paradise	Rehabilitation	\$ 579,000
Public Works - Roads Program	Road Reconstruction - West 22nd Street - Fisher to Sanatorium	Rehabilitation	\$ 205,000
Public Works - Roads Program	Road Reconstruction - West 23rd Street - Leslie to Sanatorium	Rehabilitation	\$ 530,000
Public Works - Roads Program	Road Reconstruction - West 24th Street - Leslie to Sanatorium	Rehabilitation	\$ 729,900
Public Works - Roads Program	Road Reconstruction - West 25th Street - Leslie to Sanatorium	Rehabilitation	\$ 275,000
Public Works - Roads Program	Road Reconstruction - West 27th Street - Price to Sanatorium	Rehabilitation	\$ 930,000
Public Works - Roads Program	Road Reconstruction - Burns Place - East 38th to end	Rehabilitation	\$ 75,350
Public Works - Roads Program	Road Reconstruction - East 31st Street - Concession to Fennell	Rehabilitation	\$ 599,934
Public Works - Roads Program	Road Reconstruction - East 32nd Street - Concession to Crockett	Rehabilitation	\$ 155,325
Public Works - Roads Program	Road Reconstruction - East 33rd Street - Concession to Queensdale	Rehabilitation	\$ 186,150
Public Works - Roads Program	Road Reconstruction - East 34th Street - Fennell to Queensdale	Rehabilitation	\$ 330,000
Public Works - Roads Program	Road Reconstruction - East 35th Street - private road to Crockett	Rehabilitation	\$ 225,000
Public Works - Roads Program	Road Reconstruction - East 36th Street - Crockett to end	Rehabilitation	\$ 245,000
Public Works - Roads Program	Road Reconstruction - East 38th Street - Queensdale to Fennell	Rehabilitation	\$ 530,000

Department / Division / Section	Capital Project Description	Project Type: Rehabilitation / New Construction / Expansion	Projects Costs
Public Works - Roads Program	Road Reconstruction - East 39th Street - Queensdale to Crockett	Rehabilitation	\$ 156,100
Public Works - Roads Program	Road Reconstruction - Mountain Park Avenue - Upper Sherman to Concession	Rehabilitation	\$ 600,000
Public Works - Roads Program	Road Reconstruction - Patricia Place - Est 38th to end	Rehabilitation	\$ 62,000
Public Works - Roads Program	Road Reconstruction - Upper Sherman Avenue - Concession to Mountain Park	Rehabilitation	\$ 149,000
Public Works - Roads Program	Road Reconstruction - Virginia Court - Bruceale to end	Rehabilitation	\$ 135,000
Public Works - Roads Program	Road Reconstruction - Bendamere Avenue - Upper Paradise to West 35th	Rehabilitation	\$ 347,750
Public Works - Roads Program	Road Reconstruction - Elmwood Avenue - Upper Paradise to West 33rd	Rehabilitation	\$ 173,900
Public Works - Roads Program	Road Reconstruction - Leslie Avenue - Upper Paradise to West 35th	Rehabilitation	\$ 260,350
Public Works - Roads Program	Road Reconstruction - Sanatorium Road - Upper Paradise to Rice	Rehabilitation	\$ 319,430
Public Works - Roads Program	Road Reconstruction - Kings Gate - Monarch to Pleasant	Rehabilitation	\$ 71,550
Public Works - Roads Program	Road Reconstruction - Monarch Court - Kings Gate to end	Rehabilitation	\$ 207,880
Public Works - Roads Program	Road Reconstruction - Orchard Avenue - Turnbull to Pleasant	Rehabilitation	\$ 197,790
Public Works - Roads Program	Road Reconstruction - Rhodes Court - Turnbull to end	Rehabilitation	\$ 43,980
Public Works - Roads Program	Road Reconstruction - Terrace Drive - Turnbull to Turnbull	Rehabilitation	\$ 547,600
Public Works - Roads Program	Road Reconstruction - Turnbull Road - Autumn Leaf to end	Rehabilitation	\$ 586,500
Public Works - Roads Program	Road Reconstruction - Valleyview Court - Pleasant to end	Rehabilitation	\$ 97,570
Public Works - Roads Program	Road Reconstruction - Whitfield Court - Turnbull to end	Rehabilitation	\$ 38,970
Public Works - Roads Program	Road Reconstruction - Adams Street - Cannon to end	Rehabilitation	\$ 40,650
Public Works - Roads Program	Road Reconstruction - Arthur Avenue North - King to Wilson	Rehabilitation	\$ 136,200
Public Works - Roads Program	Road Reconstruction - Chestnut Avenue - Wilson to Barton	Rehabilitation	\$ 298,200
Public Works - Roads Program	Road Reconstruction - Earl Street - Barton to end	Rehabilitation	\$ 246,000
Public Works - Roads Program	Road Reconstruction - Farleigh Avenue North - King to Wilson	Rehabilitation	\$ 141,000
Public Works - Roads Program	Road Reconstruction - Fife Street - Chestnut to Sherman	Rehabilitation	\$ 88,200
Public Works - Roads Program	Road Reconstruction - Fullerton Avenue - Barton to Princess	Rehabilitation	\$ 136,200
Public Works - Roads Program	Road Reconstruction - Gibson Avenue - King to end	Rehabilitation	\$ 640,000

Department / Division / Section	Capital Project Description	Project Type: Rehabilitation / New Construction / Expansion	Projects Costs
Public Works - Roads Program	Road Reconstruction - Greenaway Avenue - Wilson to Cannon	Rehabilitation	\$ 79,680
Public Works - Roads Program	Road Reconstruction - Harvey Street - Sanford to Birch	Rehabilitation	\$ 180,000
Public Works - Roads Program	Road Reconstruction - Hazel Avenue - Wilson to Cannon	Rehabilitation	\$ 73,180
Public Works - Roads Program	Road Reconstruction - Holton Avenue North - King to Wilson	Rehabilitation	\$ 105,000
Public Works - Roads Program	Road Reconstruction - Huntley Street - Cannon to end	Rehabilitation	\$ 50,950
Public Works - Roads Program	Road Reconstruction - Huron Street - Sanford to Stirton	Rehabilitation	\$ 160,785
Public Works - Roads Program	Road Reconstruction - Kinrade Avenue - Cannon to Barton	Rehabilitation	\$ 220,000
Public Works - Roads Program	Road Reconstruction - Madison Avenue - Wilson to end	Rehabilitation	\$ 153,447
Public Works - Roads Program	Road Reconstruction - Milton Avenue - Barton to Princess	Rehabilitation	\$ 181,100
Public Works - Roads Program	Road Reconstruction - Princess Street - Milton to Sherman	Rehabilitation	\$ 420,000
Public Works - Roads Program	Road Reconstruction - Stirton Street - King to Cannon	Rehabilitation	\$ 194,000
Public Works - Roads Program	Road Reconstruction - Westinghouse Avenue - Barton to Mylar	Rehabilitation	\$ 100,600
HECFI	Copps Coliseum - Replacement of Roof	Rehabilitation	\$ 1,500,000
HECFI	Hamilton Place - Rehabilitation of Exterior Concrete Walls	Rehabilitation	\$ 250,000
Community Services - Lodges	Macassa Lodge Kitchen & Dietary Refurbishment	Rehabilitation	\$ 1,400,000
Community Services - Lodges	Wentworth Lodge 1989 Wing Refurbishment	Rehabilitation	\$ 900,000
Community Services - Lodges	Macassa Lodge Resident Care Equipment and Facility renovation	Rehabilitation	\$ 1,000,000
Community Services - Recreation	Westmount Recreation Centre	New Construction	\$ 21,000,000
Community Services - Recreation	Lower Stoney Creel Recreation Centre - Phase One	New Construction	\$ 13,000,000
Community Services - Recreation	Morgan Firestone Arena Twinning	Expansion	\$ 10,275,000
Community Services - Recreation	Sir Allen MacNab Rehabilitation Project	Rehabilitation	\$ 3,000,000
Community Services - Recreation	Hill Park Rehabilitation	Rehabilitation	\$ 2,000,000
Community Services - Recreation	Sir Wilfrid Laurier Rehabilitation	Rehabilitation	\$ 1,500,000
Community Services - Recreation	Winona Seniors Expansion	Expansion	\$ 900,000
Community Services - Recreation	Scott Park Arena Expansion	Expansion	\$ 2,000,000

Department / Division / Section	Capital Project Description	Project Type: Rehabilitation / New Construction / Expansion	Projects Costs
Community Services - Recreation	Parkdale Arena Retrofit	Rehabilitation	\$ 1,650,000
Community Services - Recreation	Inch Park Arena Retrofit	Rehabilitation	\$ 1,500,000
Community Services - Recreation	Rosedale Arena Retrofit	Rehabilitation	\$ 1,650,000
Community Services - Recreation	Carlisle Arena Retrofit	Rehabilitation	\$ 970,000
Community Services - Recreation	Rosedale Outdoor Pool Retrofit	Rehabilitation	\$ 2,000,000
Community Services - Recreation	Green Acres Outdoor Pool Retrofit	Rehabilitation	\$ 2,000,000
Community Services - Recreation	Parkdale Pool Retrofit	Rehabilitation	\$ 2,000,000
Community Services - Recreation	Inch Park Pool Retrofit	Rehabilitation	\$ 2,000,000
Community Services - Recreation	Birge Outdoor Pool Retrofit	Rehabilitation	\$ 2,000,000
Community Services - Recreation	Chedoke Twin Pad Floor Replacement	Rehabilitation	\$ 1,050,000
Community Services - Recreation	Beemer Park Washroom Facility	New Construction	\$ 300,000
Community Services - Recreation	Redemeer College Soccer Complex	New Construction	\$ 8,000,000
Community Services - Recreation	Coronation Arena Public/Private Partnership	New Construction	\$ 3,000,000
Tradeport International Corporation	Terminal Expansion	Rehabilitation	\$ 60,000,000
Tradeport International Corporation	Runway Expansion	Rehabilitation	\$ 20,000,000
Tradeport International Corporation	Dock Facility Upgrades	Rehabilitation	\$ 12,000,000
Total			\$ 496,303,000

**CITY OF HAMILTON
BY-LAW NUMBER 09-XXX**

**A BY-LAW TO AUTHORIZE THE SUBMISSION OF
APPLICATIONS TO CANADA-ONTARIO INFRASTRUCTURE
SECRETARIAT FOR FUNDING FROM THE INFRASTRUCTURE
STIMULUS FUND PROGRAM AS ELIGIBLE CAPITAL PROJECTS
OF THE CITY OF HAMILTON,**

WHEREAS the *Municipal Act, 2001* (Ontario), as amended, (the “Act”) provides that a municipal power shall be exercised by by-law unless the municipality is specifically authorized to do otherwise;

AND WHEREAS the Government of Canada has recently announced an investment of \$4 billion dollars nationally under the Infrastructure Investment Fund;

AND WHEREAS on behalf of the Government of Canada, the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) will be administering the Infrastructure Investment Fund available to Ontario municipalities for the purposes of eligible municipal infrastructure initiative projects;

AND WHEREAS it is now deemed to be expedient to authorize for the municipal purposes of the Municipality the capital projects described in column (2) of Schedule “A” (the “**Project**”) attached hereto and forming part of this By-law (“**Schedule “A”**”) in the amount of the estimated expenditures set out in column (3) of Schedule “A”;

AND WHEREAS the Federal and Provincial governments have invited eligible Ontario municipalities desirous of obtaining funding pursuant to the Infrastructure Investment Fund in order to meet capital expenditures in connection with eligible capital projects for such funding by completing and submitting applications through the form provided (the “**Application**”);

AND WHEREAS the Municipality has submitted an Application to the Federal and Provincial governments to request funding in respect of the Projects;

NOW THEREFORE THE COUNCIL OF THE CITY OF HAMILTON ENACTS AS FOLLOWS:

1. The Council of the Municipality hereby confirms, ratifies and approves the completion by the Acting General Manager of Finance and Corporate Services of Applications and the submissions by such authorized official of Applications, duly executed by such authorized official, to the Federal and Provincial governments for the funding of the Projects in connection with the Infrastructure Investment Fund in the maximum aggregate principal amount of \$496,303,000 (the “Funding”).
2. This By-law takes effect on the day of passing.

APPENDIX "B" TO FCS09052 – Page 2 of 3

PASSED AND ENACTED this _____ day of _____, 2009.

MAYOR

CLERK

Schedule "A"
to By-Law Number 09-XXX

(1)	(2)	(3)	(4)
<u>Project Name</u>	<u>Description of Eligible Capital Work</u>	<u>Estimated Expenditure</u>	<u>Grant Amount</u>

City of Hamilton February 5, 2009 COW Revised Capital Project Listing

Department / Division / Section	Capital Project	Additional Information	Cost	Rationale for ISF Exclusion:
Community Services - Culture	Hamilton Farmers' Market		7,100,000	Projects started in 2009 budget and therefore, does not meet ISF incremental requirement.
Community Services - Culture	Curatorial Centre at Auchmar - Restoration of Auchmar Estate to be used as the City of Hamilton's Civic Curatorial and Welcome Centre.	Auchmar is a significant cultural/heritage asset for the City of Hamilton and is of significance locally, provincially and nationally.	9,900,000	
Community Services - Culture	Dundurn Renaissance		10,000,000	
Community Services - Culture	Hamilton Children's Museum Expansion		5,000,000	Projects that will not meet March 31, 2011 ISF Completion requirement
Community Services - Culture	Hamilton Museum of Steam and Technology		5,000,000	Projects that will not meet March 31, 2011 ISF Completion requirement
Community Services - Culture	Fieldcote Memorial Park and Museum		4,000,000	Projects that will not meet March 31, 2011 ISF Completion requirement
Community Services - Culture	Legacy Projects - War of 1812		12,000,000	Projects that will not meet March 31, 2011 ISF Completion requirement
Community Services - Housing	P3 Hafton Heritage Realty Inc., 40-44 Flamboro Street, Waterdown ON	7 rental units	490,000	Submitted under new housing construction stream (COHP).
Community Services - Housing	P3 T. Valeri Construction Ltd, 480 Stone Church Road East, Hamilton ON	63 rental units	4,410,000	Submitted under new housing construction stream (COHP).
Community Services - Housing	P3 J. Beume Real Estate Limited, 127 Burton Street, Hamilton ON	24 rental units	1,680,000	Submitted under new housing construction stream (COHP).
Community Services - Housing	P3 Polish National Catholic Church of Canada, 2782 Barton Street East, Hamilton	87 rental units	6,090,000	Submitted under new housing construction stream (COHP).
Community Services - Housing	P3 815488 Ontario Inc., 1489-1493 Upper Gage Avenue, Hamilton ON	40 rental units	2,800,000	Submitted under new housing construction stream (COHP).
Community Services - Housing	P3 Prime Properties Inc., 53-59 King Street East, Hamilton ON	24 rental units	1,680,000	Submitted under new housing construction stream (COHP).
Community Services - Housing	P3 Helen Park Apartments Limited, 16 Helen Street, Dundas ON Ranked #3 by Council through RFP C10-02-07	26 rental units	1,820,000	Submitted under new housing construction stream (COHP).
Community Services - Housing	690 Stone Church Road West	30 rental units	3,600,000	
Community Services - Housing	4 Bridgewater Court	14 home-ownership units	112,000	
Community Services - Housing	1900 Main St. West	Elevator Cab One Replacement	125,000	To be submitted under Social Housing Repair stream.
Community Services - Housing	1900 Main St. West	Elevator Cab Two Replacement	125,000	To be submitted under Social Housing Repair stream.
Community Services - Housing	1884 Main St. West	Elevator Cab Replacement	175,000	To be submitted under Social Housing Repair stream.
Community Services - Housing	680 Stonechurch Road West	Elevator Cab Replacement	175,000	To be submitted under Social Housing Repair stream.
Community Services - Housing	170 East Ave. S.	Elevator Cab Replacement	175,000	To be submitted under Social Housing Repair stream.
Community Services - Housing	801 Upper Gage Avenue	Asbestos Remediation - Ceiling only	3,680,000	To be submitted under Social Housing Repair stream.
Community Services - Housing	CHH Portfolio	Asbestos Encapsulation	4,435,950	To be submitted under Social Housing Repair stream.
Community Services - Housing	95 Hess Street South	Keycard Access System	12,000	To be submitted under Social Housing Repair stream.
Community Services - Housing	181 Jackson Street West	Keycard Access System	12,000	To be submitted under Social Housing Repair stream.
Community Services - Housing	200 Jackson Street West	Keycard Access System	12,000	To be submitted under Social Housing Repair stream.
Community Services - Housing	191 Main Street West	Keycard Access System	12,000	To be submitted under Social Housing Repair stream.
Community Services - Housing	30 Sanford Avenue S.	Keycard Access System	12,000	To be submitted under Social Housing Repair stream.
Community Services - Housing	170 East Ave. S.	Keycard Access System	12,000	To be submitted under Social Housing Repair stream.
Community Services - Housing	155 Park Street S	Keycard Access System	12,000	To be submitted under Social Housing Repair stream.
Community Services - Housing	20 Congress Avenue	Keycard Access System	12,000	To be submitted under Social Housing Repair stream.
Community Services - Housing	1900 Main St. West	Keycard Access System	12,000	To be submitted under Social Housing Repair stream.
Community Services - Housing	1884 Main St. West	Keycard Access System	12,000	To be submitted under Social Housing Repair stream.
Community Services - Housing	CHH Communities - Various	Stove Replacement - Safety Elements	1,800,000	To be submitted under Social Housing Repair stream.
Community Services - Housing	CHH Communities - Various	Fridge Replacement	1,800,000	To be submitted under Social Housing Repair stream.
Community Services - Housing	CHH Single/Semi Units	Furnace Replacement	750,000	To be submitted under Social Housing Repair stream.
Community Services - Housing	6 Target Buildings	Bed Bug IPM Program	495,105	To be submitted under Social Housing Repair stream.

City of Hamilton February 5, 2009 COW Revised Capital Project Listing

Department / Division / Section	Capital Project	Additional Information	Cost	Rationale for ISF Exclusion:
Community Services - Housing	226 Rebecca Street	Exterior Wall Cladding	700,000	To be submitted under Social Housing Repair stream.
Community Services - Housing	155 Park Street S	Underground Parking Garage	965,000	To be submitted under Social Housing Repair stream.
Community Services - Housing	430 Cumberland Avenue	Roof Work	100,000	To be submitted under Social Housing Repair stream.
Community Services - Housing	1884 Main St. West	Roof Replacement	600,000	To be submitted under Social Housing Repair stream.
Community Services - Housing	Oriole Crescent	Roof Replacement	115,900	To be submitted under Social Housing Repair stream.
Community Services - Housing	155 Park Street S	Pipe Replacement	1,500,000	To be submitted under Social Housing Repair stream.
Community Services - Housing	500 MacNab Avenue	Pipe Replacement	1,500,000	To be submitted under Social Housing Repair stream.
Community Services - Housing	1900 Main St. West	Pipe Replacement	500,000	To be submitted under Social Housing Repair stream.
Community Services - Housing	1884 Main St. West	Pipe Replacement	1,500,000	To be submitted under Social Housing Repair stream.
Community Services - Housing	555 Queenston Rd	Window/Door Replacement	185,600	To be submitted under Social Housing Repair stream.
Community Services - Housing	25 Towercrest Drive	Window/Door Replacement	228,000	To be submitted under Social Housing Repair stream.
Community Services - Housing	680 Stonechurch Road West	Window/Door Replacement	260,000	To be submitted under Social Housing Repair stream.
Community Services - Housing	580 Limeridge Rd. E	Window/Door Replacement	143,000	To be submitted under Social Housing Repair stream.
Community Services - Housing	5 Maple Ave	Balcony Restoration	62,000	To be submitted under Social Housing Repair stream.
Community Services - Housing	Various Sites		44,897,555	To be submitted under Social Housing Repair stream.
Community Services - Lodges	Wentworth Lodge	1989 Wing: Baseboard, flooring, wall protection replacement	125,000	
Community Services - Lodges	Macassa Lodge	Oven/Dietary Replacement	55,000	
Community Services - Lodges	M/W Lodge	Mattresses' Replacement	360,000	
Community Services - Lodges	Macassa Lodge	Tubs, Lifts, Shower Chairs Replacement	670,000	
Community Services - Lodges	Wentworth Lodge	1989 Wing: HVAC Replacement	150,000	
Community Services - Lodges	Macassa Lodge	Refurbish Kitchen	840,000	
Community Services - Lodges	Wentworth Lodge	1989 Wing: Bathroom Fixtures Replacement	50,000	
Community Services - Lodges	Wentworth Lodge	1989 Wing: Plumbing Refurbishment	50,000	
Community Services - Lodges	Wentworth Lodge	Roof	1,000,000	Projects that will not meet March 31, 2011 ISF Completion requirement
Community Services - Lodges	Macassa Lodge	D Wing Refurbishment	4,000,000	Projects that will not meet March 31, 2011 ISF Completion requirement
Community Services - Lodges	Macassa Lodge	A Wing Refurbishment	4,000,000	Projects that will not meet March 31, 2011 ISF Completion requirement
Community Services - Lodges	Macassa Lodge	Generator Replacement	100,000	Projects that will not meet March 31, 2011 ISF Completion requirement
Community Services - Lodges	Macassa Lodge	Refurbish Basement	1,500,000	Projects that will not meet March 31, 2011 ISF Completion requirement
Community Services - Lodges	Macassa Lodge	Parking Lot Resurface	400,000	Projects that will not meet March 31, 2011 ISF Completion requirement
Community Services - Lodges	Macassa Lodge	Dietary/Nursing Equipment Replacement	100,000	
Community Services - Lodges	Macassa and Wentworth Lodge		13,400,000	
Community Services - Recreation	Dalewood Recreation Centre - NEW - Priority for Ward 1 and community.	Design and construction of a new recreation centre to include indoor pool, and seniors programming space.	19,500,000	
Community Services - Recreation	Beemer Park -NEW	Design and construction of new park washroom facility	350,000	
Community Services - Recreation	New Beasley Community Centre (2010) - APPROVED	Approved, new recreation centre in partnership with Dr. Davey Public School (new) Alternative source	3,000,000	
Community Services - Recreation	Norman Pinky Lewis Recreation Centre- REDEVELOPMENT	Phase 1 of the Centres redevelopment, recondition existing centre and design the expansion. Expansion to include gymnasium, indoor pool tanks, family change rooms, seniors space and youth space. Design of the project to take place in 2009, renovations and	10,570,000	
Community Services - Recreation	Rosedale Outdoor Pool - REDESIGN/REDEVELOP	Design and construction of new outdoor pool and splash pad. Design to take place in 2009 and the construction of the pool to take place in 2010.	3,000,000	

City of Hamilton February 5, 2009 COW Revised Capital Project Listing

Department / Division / Section	Capital Project	Additional Information	Cost	Rationale for ISF Exclusion:
Community Services - Recreation	Westmount Recreation Centre - REDEVELOPMENT - Priority for the area since closure of existing facility.	Design and construction of a new recreation centre and indoor pool to replace the recent closure of Westmount, future estimated budget projection of project \$ 22,000,000	19,500,000	
Community Services - Recreation	Sir Allen MacNab - REDEVELOPMENT	Add youth and seniors programming space.	3,200,000	
Community Services - Recreation	Community Centre - NEW (phase 1)- NEW Lower Stoney Creek	Design and construction of a new community centre to include a seniors and youth recreation centre and indoor pool. Future estimated budget projection of \$ 22,000,000.	13,000,000	
Community Services - Recreation	Glanbrook Arena-REDEVELOPMENT	Construction of new change room and mechanical upgrade of refrigeration plant.	600,000	
Community Services - Recreation	Green Acres Outdoor Pool - REDESIGN/REDEVELOP	Design and construction of a new outdoor pool and splash pad.	3,000,000	
Community Services - Recreation	New Community Centre (Winona)NEW CONSTRUCTION	Design and construction of a new community centre to include, youth and seniors spaces and an indoor pool.	21,500,000	
Community Services - Recreation	Ancaster Aquatic Centre- REDEVELOPMENT	Replace roof, foundation repair, HVAC and dehumidification upgrade.	900,000	
Community Services - Recreation	Flamborough Twin Pad (Wentworth Arena) APPROVED	Approved at \$16M, \$1M to decommission	18,000,000	
Community Services - Recreation	Valley Park Community Centre - Expansion	Expansion to add youth and seniors programming space.	2,300,000	
Community Services - Recreation	Morgan Firestone Arena - Twinning	Expansion - Twinning of Existing arena complex to include an additional ice surface	10,275,000	
Community Services - Recreation	Chedoke Outdoor Pool - Renovation	Renovation of existing pool and the addition of a splash pad	400,000	
Community Services - Recreation	Hill Park Recreation Centre - Refurbishment	Renovation of the existing recreational space.	2,000,000	
Community Services - Recreation	Sir Wilfrid Laurier Recreation Centre - Refurbishment	Renovation of the existing recreational space.	1,500,000	
Community Services - Recreation	Carlisle Arena - Rehabilitation	Renovation and upgrade of existing arena	970,000	
Community Services - Recreation	Inch Park Arena Retrofit	Arena retrofit and code compliance upgrades	1,500,000	
Community Services - Recreation	Rosedale Arena Retrofit	Arena retrofit and code compliance upgrades	1,650,000	
Community Services - Recreation	Inch Park Pool Refurbishment	Renovation of pool and the addition of splash pad, Design in 2011 and construction in 2012.	2,000,000	
Community Services - Recreation	Birge Outdoor Pool - Redevelopment	Renovation and redevelopment of pool to include splash pad	2,000,000	
Community Services - Recreation	Ancaster Aquatic Centre- Refurbishment	Complete renovation of existing facility to include upgrades	3,100,000	
Community Services - Recreation	Parkdale Arena Retrofit	Arena retrofit and code compliance upgrades	1,650,000	
Community Services - Recreation	Parkdale Outdoor Pool refurbishment and Redevelopment	Redevelopment of existing outdoor pool to include splash pads	2,000,000	
Community Services - Recreation	Coronation Arena - Redevelopment and Partnership	Redevelopment of a new arena and the creation of a partnership with an exterior agency (Local University)	8,000,000	
Community Services - Recreation	Scott Park Arena Refurbishment and Development of an Older Seniors Centre	Refurbish the existing arena and create a new older seniors recreation centre on site.	12,000,000	
Community Services - Recreation	Chedoke Twin Pad Floor Replacement	Replacement of floor in the Green Arena at Chedoke	1,050,000	
Community Services - Recreation	Arena Mechanical - Electrical Equipment - Replacement of arena refrigeration equipment in the 21 City owned arenas	Coronation Arena, replace compressors and condenser	135,000	
		Rosedale Arena, replace brine pump, brine header and chiller	135,000	
		Lawfield Arena, replace compressors and scoreboard	75,000	
		Chedoke Twin Pad - replace compressors	85,000	
		Stoney Creek Arena, - replace condenser	50,000	
		Saltfleet Arena, replace condenser	50,000	
		Market Street Arena, replace compressors and condenser	95,000	
		Beverly Arena, replace compressors and chiller	80,000	
		Carlisle Arena, replace compressors and condenser	90,000	

City of Hamilton February 5, 2009 COW Revised Capital Project Listing

Department / Division / Section	Capital Project	Additional Information	Cost	Rationale for ISF Exclusion:
Community Services - Recreation	Parking Lot Rehabilitation - Repair and replacement of parking lots at arenas and recreation centres	Rosedale Arena, repair parking lot and repaint lines	10,000	
		Riverdale Community Centre - repair parking lot and repaint lines	10,000	
		Huntington Park, repave parking lot	300,000	
		Sir Allen Macab, repave parking lot	110,000	
		Saltfleet Arena, new area for snow dumping	25,000	
Community Services - Recreation	Arena Retrofit Program - Complete the backlog of construction and repairs in the City owned arenas	Coronation Arena, new rink boards and girls change room	120,000	
		Lawfield Arena, new rubber flooring	70,000	
		Chedoke Arena, new rubber flooring and washroom upgrades	140,000	
		Saltfleet Arena, new rubber flooring and washroom upgrades	100,000	
		Glanbrook Arena, washroom upgrades	30,000	
		Morgan Firestone Arena, replace rink boards	350,000	
		Replace ceiling tiles, doors and washroom upgrades	135,000	
Community Services - Recreation	Roof Replacements and Repairs - Renewal and replacement of aging roof systems	Central Memorial - replace roof	190,000	
		Riverdale Community Centre - replace roof	207,000	
		Mohawk Sports Park - replace roof	51,000	
		Valley Park Community Centre - replace roof	100,000	
Community Services - Recreation	Recreation Facility Retrofits - Complete the backlog of construction and repairs in the City owned recreation facilities	Ryerson Recreation Centre - replace pool equipment	85,000	
		Huntington Park Community Centre - locker and floor replacement	110,000	
		Mount Hope Hall - window Replacement	65,000	
		Carlisle Hall - repaint and refinish the floor.	20,000	
		Ancaster Rotary Centre - replace water line to west side.	70,000	
		Ancaster Old Town Hall - repaint and replace windows.	60,000	
		Dundas Indoor Pool - replace tile flooring	100,000	
		Facilities to be determine Q2 2009 after visual inspections - Facility Structural assessments	250,000	
Community Services - Recreation	Exterior and Foundations - Repair exterior structure and foundations on recreation facilities	Carlisle Hall - repoint brick work	75,000	
		Ancaster Aquatic Centre - repoint brick work	75,000	
		Central Memorial - replace pool boiler	35,000	
Community Services - Recreation	Recreation Facilities Mechanical-Electrical Retrofits - Replace existing mechanical equipment	Sir Wilfrid Laurier Community Centre - fire panel conversion	30,000	
		Valley Park Community Centre - HVAC replacement	200,000	
		Saltfleet Arena - replace gas furnace	35,000	
		Spring Valley Arena - replace gas furnace	35,000	
		Westoby Arena - replace gas furnace	35,000	
		Carlisle Arena - replace gas furnace	35,000	
Corporate Services - Customer Services, Access and Equity	Accessibility Improvements to the Stoney Creek Municipal Service Centre & the Glanbrook Service Centre		80,000	
Corporate Services - Customer Services, Access and Equity	Voice-enable the Automated Attendant Directory for Accessibility		75,000	
Corporate Services - Customer Services, Access and Equity	Modify/enhance customer service counters for accessibility (various facilities)		250,000	
Corporate Services - Customer Services, Access and Equity	Accessibility Feedback and Complaint Tracking Implementation		80,000	
HES	Fire/Police Training Facility		20,000,000	

City of Hamilton February 5, 2009 COW Revised Capital Project Listing

Department / Division / Section	Capital Project	Additional Information	Cost	Rationale for ISF Exclusion:
Planning & Economic Development	West Hamilton Innovation Park (WHID) - 30 acres - \$10M	There are two properties totaling about 30 acres which should be purchased to further advance the goals and objectives of the WHID in partnership with McMaster.	10,000,000	Projects that will not meet March 31, 2011 ISF Completion requirement
Planning & Economic Development	Hamilton International Airport Expansion - 300 acres - \$25-30M		30,000,000	Projects that will not meet March 31, 2011 ISF Completion requirement
Planning & Economic Development	Ancaster IBP:	Comorant Dr. Extension - \$10-12M	12,000,000	Projects that will not meet March 31, 2011 ISF Completion requirement
		Shaver Rd./Trustwood Expansion - \$5-6M	6,000,000	Projects that will not meet March 31, 2011 ISF Completion requirement
		Duff's Corner stormwater management facilities - \$5-7M	7,000,000	Projects that will not meet March 31, 2011 ISF Completion requirement
Planning & Economic Development	Stoney Creek IBP	Stormwater management facilities - Ponds #6-9 / Arvin Road Extension - \$30-35M	35,000,000	Projects that will not meet March 31, 2011 ISF Completion requirement
Planning & Economic Development	Hamilton Mountain IBP:	Trinity Church Rd. extension north of Rymal Rd. E. - \$25-30M	30,000,000	
Planning & Economic Development	North Glanbrook IBP:	Trinity Church Rd. extension south of Rymal Rd. E. - \$25-30M	30,000,000	Projects that will not meet March 31, 2011 ISF Completion requirement
Planning & Economic Development	Pan Am Games - sport facilities	City contribution to new stadium, velodrome and pool. Additional information to be provided at February 23, 2009 CoW meeting. Bid award to take place in November, 2009. Only if Canada were to be awarded the Games would capital contributions, in the for	235,000,000	Projects that will not meet March 31, 2011 ISF Completion requirement
Planning & Economic Development	Gateway Tourist Information Centre	Construction of a new gateway tourist information centre at Fifty Road/QEW to provide a "signature entrance" for Hamilton and provision of tourist information services.	5,000,000	Projects that will not meet March 31, 2011 ISF Completion requirement
Public Works - Energy	Fire Stations - Lighting retrofits at all stations		1,225,000	
Public Works - Energy	Libraries - Lighting retrofits at all sites		800,000	
Public Works - Energy	Yards - Lighting retrofits at all stations		700,000	
Public Works - Energy	Facilities (e.g. 330 Wentworth) - Lighting at PW sites		400,000	
Public Works - Energy	Court House - 50 Main - Lighting, boilers, chillers at 50 Main		1,500,000	
Public Works - Energy	Hamilton Convention Ctr. - Lighting, HVAC at Convention Centre		1,200,000	
Public Works - Energy	Lister Block District Cooling and Heating		1,400,000	
Public Works - Energy	Copps Coliseum - Lighting		350,000	
Public Works - Energy	Fire Stations - Electrical and Mechanical (HVAC) upgrades		1,500,000	
Public Works - Energy	District Cooling System - Chiller replacement in City Core		8,500,000	
Public Works - Energy	Interval Meters Project - 50 interval meters installed at various City sites		200,000	
Public Works - Energy	Arenas - Lighting		400,000	
Public Works - Energy	Downtown Core Bldgs. - Pumps, Drives into HCC, CH, ElFair, Art G, H PI		500,000	
Public Works - Energy	Ivor Wynne - Water conservation		50,000	
Public Works - Energy	Solar Water - Maccassa heating water for laundry		340,000	
Public Works - Energy	Solar Water - Valley Park heating pool water		340,000	
Public Works - Energy	Gage Park - Greenhouse boilers		260,000	
Public Works - Facilities	City Hall Renovations		75,900,000	
Public Works - EMS/Energy	Station 23 Renovation		1,300,000	Projects that will not meet March 31, 2011 ISF Completion requirement
Public Works - Open Space Development	Heritage Green Sports Park, construction of a regulation soccer field,		960,000	Projects that will not meet March 31, 2011 ISF Completion requirement
Public Works - Open Space Development	Pedestrian/Recreational Trail Bridge Crossing of the Lincoln Alexander Expressway, (to cross the highway barrier for a proposed 10 km trail system)		1,390,000	Projects that will not meet March 31, 2011 ISF Completion requirement
Public Works - Open Space Development	Gage Park, rehabilitation of historic park		650,000	
Public Works - Roads Program	Local and Collector Roadway Asset Preservation	Berrisfield Neighbourhood	35,000,000	
		Centremount Neighbourhood		
		Gibson Neighbourhood (north section)		
		Glenview East Neighbourhood		

City of Hamilton February 5, 2009 COW Revised Capital Project Listing

Department / Division / Section	Capital Project	Additional Information	Cost	Rationale for ISF Exclusion:
		Greenington Neighbourhood		
		Pleasant Valley West Neighbourhood		
		Raleigh Neighbourhood		
		Westcliffe East Neighbourhood		
		Westcliffe West Neighbourhood		
Public Works - Roads Program	Arterial Roadway Asset Preservation	Beach Boulevard - Woodward to Eastport	10,000,000	
		Concession Street (Vola to Upper Sherman & Upper Gage to Upper Ottawa)		
		Highway No.8 (Gray Road to Dewitt Road)		
		King Street (Cootes drive to bridge west of Bond Street)		
		Mud Street / LINC Rehabilitation		
		Queenston Road (Pottruff to Donn)		
Public Works - Roads Program	Structural Rehabilitation and Maintenance	Bridge and Culvert Sustainability plan	5,000,000	
		Various Bridge and Culvert rehabilitation and maintenance		
Public Works - Roads Program	2010 Reconstruction pressures	Bilardi/Embury/Osbourne/Talbot	10,000,000	
		East 38th Street - Fennell to Queensdale / Burns Pl / Patricia Pl		
		Lake Avenue Drive - Queenston to King		
		Queensdale Avenue - Upper Gage to Upper Ottawa		
Public Works - Water/WasteWater	Sewage Treatment Plant		700,000,000	
Public Works - Water/WasteWater	Water Treatment Plant	Structural Upgrades	42,500,000	
			<u>1,665,018,110</u>	

Projects added post February 5, 2009 COW

Department / Division / Section	Capital Project	Additional Information	Cost
Planning & Economic Development	Road Urbanization - Binbrook Road West	Binbrook Road West from Hwy 56 to Royal Winter Drive (approx. 1.2 Km)	8,000,000
Planning & Economic Development	Road Urbanization - Hwy 56	Hwy 56 from Hydro One Easement to Cemetery Road (approx. 1.8 Km)	11,000,000
Planning & Economic Development	Road Urbanization - Rymal Road East	Rymal Road East from Dartnall Road to Upper Centennial Road (approx. 4.9 Km)	33,000,000
Public Works- O&M-Traffic	Traffic Control System	Signalized Control upgrades	10,000,000
Public Works - Open Space Development	Victoria Park- Phase 3, 516 King Street West, Hamilton	Park Redevelopment - Lighting, walkways	900,000
Public Works - Open Space Development	Glanbrook Sports Complex, 4300 Binbrook Road, Binbrook, Hamilton	Conversion of 1 Soccer Field to Artificial Turf	1,650,000
Public Works - Open Space Development	Courtcliffe Park, 159 Carlisle Road, Flamborough, Hamilton	Permeable Surface Parking Lot - 300 vehicles and planting	1,200,000
Public Works - Open Space Development	William McCulloch Park, 200 Bonaventure Drive, Hamilton	Park Redevelopment - reconfiguration of ball fields with addition of 3 ball fields, parking, playground	1,000,000
Public Works - Open Space Development	Billy Sherring Park, 1530 Upper Sherman Avenue, Hamilton	Conversion of 1 Soccer Field to Artificial Turf	1,650,000
Public Works - Open Space Development	Turner Park, 344 Rymal Road East, Hamilton	Lighting 4 ball fields and servicing, replacing ball fields lost at Globe Park	1,100,000
Tradeport International Corporation	Terminal Expansion	To facilitate 2.5 million+ passengers annually including new 2nd and 3rd floors	60,000,000
Tradeport International Corporation	Runway Expansion	Lengthen runway by 3,000 foot (total 9,000 foot)	20,000,000
Tradeport International Corporation	Multi-tenant Cargo	Develop 80,000 sq.ft. cross dock facility	12,000,000

Authority: Item 1, Committee of the Whole
Report 09-013 (FCS09052)
CM: April 29, 2009

Bill No. 087

**CITY OF HAMILTON
BY-LAW NUMBER 09-087**

**A BY-LAW TO AUTHORIZE THE SUBMISSION OF
APPLICATIONS TO CANADA-ONTARIO INFRASTRUCTURE
SECRETARIAT FOR FUNDING FROM THE INFRASTRUCTURE
STIMULUS FUND PROGRAM AS ELIGIBLE CAPITAL PROJECTS
OF THE CITY OF HAMILTON,**

WHEREAS the *Municipal Act, 2001* (Ontario), as amended, (the "Act") provides that a municipal power shall be exercised by by-law unless the municipality is specifically authorized to do otherwise;

AND WHEREAS the Government of Canada has recently announced an investment of \$4 billion dollars nationally under the Infrastructure Investment Fund;

AND WHEREAS on behalf of the Government of Canada, the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) will be administering the Infrastructure Investment Fund available to Ontario municipalities for the purposes of eligible municipal infrastructure initiative projects;

AND WHEREAS it is now deemed to be expedient to authorize for the municipal purposes of the Municipality the capital projects described in Schedule "A" (the "**Project**") attached hereto and forming part of this By-law ("**Schedule A**") in the amount of the estimated expenditures set out in Schedule "A";

AND WHEREAS the Federal and Provincial governments have invited eligible Ontario municipalities desirous of obtaining funding pursuant to the Infrastructure Investment Fund in order to meet capital expenditures in connection with eligible capital projects for such funding by completing and submitting applications through the form provided (the "**Application**");

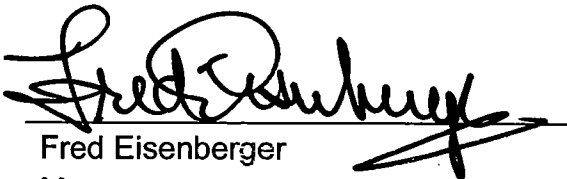
AND WHEREAS the Municipality has submitted an Application to the Federal and Provincial governments to request funding in respect of the Projects;

NOW THEREFORE THE COUNCIL OF THE CITY OF HAMILTON ENACTS
AS FOLLOWS:

To Authorize the Submission of Applications to Canada-Ontario Infrastructure
Secretariat For Funding from the Infrastructure Stimulus Fund Program as
Eligible Capital Projects of the City of Hamilton
Page 2 of 9

1. The Council of the Municipality hereby confirms, ratifies and approves the completion by the Acting General Manager of Finance and Corporate Services of Applications and the submissions by such authorized official of Applications, duly executed by such authorized official, to the Federal and Provincial governments for the funding of the Projects in connection with the Infrastructure Investment Fund in the maximum aggregate principal amount of \$407,823,013 (the "Funding").
2. This By-law takes effect on the day of passing.

PASSED AND ENACTED this 29th day of April, 2009.


Fred Eisenberger
Mayor


Kevin C. Christenson
City Clerk

Schedule "A"
to By-Law Number 09-087

Rank #	ISF #	Department / Division / Section	Capital Project Description	Project Type: Rehabilitation / New Construction / Expansion	Costs	Cumulative Total
1	1212	Public Works - Water/WasteWater	Water Treatment Plant Upgrades	Rehabilitation	\$ 42,000,000	\$ 42,000,000
2	1320	Planning & Economic Development	Road Urbanization - Trinity Church Road	New Construction	\$ 10,500,000	\$ 52,500,000
3	1728	HES	Emergency Services Training Facility /Emergency Operations Centre	New Construction	\$ 25,000,000	\$ 77,500,000
4	1880	Community Services - Housing	Seniors Housing - First Place	Rehabilitation	\$ 5,000,000	\$ 82,500,000
5	1527	Public Works - Roads Program	Road Rehabilitation - Beach Boulevard - Woodward to Eastport	Rehabilitation	\$ 2,500,002	\$ 85,000,002
6	1499	Public Works - Roads Program	Road Rehabilitation - Concession Street Rehabilitation	Rehabilitation	\$ 3,399,999	\$ 88,400,001
7	1299	Public Works - Roads Program	Road Rehabilitation - LINC - Hwy.403 to Dartnall Road	Rehabilitation	\$ 5,000,001	\$ 93,400,002
8	1202	Public Works - Roads Program	Road Rehabilitation - King Street - Downtown Dundas Rehabilitation	Rehabilitation	\$ 3,200,001	\$ 96,600,003
9	1356	Public Works - Roads Program	Road Rehabilitation - Highway No 8 - Gray Road to Dewitt Road	Rehabilitation	\$ 4,200,000	\$ 100,800,003
10	1278	Public Works - Roads Program	Road Rehabilitation - Mud Street - Paramount Drive to Upper Centennial Pkwy	Rehabilitation	\$ 2,000,001	\$ 102,800,004
11	1228	Public Works - Roads Program	Road Rehabilitation - Queenston Road - Pottruff to Donn	Rehabilitation	\$ 2,400,000	\$ 105,200,004
12	1273	Public Works - Roads Program	Road Rehabilitation - Paramount Drive - Mud to Winterberry	Rehabilitation	\$ 1,200,000	\$ 106,400,004
13	1374	Public Works - Roads Program	Road Reconstruction - Governors Road & Davidson Roundabout	Rehabilitation	\$ 1,400,001	\$ 107,800,005
14	1471	Public Works - Roads Program	Road Rehabilitation - Fennell Avenue - Upper Ottawa to Mountain Brow	Rehabilitation	\$ 1,299,999	\$ 109,100,004
15	1334	Public Works - Roads Program	Road Reconstruction - Highway No.8 - Hillcrest to Park	Rehabilitation	\$ 3,900,000	\$ 113,000,004
16	1213	Public Works - Roads Program	Road Rehabilitation - York Road - Newman Road to Valley Road	Rehabilitation	\$ 2,000,001	\$ 115,000,005
17	1290	Public Works - Roads Program	Road Reconstruction - Mountain Brow Boulevard	Rehabilitation	\$ 2,499,999	\$ 117,500,004
18	968	Public Works - Energy	Energy Retrofit - 700 Woodward Ave	Rehabilitation	\$ 4,500,000	\$ 122,000,004
19	898	Public Works - Energy	Energy Retrofit - Lister District Energy Expansion	Rehabilitation	\$ 1,200,000	\$ 123,200,004
20	1015	Public Works - Energy	Energy Retrofit - Hamilton Convention Center	Rehabilitation	\$ 1,500,000	\$ 124,700,004
21	823	Public Works - Energy	Energy Retrofit - Hamilton Place	Rehabilitation	\$ 1,500,000	\$ 126,200,004
22	783	Public Works - Energy	Energy Retrofit - Copps Coliseum	Rehabilitation	\$ 1,700,000	\$ 127,900,004
23	1053	Public Works - Energy	Energy Retrofit - Fire Station #24 - 252 Parkside Dr. E	Rehabilitation	\$ 26,500	\$ 127,926,504
24	1070	Public Works - Energy	Energy Retrofit - Fire Station #23 - 19 Memorial Square	Rehabilitation	\$ 26,000	\$ 127,952,504
25	1083	Public Works - Energy	Energy Retrofit - Fire Station #05 - 1000 Limeridge Road E	Rehabilitation	\$ 23,000	\$ 127,975,504
26	739	Public Works - Energy	Energy Retrofit - Central Public Library - 55 York Blvd.	Rehabilitation	\$ 608,000	\$ 128,583,504
27	855	Public Works - Energy	Energy Retrofit - Terryberry Library - 100 Mohawk Road W	Rehabilitation	\$ 88,500	\$ 128,672,004
28	798	Public Works - Energy	Energy Retrofit - Sherwood Library - 467 Upper Ottawa	Rehabilitation	\$ 61,000	\$ 128,733,004
29	947	Public Works - Energy	Energy Retrofit - Wentworth Ops Ctr. - 330 Wentworth	Rehabilitation	\$ 800,000	\$ 129,533,004
30	989	Public Works - Energy	Energy Retrofit - Gage Park Green House - 1000 Main St E	Rehabilitation	\$ 1,000,000	\$ 130,533,004
31	1017	Public Works - Energy	Energy Retrofit - LightSaver LED Pilot - TH&B Tunnel	Rehabilitation	\$ 55,000	\$ 130,588,004
32	1721	Community Services - Culture	Curatorial Centre at Auchmar	Rehabilitation	\$ 10,000,002	\$ 140,588,006

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Rank #	ISF #	Department / Division / Section	Capital Project Description	Project Type: Rehabilitation / New Construction / Expansion	Costs	Cumulative Total
33	1666	Community Services - Housing	New seniors building - 690 Stone Church Road West,	New Construction	\$ 3,600,000	\$ 144,188,006
34	967	Planning & Economic Development	Road Urbanization - Rymal Road East - from Dartnall Road to Upper Centennial Road	Expansion	\$ 32,999,997	\$ 177,188,003
35	1672	PW - Parks Open Space	Victoria Park redevelopment	Rehabilitation	\$ 900,000	\$ 178,088,003
36	2146	PW - Parks Open Space	Glanbrook Sports Complex Redevelopment	Rehabilitation	\$ 1,650,000	\$ 179,738,003
37	569	PW - Parks Open Space	Courtcliffe Park, permeable parking lot 300 vehicles	Rehabilitation	\$ 1,200,000	\$ 180,938,003
38	1696	PW - Parks Open Space	William McCulloch Park, redevelopment ball diamonds	Rehabilitation	\$ 1,000,002	\$ 181,938,005
39	1638	PW - Parks Open Space	Billy Sherring Park, Artificial Turf Soccer Field	Rehabilitation	\$ 1,650,000	\$ 183,588,005
40	1658	PW - Parks Open Space	Turner Park Ball Field Sports Field Lighting & Servicing	Rehabilitation	\$ 1,100,001	\$ 184,688,006
41	1602	Community Services - Housing	Housing - 95 King Street East,	Rehabilitation	\$ 4,000,000	\$ 188,688,006
42	1771	PW - Traffic	Traffic Signal Control Systems Technology Upgrade	Rehabilitation	\$ 10,000,002	\$ 198,688,008
43	589	Public Works - Roads Program	Road Rehabilitation - Bryna Avenue - Huntsville to Upper Wellington (Greeningdon Neighbourhood)	Rehabilitation	\$ 130,200	\$ 198,818,208
44	633	Public Works - Roads Program	Road Rehabilitation - Coronet Court - Luscombe to end (Greeningdon Neighbourhood)	Rehabilitation	\$ 25,000	\$ 198,843,208
45	636	Public Works - Roads Program	Road Rehabilitation - Deschene Avenue - Luscombe to June (Greeningdon Neighbourhood)	Rehabilitation	\$ 580,000	\$ 199,423,208
46	641	Public Works - Roads Program	Road Rehabilitation - Greeningdon Drive - Hester to Manning (Greeningdon Neighbourhood)	Rehabilitation	\$ 383,000	\$ 199,806,208
47	909	Public Works - Roads Program	Road Rehabilitation - Huntsville Street - Deschene to June (Greeningdon Neighbourhood)	Rehabilitation	\$ 203,000	\$ 200,009,208
48	630	Public Works - Roads Program	Road Rehabilitation - June Street - Manning to Huntville (Greeningdon Neighbourhood)	Rehabilitation	\$ 158,000	\$ 200,167,208
49	934	Public Works - Roads Program	Road Rehabilitation - Limeridge Road East - Ridge to Upper Wellington (Greeningdon Neighbourhood)	Rehabilitation	\$ 725,001	\$ 200,892,209
50	923	Public Works - Roads Program	Road Rehabilitation - Luscombe Street - Hayden to Upper Wellington (Greeningdon Neighbourhood)	Rehabilitation	\$ 560,001	\$ 201,452,210
51	689	Public Works - Roads Program	Road Rehabilitation - Maitland Avenue - June to Limeridge (Greeningdon Neighbourhood)	Rehabilitation	\$ 77,601	\$ 201,529,811
52	695	Public Works - Roads Program	Road Rehabilitation - Manning Avenue - Luscombe to end (Greeningdon Neighbourhood)	Rehabilitation	\$ 654,999	\$ 202,184,810
53	738	Public Works - Roads Program	Road Rehabilitation - Purdy Crescent - Greeningdon to end (Greeningdon Neighbourhood)	Rehabilitation	\$ 399,999	\$ 202,584,809
54	792	Public Works - Roads Program	Road Rehabilitation - Ridge Street - Hester to Limeridge (Greeningdon Neighbourhood)	Rehabilitation	\$ 380,001	\$ 202,964,810
55	897	Public Works - Roads Program	Road Rehabilitation - Victor Boulevard - Ridge to Ridge (Greeningdon Neighbourhood)	Rehabilitation	\$ 500,001	\$ 203,464,811
56	912	Public Works - Roads Program	Road Rehabilitation - Washington Street - Purdy to Deschene (Greeningdon Neighbourhood)	Rehabilitation	\$ 110,000	\$ 203,574,811
57	585	Public Works - Roads Program	Road Rehabilitation - Astra Court - Jaunita to end (Westcliffe East Neighbourhood)	Rehabilitation	\$ 46,700	\$ 203,621,511

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Rank #	ISF #	Department / Division / Section	Capital Project Description	Project Type: Rehabilitation / New Construction / Expansion	Costs	Cumulative Total
58	1817	Public Works - Roads Program	Road Rehabilitation - Bendamere Avenue - West 26th to Upper Paradise (Westcliffe East Neighbourhood)	Rehabilitation	\$ 225,000	\$ 203,846,511
59	600	Public Works - Roads Program	Road Rehabilitation - Brenlyn Court - Sanatorium to end (Westcliffe East Neighbourhood)	Rehabilitation	\$ 118,009	\$ 203,964,520
60	736	Public Works - Roads Program	Road Rehabilitation - Elmwood Avenue - Garth to Upper Paradise (Westcliffe East Neighbourhood)	Rehabilitation	\$ 790,000	\$ 204,754,520
61	617	Public Works - Roads Program	Road Rehabilitation - Fisher Crescent - Bendamere to Bendamere (Westcliffe East Neighbourhood)	Rehabilitation	\$ 330,000	\$ 205,084,520
62	946	Public Works - Roads Program	Road Rehabilitation - Juanita Drive - Brenlyn to Mohawk (Westcliffe East Neighbourhood)	Rehabilitation	\$ 355,000	\$ 205,439,520
63	981	Public Works - Roads Program	Road Rehabilitation - Leeward Place - Juanita to end (Westcliffe East Neighbourhood)	Rehabilitation	\$ 12,270	\$ 205,451,790
64	804	Public Works - Roads Program	Road Rehabilitation - Sanatorium Road - Garth to Upper Paradise (Westcliffe East Neighbourhood)	Rehabilitation	\$ 579,000	\$ 206,030,790
65	845	Public Works - Roads Program	Road Rehabilitation - West 22nd Street - Fisher to Sanatorium (Westcliffe East Neighbourhood)	Rehabilitation	\$ 205,000	\$ 206,235,790
66	868	Public Works - Roads Program	Road Rehabilitation - West 23rd Street - Leslie to Sanatorium (Westcliffe East Neighbourhood)	Rehabilitation	\$ 530,000	\$ 206,765,790
67	879	Public Works - Roads Program	Road Rehabilitation - West 24th Street - Leslie to Sanatorium (Westcliffe East Neighbourhood)	Rehabilitation	\$ 729,900	\$ 207,495,690
68	838	Public Works - Roads Program	Road Rehabilitation - West 25th Street - Leslie to Sanatorium (Westcliffe East Neighbourhood)	Rehabilitation	\$ 275,000	\$ 207,770,690
69	818	Public Works - Roads Program	Road Rehabilitation - West 27th Street - Price to Sanatorium (Westcliffe East Neighbourhood)	Rehabilitation	\$ 930,000	\$ 208,700,690
70	618	Public Works - Roads Program	Road Rehabilitation - Burns Place - East 38th to end (Raleigh Neighbourhood)	Rehabilitation	\$ 75,350	\$ 208,776,040
71	642	Public Works - Roads Program	Road Rehabilitation - East 31st Street - Concession to Fennell (Raleigh Neighbourhood)	Rehabilitation	\$ 599,934	\$ 209,375,974
72	645	Public Works - Roads Program	Road Rehabilitation - East 32nd Street - Concession to Crockett (Raleigh Neighbourhood)	Rehabilitation	\$ 155,325	\$ 209,531,299
73	664	Public Works - Roads Program	Road Rehabilitation - East 33rd Street - Concession to Queensdale (Raleigh Neighbourhood)	Rehabilitation	\$ 186,150	\$ 209,717,449
74	675	Public Works - Roads Program	Road Rehabilitation - East 34th Street - Fennell to Queensdale (Raleigh Neighbourhood)	Rehabilitation	\$ 330,000	\$ 210,047,449
75	685	Public Works - Roads Program	Road Rehabilitation - East 35th Street - private road to Crockett (Raleigh Neighbourhood)	Rehabilitation	\$ 225,000	\$ 210,272,449
76	696	Public Works - Roads Program	Road Rehabilitation - East 36th Street - Crockett to end (Raleigh Neighbourhood)	Rehabilitation	\$ 245,000	\$ 210,517,449
77	708	Public Works - Roads Program	Road Rehabilitation - East 38th Street - Queensdale to Fennell (Raleigh Neighbourhood)	Rehabilitation	\$ 530,000	\$ 211,047,449
78	726	Public Works - Roads Program	Road Rehabilitation - East 39th Street - Queensdale to Crockett (Raleigh Neighbourhood)	Rehabilitation	\$ 156,100	\$ 211,203,549
79	717	Public Works - Roads Program	Road Rehabilitation - Mountain Park Avenue - Upper Sherman to Concession (Raleigh Neighbourhood)	Rehabilitation	\$ 600,000	\$ 211,803,549
80	725	Public Works - Roads Program	Road Rehabilitation - Patricia Place - Est 38th to end (Raleigh Neighbourhood)	Rehabilitation	\$ 62,001	\$ 211,865,550
81	859	Public Works - Roads Program	Road Rehabilitation - Upper Sherman Avenue - Concession to Mountain Park (Raleigh Neighbourhood)	Rehabilitation	\$ 149,001	\$ 212,014,551

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Rank #	ISF #	Department / Division / Section	Capital Project Description	Project Type: Rehabilitation / New Construction / Expansion	Costs	Cumulative Total
82	910	Public Works - Roads Program	Road Rehabilitation - Virginia Court - Brucedale to end (Raleigh Neighbourhood)	Rehabilitation	\$ 135,000	\$ 212,149,551
83	568	Public Works - Roads Program	Road Rehabilitation - Bendamere Avenue - Upper Paradise to West 35th (Westcliffe West Neighbourhood)	Rehabilitation	\$ 347,750	\$ 212,497,301
84	825	Public Works - Roads Program	Road Rehabilitation - Elmwood Avenue - Upper Paradise to West 33rd (Westcliffe West Neighbourhood)	Rehabilitation	\$ 173,900	\$ 212,671,201
85	950	Public Works - Roads Program	Road Rehabilitation - Leslie Avenue - Upper Paradise to West 35th (Westcliffe West Neighbourhood)	Rehabilitation	\$ 260,349	\$ 212,931,550
86	809	Public Works - Roads Program	Road Rehabilitation - Sanatorium Road - Upper Paradise to Rice (Westcliffe West Neighbourhood)	Rehabilitation	\$ 319,431	\$ 213,250,981
87	959	Public Works - Roads Program	Road Rehabilitation - Kings Gate - Monarch to Pleasant (Pleasant Valley West Neighbourhood)	Rehabilitation	\$ 71,550	\$ 213,322,531
88	710	Public Works - Roads Program	Road Rehabilitation - Monarch Court - Kings Gate to end (Pleasant Valley West Neighbourhood)	Rehabilitation	\$ 207,879	\$ 213,530,410
89	557	Public Works - Roads Program	Road Rehabilitation - Orchard Avenue - Turnbull to Pleasant (Pleasant Valley West Neighbourhood)	Rehabilitation	\$ 197,790	\$ 213,728,200
90	788	Public Works - Roads Program	Road Rehabilitation - Rhodes Court - Turnbull to end (Pleasant Valley West Neighbourhood)	Rehabilitation	\$ 43,980	\$ 213,772,180
91	834	Public Works - Roads Program	Road Rehabilitation - Terrace Drive - Turnbull to Turnbull (Pleasant Valley West Neighbourhood)	Rehabilitation	\$ 547,599	\$ 214,319,779
92	848	Public Works - Roads Program	Road Rehabilitation - Turnbull Road - Autumn Leaf to end (Pleasant Valley West Neighbourhood)	Rehabilitation	\$ 586,500	\$ 214,906,279
93	875	Public Works - Roads Program	Road Rehabilitation - Valleyview Court - Pleasant to end (Pleasant Valley West Neighbourhood)	Rehabilitation	\$ 97,569	\$ 215,003,848
94	688	Public Works - Roads Program	Road Rehabilitation - Whitfield Court - Turnbull to end (Pleasant Valley West Neighbourhood)	Rehabilitation	\$ 38,970	\$ 215,042,818
95	560	Public Works - Roads Program	Road Rehabilitation - Adams Street - Cannon to end (Gibson Neighbourhood)	Rehabilitation	\$ 40,650	\$ 215,083,468
96	570	Public Works - Roads Program	Road Rehabilitation - Arthur Avenue North - King to Wilson (Gibson Neighbourhood)	Rehabilitation	\$ 136,200	\$ 215,219,668
97	626	Public Works - Roads Program	Road Rehabilitation - Chestnut Avenue - Wilson to Barton (Gibson Neighbourhood)	Rehabilitation	\$ 298,200	\$ 215,517,868
98	603	Public Works - Roads Program	Road Rehabilitation - Earl Street - Barton to end (Gibson Neighbourhood)	Rehabilitation	\$ 246,000	\$ 215,763,868
99	588	Public Works - Roads Program	Road Rehabilitation - Farleigh Avenue North - King to Wilson (Gibson Neighbourhood)	Rehabilitation	\$ 141,000	\$ 215,904,868
100	598	Public Works - Roads Program	Road Rehabilitation - Fife Street - Chestnut to Sherman (Gibson Neighbourhood)	Rehabilitation	\$ 88,200	\$ 215,993,068
101	606	Public Works - Roads Program	Road Rehabilitation - Fullerton Avenue - Barton to Princess (Gibson Neighbourhood)	Rehabilitation	\$ 136,200	\$ 216,129,268
102	627	Public Works - Roads Program	Road Rehabilitation - Gibson Avenue - King to end (Gibson Neighbourhood)	Rehabilitation	\$ 640,000	\$ 216,769,268
103	632	Public Works - Roads Program	Road Rehabilitation - Greenaway Avenue - Wilson to Cannon (Gibson Neighbourhood)	Rehabilitation	\$ 79,680	\$ 216,848,948
104	795	Public Works - Roads Program	Road Rehabilitation - Harvey Street - Sanford to Birch (Gibson Neighbourhood)	Rehabilitation	\$ 180,000	\$ 217,028,948

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Rank #	ISF #	Department / Division / Section	Capital Project Description	Project Type: Rehabilitation / New Construction / Expansion	Costs	Cumulative Total
105	819	Public Works - Roads Program	Road Rehabilitation - Hazel Avenue - Wilson to Cannon (Gibson Neighbourhood)	Rehabilitation	\$ 73,180	\$ 217,102,128
106	837	Public Works - Roads Program	Road Rehabilitation - Holton Avenue North - King to Wilson (Gibson Neighbourhood)	Rehabilitation	\$ 105,000	\$ 217,207,128
107	861	Public Works - Roads Program	Road Rehabilitation - Huntley Street - Cannon to end (Gibson Neighbourhood)	Rehabilitation	\$ 50,950	\$ 217,258,078
108	884	Public Works - Roads Program	Road Rehabilitation - Huron Street - Sanford to Stirton (Gibson Neighbourhood)	Rehabilitation	\$ 160,785	\$ 217,418,863
109	928	Public Works - Roads Program	Road Rehabilitation - Kinrade Avenue - Cannon to Barton (Gibson Neighbourhood)	Rehabilitation	\$ 220,000	\$ 217,638,863
110	679	Public Works - Roads Program	Road Rehabilitation - Madison Avenue - Wilson to end (Gibson Neighbourhood)	Rehabilitation	\$ 153,447	\$ 217,792,310
111	702	Public Works - Roads Program	Road Rehabilitation - Milton Avenue - Barton to Princess (Gibson Neighbourhood)	Rehabilitation	\$ 181,101	\$ 217,973,411
112	731	Public Works - Roads Program	Road Rehabilitation - Princess Street - Milton to Sherman (Gibson Neighbourhood)	Rehabilitation	\$ 420,000	\$ 218,393,411
113	822	Public Works - Roads Program	Road Rehabilitation - Stirton Street - King to Cannon (Gibson Neighbourhood)	Rehabilitation	\$ 194,001	\$ 218,587,412
114	705	Public Works - Roads Program	Road Rehabilitation - Westinghouse Avenue - Barton to Mylar (Gibson Neighbourhood)	Rehabilitation	\$ 100,600	\$ 218,688,012
115	2158	City	New Visitor Orientation Centre for the Westfield Heritage Village (Flamborough)	New Construction	\$ 1,500,000	\$ 220,188,012
116	999	Planning & Economic Development	Road Urbanization Binbrook Road West	Expansion	\$ 8,000,001	\$ 228,188,013
117	986	Planning & Economic Development	Road Urbanization Hwy 56	Expansion	\$ 10,999,998	\$ 239,188,011
118	1346	Community Services - Housing	Housing - 4 Bridgewater Court	New Construction	\$ 1,890,000	\$ 241,078,011
119	1743	Community Services - Culture	Dundurn Castle Renovations	Rehabilitation	\$ 10,000,002	\$ 251,078,013
120	660	Public Works - Water/WasteWater	Bio Gas/ Digester (Energy Recovery)	Rehabilitation and New	\$ 30,000,000	\$ 281,078,013
121	672	Public Works - Water/WasteWater	Ferguson Pumping Station Upgrades	Rehabilitation	\$ 20,000,000	\$ 301,078,013
122	687	Public Works - Water/WasteWater	Kenilworth Water Reservoir and Pumping Station Upgrades	Rehabilitation	\$ 6,800,000	\$ 307,878,013
123	700	Public Works - Water/WasteWater	Stone Church Water Reservoir and Pumping Station Upgrades	Rehabilitation	\$ 4,500,000	\$ 312,378,013
124	714	Public Works - Water/WasteWater	Hillcrest Water Reservoir Upgrades	Rehabilitation	\$ 8,600,000	\$ 320,978,013
125	1838	HECFI	Copps Coliseum - Replacement of Roof	Rehabilitation	\$ 1,500,000	\$ 322,478,013
126	1852	HECFI	Hamilton Place - Rehabilitation of Exterior Concrete Walls	Rehabilitation	\$ 249,999	\$ 322,728,012
127	2197	Community Services - Lodges	Macassa Lodge Kitchen & Dietary Refurbishment	Rehabilitation	\$ 1,400,000	\$ 324,128,012

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Rank #	ISF #	Department / Division / Section	Capital Project Description	Project Type: Rehabilitation / New Construction / Expansion	Costs	Cumulative Total
128	2273	Community Services - Lodges	Wentworth Lodge 1989 Wing Refurbishment	Rehabilitation	\$ 900,000	\$ 325,028,012
129	2239	Community Services - Lodges	Macassa Lodge Resident Care Equipment and Facility renovation	Rehabilitation	\$ 1,000,000	\$ 326,028,012
130	2380	Community Services - Recreation	Westmount Recreation Centre	New Construction	\$ 21,000,000	\$ 347,028,012
131	2296	Community Services - Recreation	Lower Stoney Creel Recreation Centre - Phase One	New Construction	\$ 13,000,000	\$ 360,028,012
132	2425	Community Services - Recreation	Morgan Firestone Arena Twinning	Expansion	\$ 10,275,000	\$ 370,303,012
133	2411	Community Services - Recreation	Sir Allen MacNab Rehabilitation Project	Rehabilitation	\$ 3,000,000	\$ 373,303,012
134	2524	Community Services - Recreation	Hill Park Rehabilitation	Rehabilitation	\$ 2,000,000	\$ 375,303,012
135	2400	Community Services - Recreation	Sir Wilfrid Laurier Rehabilitation	Rehabilitation	\$ 1,500,000	\$ 376,803,012
136	2356	Community Services - Recreation	Winona Seniors Expansion	Expansion	\$ 900,000	\$ 377,703,012
137	2481	Community Services - Recreation	Scott Park Arena Expansion	Expansion	\$ 2,000,000	\$ 379,703,012
138	2445	Community Services - Recreation	Parkdale Arena Retrofit	Rehabilitation	\$ 1,650,000	\$ 381,353,012
139	2373	Community Services - Recreation	Inch Park Arena Retrofit	Rehabilitation	\$ 1,500,000	\$ 382,853,012
140	2271	Community Services - Recreation	Rosedale Arena Retrofit	Rehabilitation	\$ 1,650,000	\$ 384,503,012
141	2232	Community Services - Recreation	Carlisle Arena Retrofit	Rehabilitation	\$ 970,000	\$ 385,473,012
142	2245	Community Services - Recreation	Rosedale Outdoor Pool Retrofit	Rehabilitation	\$ 2,000,000	\$ 387,473,012
143	2331	Community Services - Recreation	Green Acres Outdoor Pool Retrofit	Rehabilitation	\$ 2,000,000	\$ 389,473,012
144	2465	Community Services - Recreation	Parkdale Pool Retrofit	Rehabilitation	\$ 2,000,000	\$ 391,473,012
145	2385	Community Services - Recreation	Inch Park Pool Retrofit	Rehabilitation	\$ 2,000,000	\$ 393,473,012
146	2218	Community Services - Recreation	Birge Outdoor Pool Retrofit	Rehabilitation	\$ 2,000,001	\$ 395,473,013
147	2284	Community Services - Recreation	Chedoke Twin Pad Floor Replacement	Rehabilitation	\$ 1,050,000	\$ 396,523,013
148	2168	Community Services - Recreation	Beemer Park Washroom Facility	New Construction	\$ 300,000	\$ 396,823,013
149	2419	Community Services - Recreation	Redemeer College Soccer Complex	New Construction	\$ 8,000,000	\$ 404,823,013
150	2344	Community Services - Recreation	Coronation Arena Redevelopment	New Construction	\$ 3,000,000	\$ 407,823,013
Total					\$407,823,013	



“The City of Hamilton’s
energy intensity reduction
target is 1.5% per year”



The City of Hamilton's dedication to corporate energy conservation and environmental sustainability plays an important role in meeting its citizens need, protecting the human health, conserving natural resources, and supporting the local economy through job creation.

In 2011, the City of Hamilton implemented a number of energy efficiency projects that will bring in significant reductions in both energy consumption and energy cost. Guided by the Corporate Energy Policy (Reference: PW Report 07-014), the City of Hamilton is well on track in achieving its targeted energy reduction goals.

The Corporate Energy Policy is designed to:

- Facilitate achievement of City-wide energy reduction targets;
- Address legislated reporting requirements;
- Provide Energy Monitoring and Targeting of utility usage;
- Define policies regarding capital investment related to energy;
- Define policies related to energy procurement.

The Energy Policy calls for targeted energy reductions in energy intensity of City owned facilities and operations of:

3% by 2009

7.5% by 2012

20% by 2020



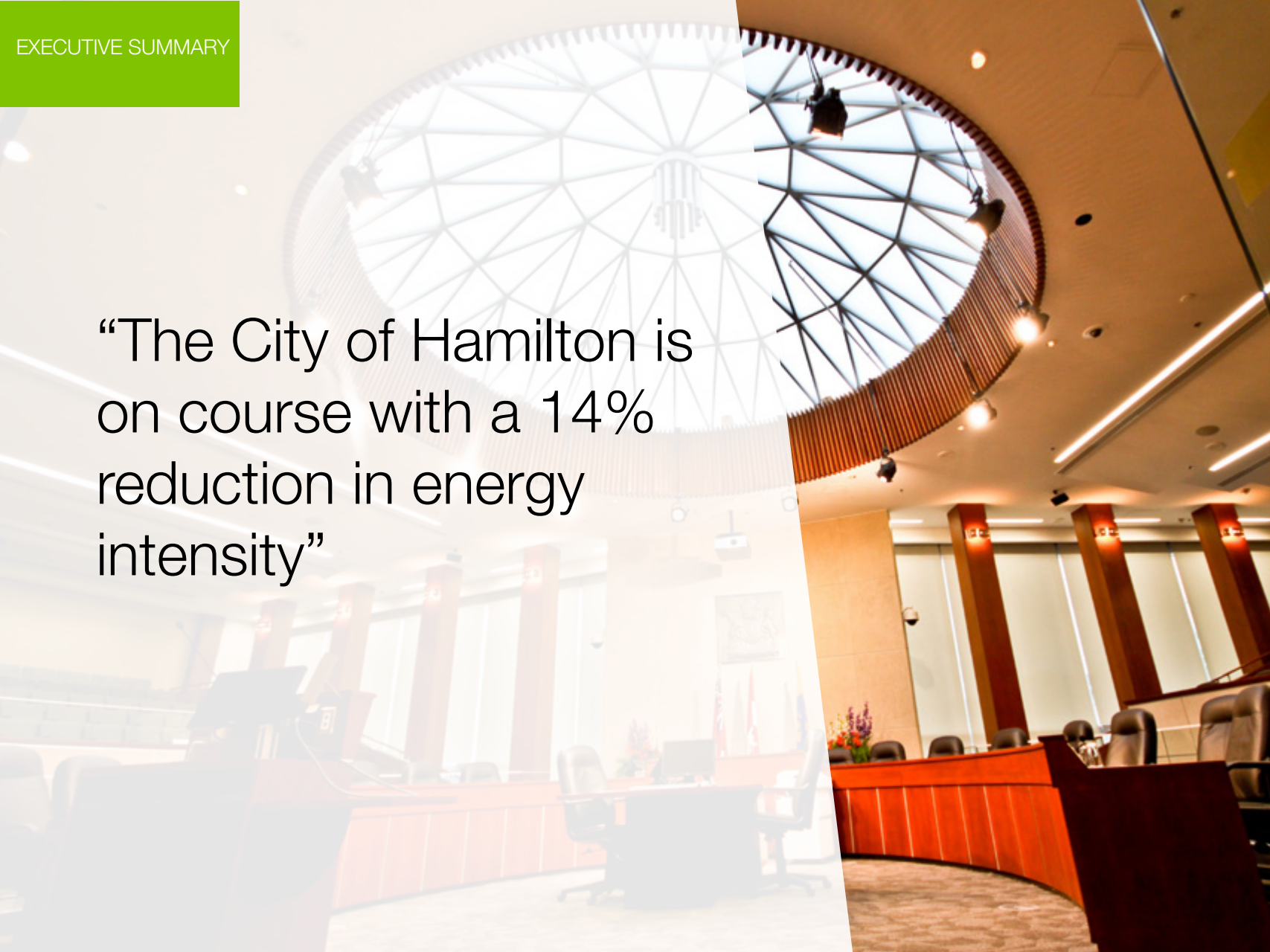
These targets equate to about 1.5% reduction in energy intensity per year with a recommendation that 2005 to be used as a base year for measuring results.

Energy intensity refers to equivalent kilowatt hours per square foot that is expressed as ekWh/Sq.ft. This is a combination of overall energy consumption per square foot for both electricity and natural gas. This is an industry standard key performance indicator (KPI).

Energy intensity relates only to built space such as corporate buildings, police and fire stations, but not water and wastewater, streetlighting and traffic operations. As with previous reports, this data is not weather corrected.



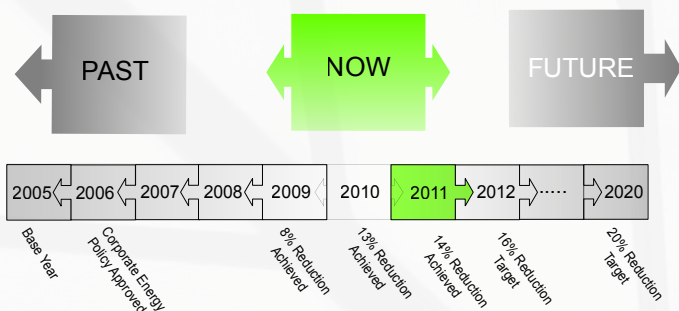
“The City of Hamilton is
on course with a 14%
reduction in energy
intensity”



14%

ENERGY INTENSITY REDUCTION

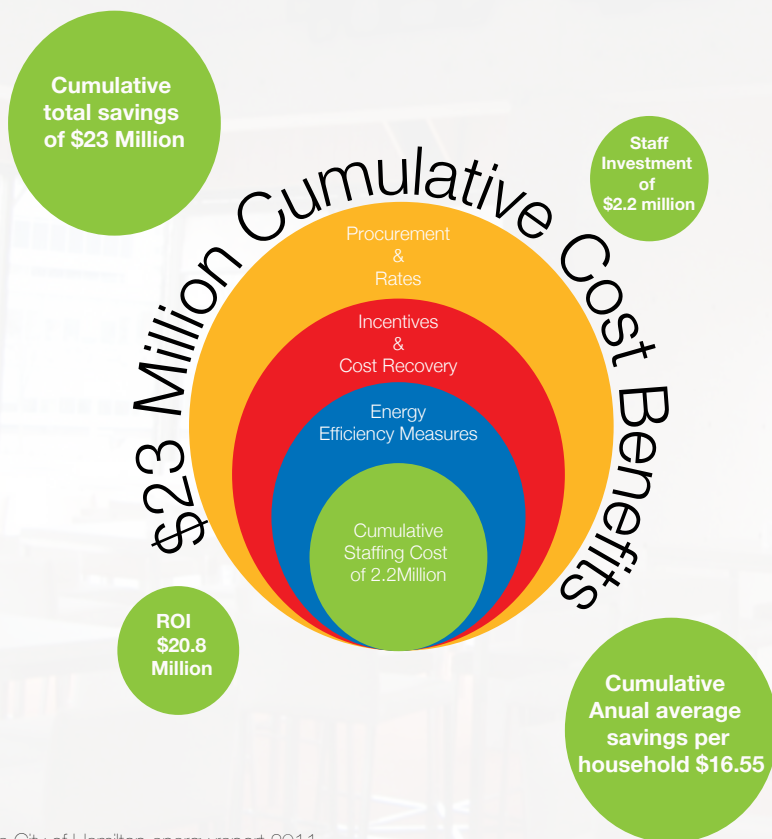
Corporate Energy Policy Target Timeline



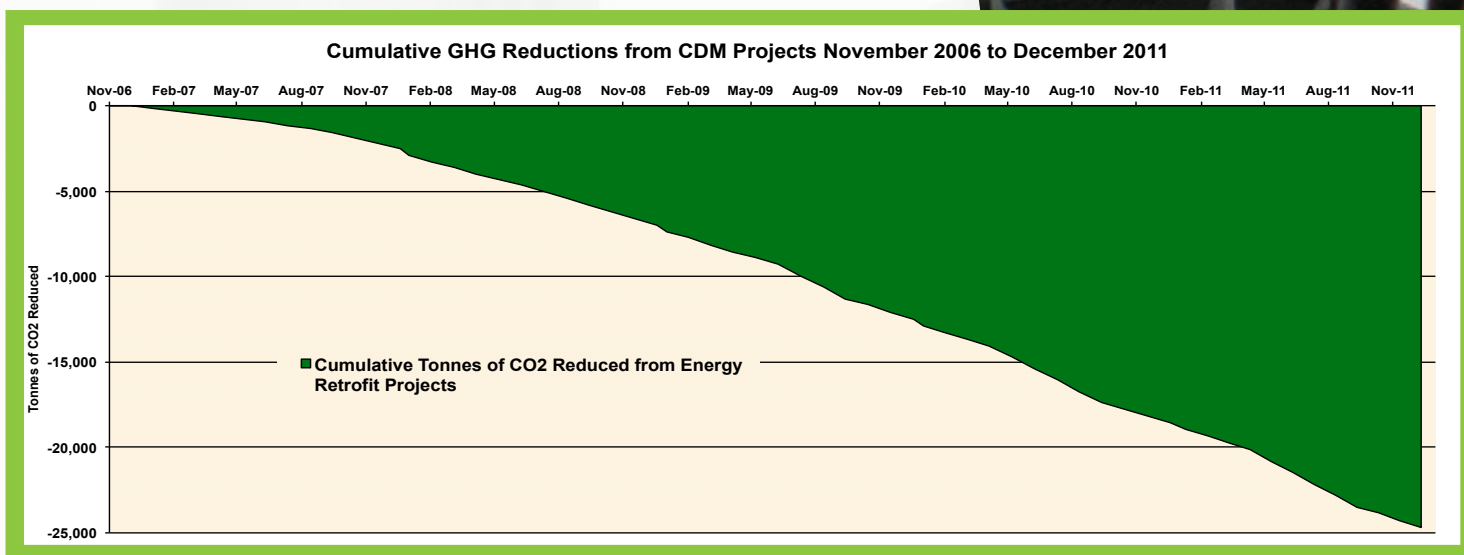
The remaining portion of our energy intensity target will become more challenging to achieve than the first portion. Diligent efforts, staff focus, and council support will be required for further success. As stated in the 2010 Energy Report, a number of initiatives were to be implemented in 2011, such as:

- Lighting retrofit projects of City libraries, including the Central Library;
- High lift pump station retrofit project;
- Downtown district cooling loop projects;
- Lighting retrofit and control projects at arenas, fire stations, 330 Wentworth, Copp's Coliseum and the Convention Centre;
- Water efficiency project at Macassa Lodge

As a result of these projects and associated energy savings, a total of \$2.8 million in incentives was secured from Horizon Utilities in 2011. This brings the total cumulative savings to \$23 million from 2006 to year end 2011. These savings represent combined efforts from three main categories; utility rate optimization and cost avoidance, cash back, and energy conservation projects that also include incentives. The total staffing cost to secure these cumulative savings was \$2.2 million, from 2005 to year end 2011.



The cumulative Green House Gas (GHG) emission reductions from all Energy Conservation and Demand Management (CDM) projects that were implemented now totals 24,685 Tonnes of equivalent carbon-dioxide (eCO₂), which is the same as removing 4,648 cars off the road. The GHG emission reductions from energy projects implemented at year end 2011 were not factored in this calculation.



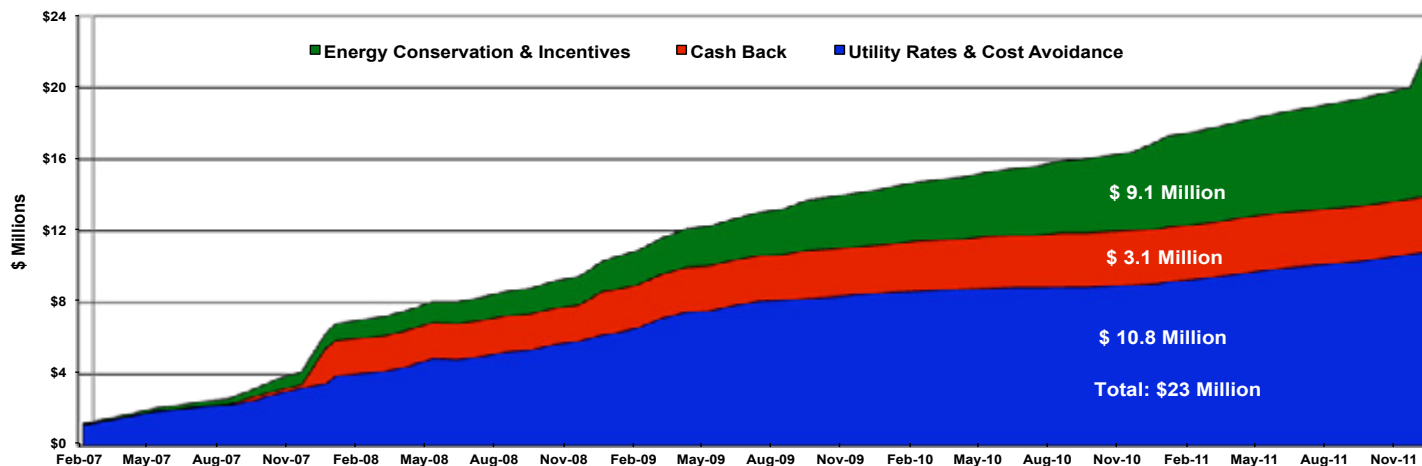
Utility Rates and Cost Avoidance:

The main driver under this category in 2011 was the Global Adjustment calculation for the Woodward site electricity bill. By changing the rate to “Class A”, this site was able to avoid \$1 million in electricity costs that would otherwise be included on the Global Adjustment line item of the electricity bill. Other cumulative avoided costs include natural gas hedging and past electricity savings which currently totals \$9.8 million, combined with the Global Adjustment benefits brings this sub category to \$10.8 million.

Cash Back:

Cash back from recovered costs through billing and metering errors and adjustments have a cumulative total of \$3.1 million. Tracking bills and performing adjustments through monitoring will yield further positive results.

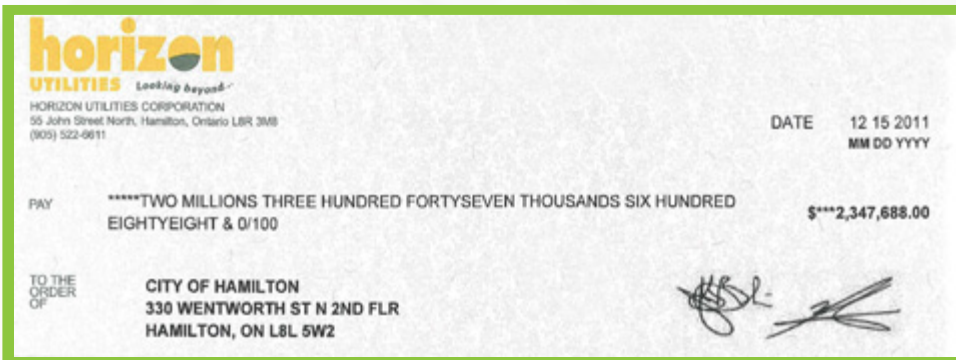

Gross Cumulative Energy Savings/Avoided Costs November 2006 to December 2011



Energy Conservation & Incentives:

The Energy Conservation category tracks energy reduction and incentives from energy related projects which now totals \$9.1 million. The largest energy cost reduction impact in 2011 was an award winning Water & Waste Water High Lift Pumping Station project that yielded an incentive cheque of \$2.3 million from Horizon Utilities. This project alone will reduce energy cost by \$400,000 per year.

The total cumulative operational savings for all projects under this category is now \$5 million. Operational savings from the Woodward Pumping Station and other energy projects that were completed at year end 2011 were not factored in the operational savings calculation, but will be fully reflected in 2012. Incentives from these energy projects in 2011 were included under this category. The cumulative incentives to date are now \$4 million, that includes \$2.8 million received in 2011 alone.



horizon
UTILITIES *Looking beyond.*

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DATE 12 15 2011
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PAY *****TWO MILLIONS THREE HUNDRED FORTYSEVEN THOUSANDS SIX HUNDRED EIGHTYEIGHT & 0/100 *****\$2,347,688.00

TO THE ORDER OF
CITY OF HAMILTON
330 WENTWORTH ST N 2ND FLR
HAMILTON, ON L8L 5W2

[Handwritten signatures]

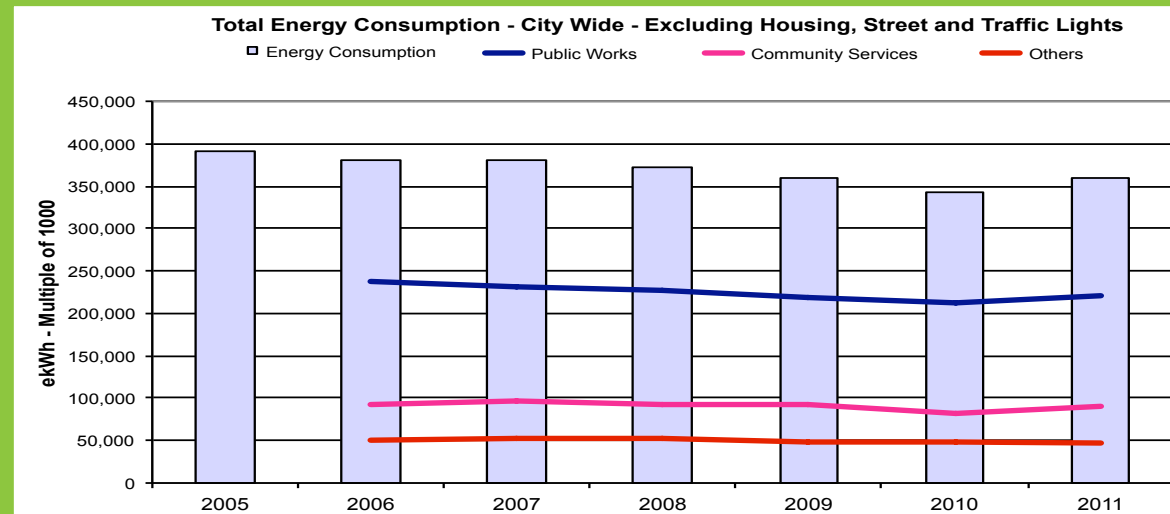
“Overall reduction in both
energy consumption and
energy cost”

The City's corporate energy use and cost represents different business units within the City excluding housing, traffic and street lighting. These business units are Public Works, Community Services, and Other city departments such as Fire, Emergency Services, Libraries, and Police.

Utility Consumption	2005	2011	2011 Vs 2005
Electricity (kWhs)	239,307,767	225,773,256	-6%
Natural Gas (m3)	14,279,068	12,714,763	-11%
Total Energy (ekWhs)	391,665,423	358,896,824	-8%

The City has reduced its:

- Electrical consumption (kWh) by 6% vs 2005 baseline;
- Natural Gas consumption (m3) by 11% vs 2005 baseline;
- Combined energy consumption (ekWh) by 8% vs 2005 baseline.

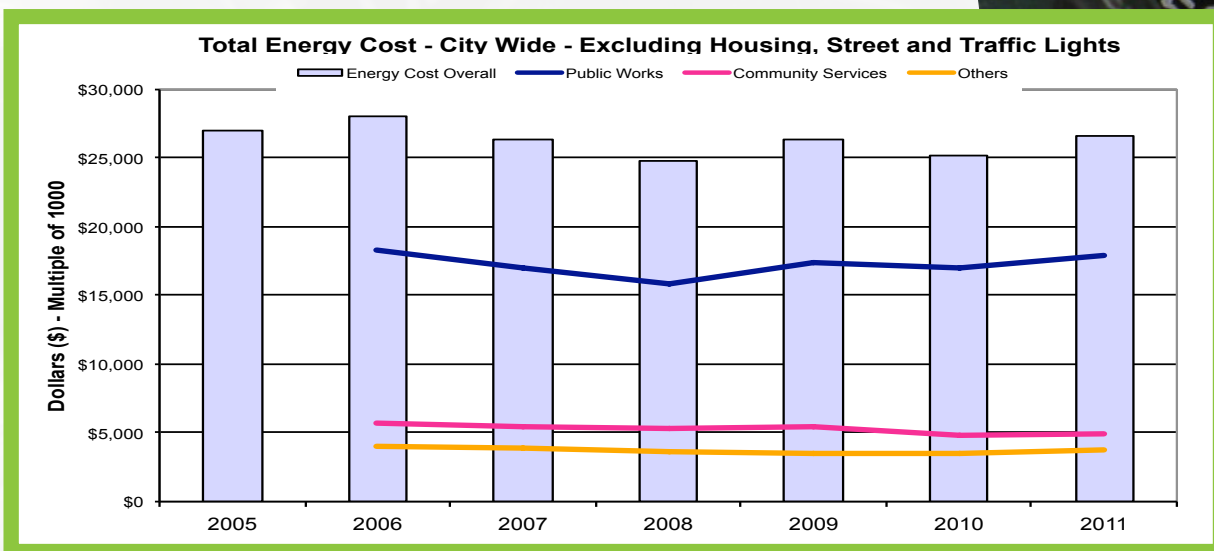


A comparative year over year representation of energy consumption (ekWh) for each business unit and the City overall can be seen in graphics above:

The cost factor varies by each commodity and is influenced by different market variables. The City's electricity cost has increased by 4% vs 2005 baseline. However, the City has reduced its:

- Natural gas cost by 22% vs 2005 baseline.
- Combined energy cost by 1.5% overall vs 2005 baseline.

Utility Cost	2005	2011	2011 Vs 2005
Electricity Cost	\$ 20,939,573	\$21,863,040	4%
Natural Gas Cost	\$ 6,088,265	\$4,760,687	-22%
Total Energy Cost	\$ 27,027,838	\$ 26,623,727	-1.5%



A comparative year over year representation of energy consumption (ekWh) for each business unit and the City overall can be seen in graphics above:

“Reduction in energy intensity of 14% and reduction in cost per square foot of 17%”



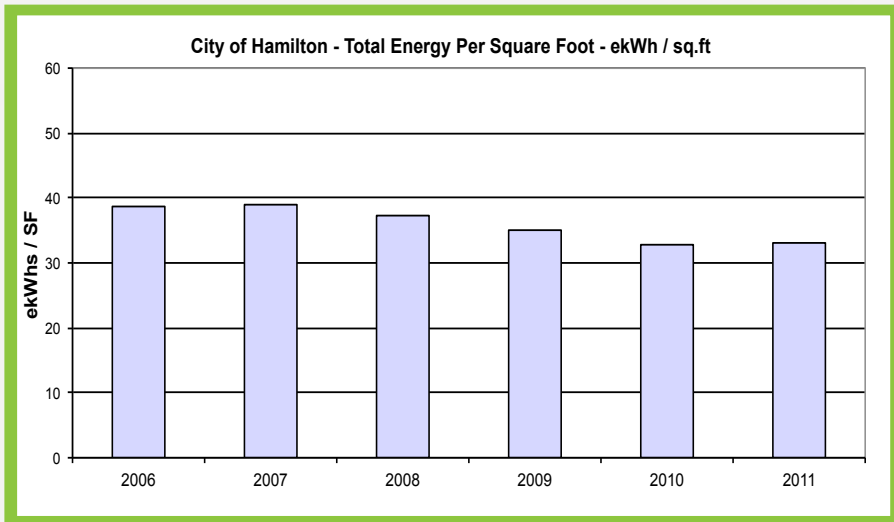
The City of Hamilton's key performance indicator (KPI) is overall energy intensity per square foot (ekWh/Sq.ft) vs targeted reduction set out in the Corporate Energy Policy. Energy calculations do not take into consideration energy use from water & wastewater, operation & maintenance, street lighting and traffic operations.

The City has reduced its:

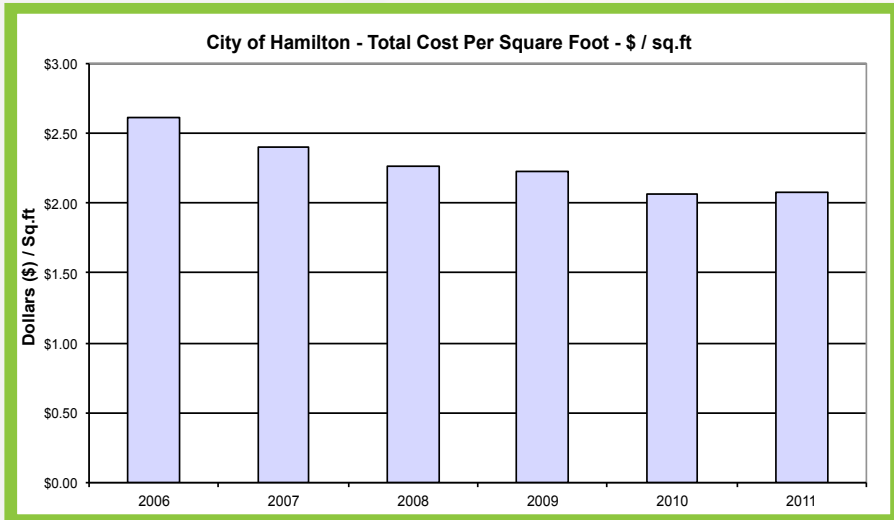
- Electrical consumption per square foot (kWh/Sq.ft) by 9% vs 2005 baseline;
- Natural Gas consumption per square foot (m3/Sq.ft) by 25% vs 2005 baseline;
- Combined energy intensity per square foot (ekWh/Sq.ft) by 14% overall vs 2005 baseline.

Utility (Usage/ft2)	2005	2011	2011 Vs 2005
Electricity (kWh/Sq.ft)	16.47	14.99	-9%
Natural Gas (m3/Sq.ft)	2.33	1.74	-25%
Total Energy (ekWh/Sq.ft)	38.71	33.16	-14%





A comparative year over year representation of city's energy intensity overall can be seen in graphics above:



A comparative year over year representation of city's cost overall can be seen in graphics above:

In-addition, the City also tracks cost per square foot to translate reduction from energy intensity into dollars saved.

The City has reduced it's:

- Electricity cost per square foot (sq.ft) by 7% vs 2005 baseline;
- Natural Gas cost per square foot (Sq.ft) by 32% vs 2005 baseline;
- Combined electricity and natural gas cost per square foot (Sq.ft) by 17% overall vs 2005 baseline.

Utility (\$/Sq.ft)	2005	2011	2011 Vs 2005
Electricity	\$ 1.52	\$ 1.41	-7%
Natural Gas	\$ 0.98	\$ 0.67	-32%
Total (\$/Sq.ft)	\$ 2.50	\$ 2.08	-17%



“Total incentives of
\$2.8 million were
secured in 2011
alone”

WOODWARD HIGH LIFT PUMPING STATION

Background

The pumps, motors and switchgear at Hamilton's Woodward Avenue High Lift Pumping Station were reaching the end of their life and needed to be replaced.

The load required to move the water is more than 10,000 horsepower with various sized pumps fed by two different voltages. The variation in pump sizes resulted in more costly maintenance and high energy costs. The project involved replacing the station's old equipment with state-of-the-art technologies and taking advantage of the financial incentives available through Horizon Utilities, installation of energy-efficient equipment and operational improvement procedures.

Upon completion, the High Lift Pumping Station located at the Woodward site was granted Project of the Year in 2011. This significant award was provided by the industry leading Pumping & Systems Magazine. The award recognizes the unique process and the highly successful design that incorporates new pumps, use of Variable Frequency Drives and operational changes.

Results:

This project saves \$400,000 annually on electricity costs and received an incentive of \$2.3 million due to the electrical demand savings while providing standardized pumps sizes and standardized electrical voltage to all pumps. The control display that operators will view has a cost component so it is evident what the costs are to be expected when operating pumps. In the past operators had no visibility to cost information when operating the pumping station.



BIOGAS PURIFICATION SYSTEM

Background

In 2007, the City's Woodward Wastewater Treatment plant (WWTP) implemented a 1.6MW co-generation facility fueled entirely by methane sourced from the anaerobic digestion of sewage sludge treated at the plant. The project was recognized with an innovation award by the Canadian Council of Ministers of the Environment in 2008.

In addition to maintaining this current 1.6MW capacity, the Water & Wastewater Division is enhancing the sludge treatment process and expand the City's ability to produce and utilize renewable energy as sludge volumes grow over the next 20 years.

Currently, the WWTP produces about 10,400 m³/day of methane. Prior to the implementation of the first stage of cogeneration introduced in 2007, the methane was 'flared' and simply burned off to the atmosphere.

With the benefits realized through cogeneration and the potential for renewable energy growth, a focus was placed on seeking further opportunities for development of these resources at the plant. In order to realize these opportunities, upgrades of the existing anaerobic digestion facilities and additional process infrastructure was required.

Results:

The sludge preconditioning facilities and additional digestion capacity as proposed will enable the WWTP to produce a 50% greater volume of methane from the existing sludge stream.



As these preconditioning and upgraded processes come on-line, and as treated sludge volumes increase with growth, the additional methane available from improved efficiencies will support additional renewable energy capacity.

Methane is directed to a fuel purifier and provides a refined supply of natural gas to offset the use in City fleet vehicles or sold in the market place. Essentially the City is a producer of natural gas as a result of this purification process.



President of Union Gas, Julie Dill and Union Gas staff tour BioGas facility with Gerry Davis, General Manager, Public Works and City staff

DISTRICT COOLING LOOP PROJECT

Background

In 2008 the City of Hamilton was faced with the cost of replacing 14 aging Chillers and related cooling systems in the downtown core. The City was faced with a new regulation to remove old cooling systems of environmentally harmful refrigerant

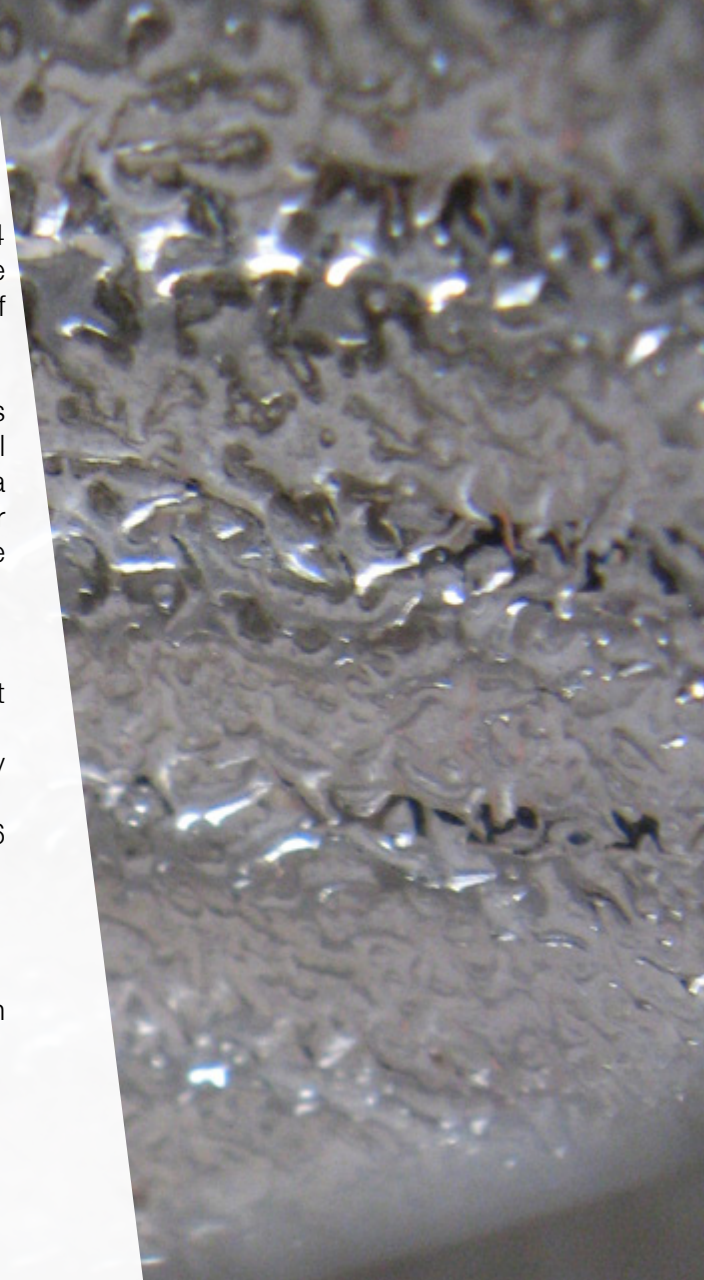
As a part of the new Corporate Energy Policy the Office of Energy Initiatives looked at this challenge to improve the cost, energy and environmental efficiency of this major capital replacement project. It was decided that a district cooling system would be the best solution, reducing the number of chillers from 14 down to 11 while meeting all legislative and safety code requirements, provide added redundancy and greater energy efficiency.

Results:

Detailed engineering and feasibility studies concluded that the District Cooling System offers benefits to the City, which includes:

- greater energy efficiency by reducing the chiller/ cooling system energy use;
- reducing environmental or green house gas (GHG) emissions by 556 metric tons of CO2 annually;
- energy cost savings;
- best life cycle cost benefit over the 30-year life of the equipment.

To date the City has received over \$600,000.00 of incentives from Horizon Utilities Inc. for this project



LIGHTING & CONTROLS UPGRADE PROJECT

Background

Installation of energy saving lighting fixtures and associated controls will result in permanent reduction in energy use while improving the visual lighting.

Number of Buildings Retrofitted:

Arenas: 11
Libraries: 15 + Central Library
Fire Stations: 30 + Fire Admin Building

Arena – Lighting & Control

Working closely with the Recreation Division, this project improved the arena lighting and reduced the energy consumption. Eleven arenas were upgraded to more efficient lighting systems with the intention of standardizing the light levels across city arenas. Additional efficiencies, occupancy sensors and improved Tri-Level Control of Ice Surface Lighting switching was installed.

Libraries – Lighting & Control

Working closely with Library staff and Facilities Division led to upgraded lighting in 15 Libraries in addition to the Central Library. Daylight harvesting was implemented where applicable as well as the installation of occupancy control sensors.

Fire Stations – Lighting & Control

Thirty fire stations and the administration building's lighting were upgraded. Also a heating system door interlock control system was installed to ensure that heating will be turned off after a specified delay, should the overhead doors remain open.



ENERGY SAVINGS AND
AVOIDED COST
BENEFITS

“\$19.4 million in cumulative
levy (tax base) benefits”



Savings outlined in this report are further divided into levy and rate categories along with avoided cost and direct savings. The levy benefit is reflected in the tax base, while the rate benefits are solely attributed to the water base rate savings. The combined rate and levy benefit is termed as corporate total or corporate benefits.

Avoided costs are a measured reduction in energy consumption and a reduction in rates. This is the cost that would have been paid had there been no action or project taken. Direct savings refer to incentives and billing recoveries that impact levy and rate. The combined total of avoided cost and direct savings is total cost reduction and savings.

\$ Savings / Avoided Costs	Levy Benefits (Tax Base)	Rate Benefits (Water Rates)	Corporate Total (s)
Avoided Costs:	\$14,365,045	\$3,451,766	\$17,816,811
Direct Savings:	\$5,078,180	\$235,375	\$5,313,555
Total Cost Reduction & Savings	\$19,443,225	\$3,687,141	\$23,130,366

These numbers for 2011 can be seen in table above:

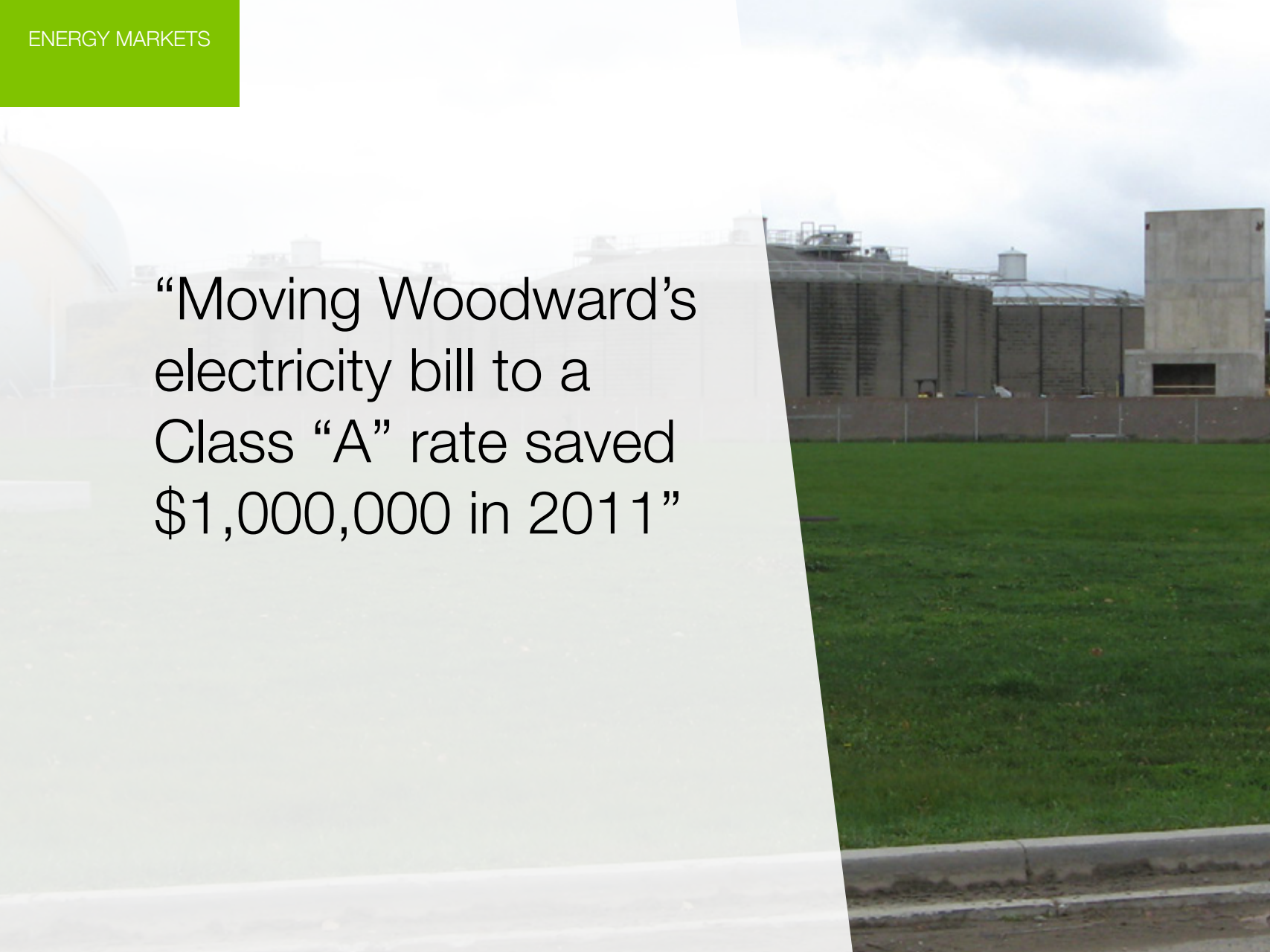
The total cumulative cost reduction and savings for the levy portion by end of 2011 is \$19.4 million with \$6 million of additional avoided cost in 2011 alone vs. 2010.

The rate benefit savings portion for total cumulative cost reduction and savings is \$3.7 million by end of 2011 with an additional \$136,642 of avoided cost in 2011 alone vs. 2010.

The corporate total of avoided costs and direct savings is a cumulative total of \$23.1 million by end of 2011 with \$6.1 million of total avoided cost in 2011 alone vs. 2010.



“Moving Woodward’s electricity bill to a Class “A” rate saved \$1,000,000 in 2011”



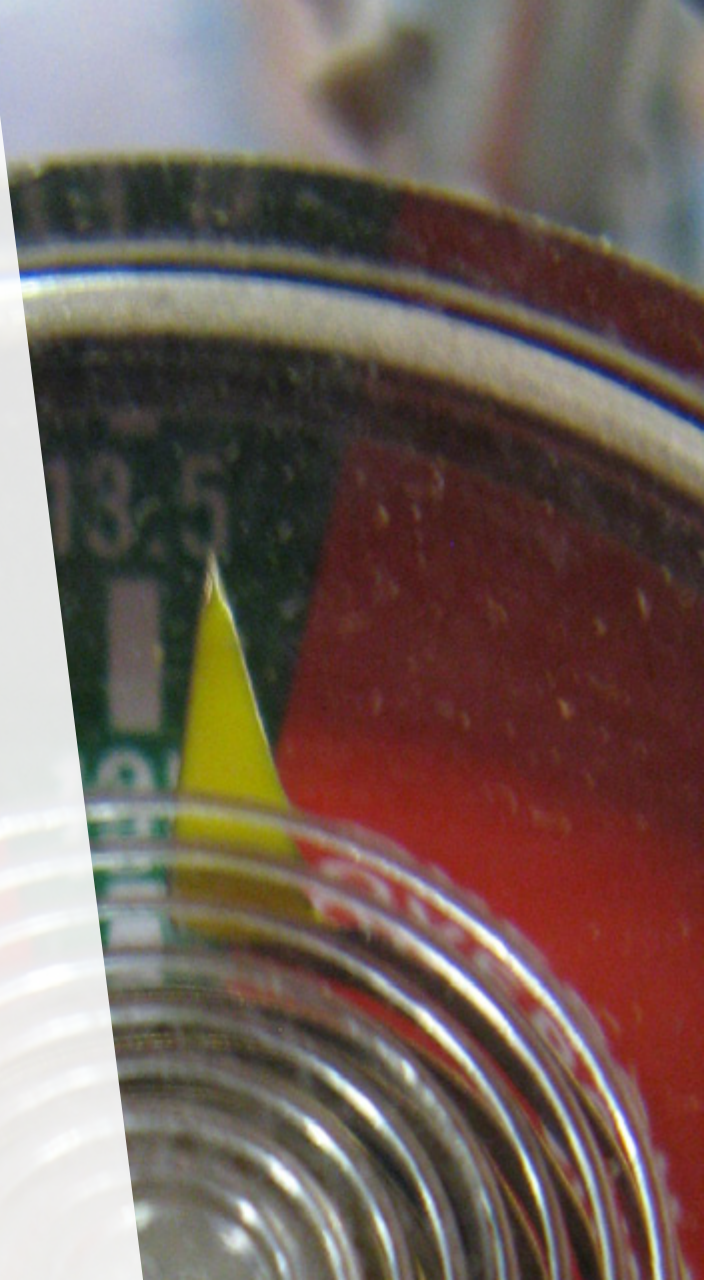
Overview:

Electricity and natural gas markets are volatile commodities. Volatility is constantly driven by changing market conditions such as supply and demand, weather, geo-political events, and the value of the Canadian dollar that impact the final commodity price. There are generally two components associated with the final price of each commodity; variable market price and fixed regulatory cost, these are explained in relevant sections below and are approved by the Ontario Energy Board (OEB). The combined total of this variable cost and regulated cost is an overall delivered price of electricity and natural gas.

The City of Hamilton has implemented several strategies to mitigate this fluctuation in energy cost along with the successful implementation of the Corporate Energy Policy. While it is possible to manage the impact of changing market costs, there are fewer opportunities to alleviate the effects of rising regulated costs, which is particularly evident in the case of electricity.

Electricity

Electricity markets consist of both deregulated (or market based) and regulated based costs. The variable cost is referred to as spot market price or Hourly Ontario Electricity Price (HOEP), while the fixed price includes transmission, distribution charges, as well as the Global Adjustment. The HOEP is mainly impacted by weather and demand factors. The Global Adjustment is a monthly adjustment to customers who purchase their electricity based on spot market. It accounts for the differences between the HOEP and fixed rates paid to provincially regulated and contracted generators.



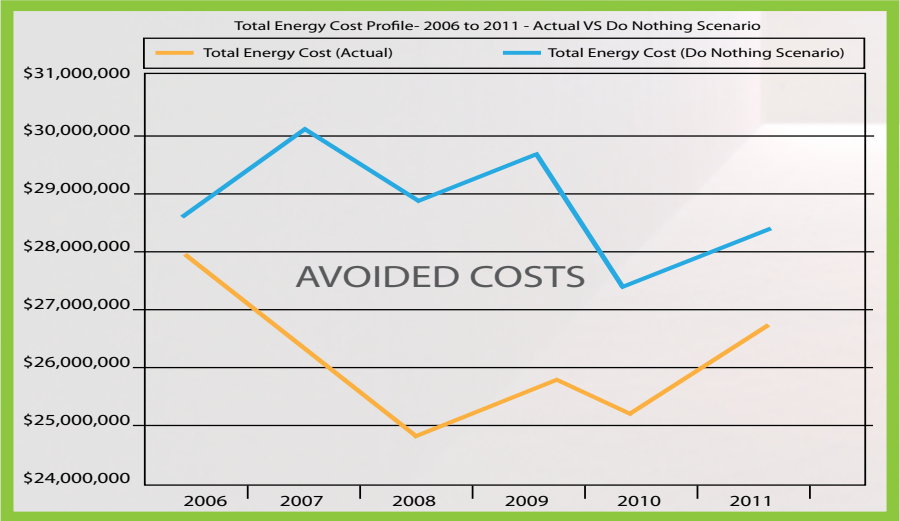
The Global Adjustment fluctuates with the market price for electricity and changes to the mix of generation types. Those generation types include gas-fired, nuclear, and hydroelectric as well as other forms of green power, typically wind and solar PV, from provincial and Feed-In-Tariff contracts. The large majority of the Global Adjustment costs arise from fixed price or revenue guaranteed contracts that the Ontario Power Authority (OPA) has entered into with generators. When the spot price is low, the OPA does not earn enough revenue from power sales to meet the terms of the generator contracts. The OPA then pays the generators their guaranteed rates, and charges consumers for the differences. Other aspects of the Global Adjustment are conservation and demand management programs that are passed on to the consumers.

Prior to 2011, the Global Adjustment cost was allocated to customers based on an overall energy consumed in a month. Starting, January 2011, the Global Adjustment cost was separated into two classes – “Class A” is large users with demands over 5MW, their share of Global Adjustment is based on peak demand. All other customers fall into “Class B” and pay the remaining amount of the aggregated costs not paid by Class A consumers. Under the new allocation methodology, customers in Class A end up paying less in Global Adjustment, particularly if they can manage their peak loads.



The City was able to move the Woodward electricity bill to Class A status, resulting in avoided costs of \$1,000,000 in 2011. Cost avoidance has played an important role in reducing energy costs, and further emphasizes the need to monitor regulatory changes for opportunities.

Currently the OPA's Feed-In-Tariff (FIT) program is also being reviewed by the provincial government and the OPA. The purpose of the review is to address the pricing of future solar PV, wind biomass and other emerging green technologies to ensure balanced pricing and an energy mix in line with provincial goals. It will not change current FIT contracts, but prices offered from the OPA for new contracts are expected to be reduced. In addition, as FIT contracts impact the cost of electricity, the outcomes on the review could result in regulatory changes or for a need to further change the methodology by which the Global Adjustment, or other regulated costs are charged.



Natural Gas

Natural gas markets have been on a decline in recent years. Economic factors from recent years also contributed to lower overall demand. As the recovery has been slower than anticipated, it has led to continued soft market prices. In addition, the advancement in the technologies used to economically extract shale or “unconventional” gas has increased supply to the marketplace, and allowed for favorable purchasing opportunities for consumers. While prices are presently low, there does still remain a risk of increased prices. Many producers have recently announced drilling stoppages as a reaction to the low prices which could shut in gas and shift the balance of supply and demand, thus pushing up prices. The City has continued to utilize purchasing strategies to manage cost and budget expectations and compared to other municipalities that have participated in alternative purchasing arrangements, the outcomes have been positive.

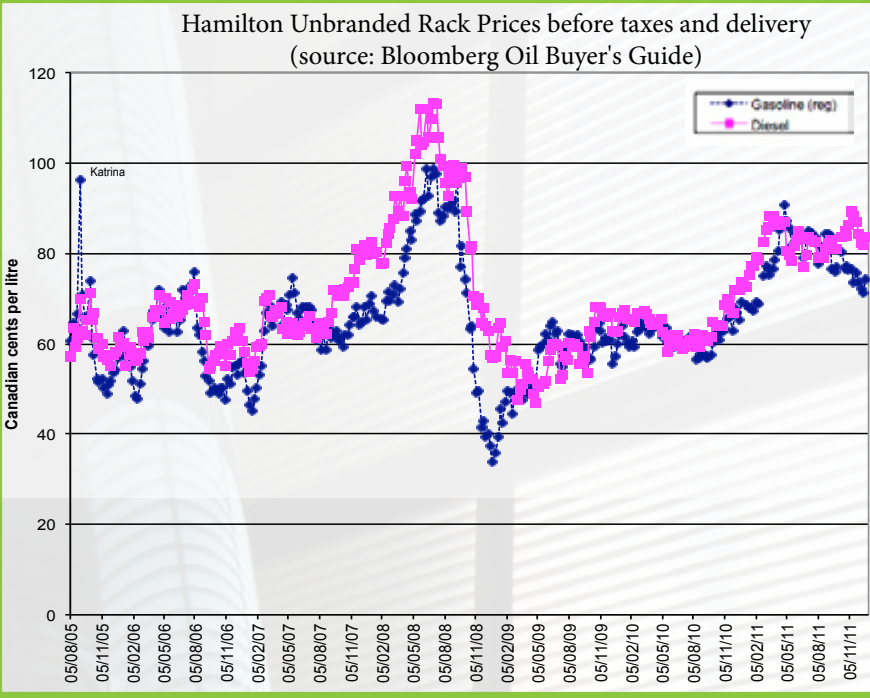
Fuel:

The City uses over 10 million litres of diesel and nearly 1.8 million litres of gasoline annually to power the fleet of service vehicles, such as the HSR buses, waste and snow removal trucks, roads vehicles and parks vehicles. Therefore it is important to manage and monitor those costs for reduction opportunities. The major factors that contribute to the cost of fuel are the cost of crude oil, the cost of refining crude oil and regulated taxes. On an average litre of gasoline and diesel in Ontario, there are 24.7 cents and 8.3 cents of taxes added to the costs respectively, before adding HST cost. While the cost of refining crude oil is relatively constant, the cost of crude oil itself is much more volatile. Crude oil is driven largely by supply and demand on global markets, which takes into account impacts from the economy and social and political unrest. Environmental and weather-related activity can also influence prices as oil reserves and transportation infrastructure can be interrupted causing major, if not temporary, spikes in the cost of fuel.



The City continues to pursue opportunities to alleviate risk and manage costs by reviewing market options for purchasing fuel.

This includes securing fuel from larger and multiple producers, allowing the City to purchase fuel at wholesale prices, thus offering savings over a typical vehicle user. In addition, fuel efficiency and maintenance improvements on vehicles and equipment have been used to manage and control cost spending.



“If you can’t measure it
you can’t manage it”



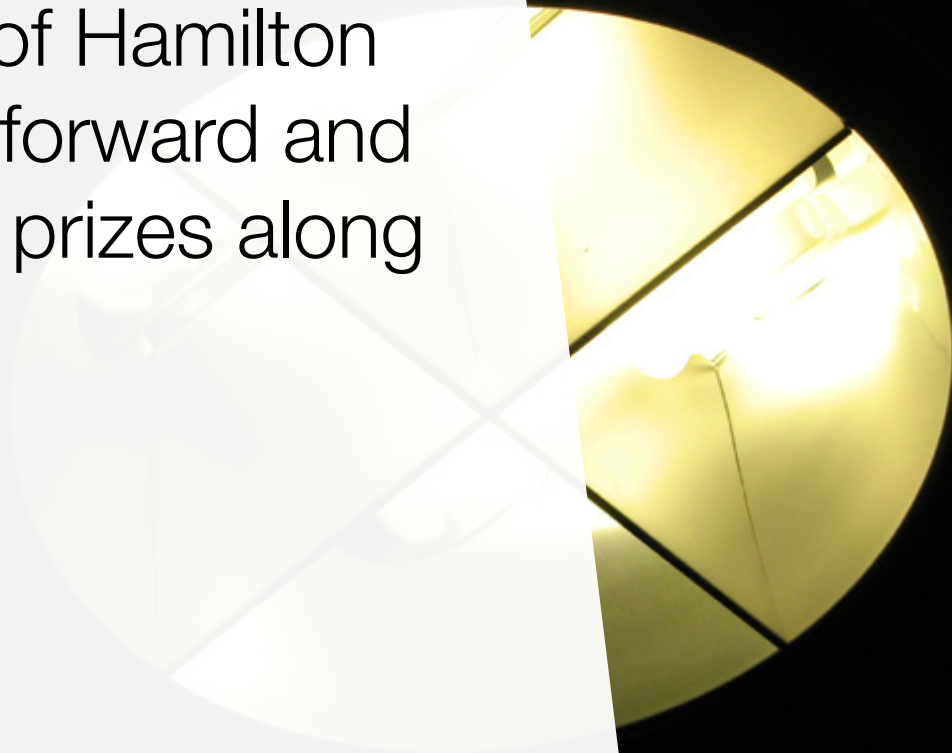
2012

These projects, targeted for 2012 are inline with the goals and objectives of the City of Hamilton's Corporate Energy Policy and Vision Policy 2020.

- **Hamilton Material Recovery Facility Energy Retrofits**
- **Energy Monitoring & Targeting Software**
- **Building Automation Systems Optimization**
- **Mountain Transit Centre Lighting & Lighting Controls Upgrade**
- **Hamilton Convention Centre Ventilation Upgrades**
- **Rooftop Solar photo voltaic system for Wentworth Operations Centre**



“The City of Hamilton
is moving forward and
accepting prizes along
the way”



High Lift Pumping Station

The High Lift Pumping Station located at the Woodward site was granted Project of the Year in 2011. This significant award was provided by the industry leading Pumping & Systems Magazine. The award recognizes the unique process and the highly successful design that incorporates new pumps, use of Variable Frequency Drives and operational changes. This project saves \$400,000 annually on electricity costs, received an incentive of \$2.3 million due to the electrical demand savings, provides consistent design characteristics (demand savings, provides standardized pump sizes and standardized electrical voltage to all pumps). The control display that operators will view has a cost component so it is evident what the costs are to be expected when operating pumps. in the past operators had no visibility to cost information when operating the pumping station.



City Hall - National BOMA TOBY Award

In 2011 staff submitted City Hall designs and operational details to the Building Owners and Managers Association (BOMA) awards committee. The TOBY Award is the most prestigious and comprehensive program of its kind in the commercial real estate industry, recognizing quality in office buildings and awarding excellence in office building management.

The competition consists of three levels of judging. A building must first win at the local level to be eligible to enter the BOMA Canada national awards. Winners of these awards are invited by BOMA Canada to compete nationally.

Winners of these Canadian national awards may be eligible to compete in the BOMA International Awards, to be presented in June during the North American Congress and Office Building show.

City Hall - Town Hall Challenge Award

City Hall's energy data was provided to the Mayor's Megawatt Challenge committee. This effort compared 60 different City Halls and Town Halls across Canada using energy intensity data (energy consumed per square foot). While other sites are not identified, Hamilton City Hall placed 7th out of the 60 buildings based on energy intensity alone. Using 2011 data, City Hall energy consumption is down 60% compared to 2005.





City of Hamilton
Public Works

www.hamilton.ca/energy

UNDERTAKING J4.11

Undertaking of Enbridge Gas Distribution Inc. and Union Gas Limited

Transcript Volume 5, page 125.

To advise, assuming a total bill impact of 1.81 for all distribution customers, approximately how many additional PJs the Companies could produce.

Enbridge response:

For the purpose of this undertaking response, Enbridge assumed that the costs of RNG supplies would be paid for by all customers through their delivery rates and the costs would be allocated volumetrically based on delivery volumes to the customer rate classes. Allocating the costs based on delivery volumes results in all customers paying the same unit rate. Based on the Company's July 1, 2011 QRAM (EB-2011-0129), the incremental costs of RNG purchases is forecast to be approximately \$34.4 million. The impact on system gas and direct purchase residential customers from recovering this cost in their delivery rates would be approximately \$9.00 annually.

If all system gas and direct purchase residential customers were required to pay \$18 annually for RNG purchases, the total volume cap would increase to 169,500 10^3 m^3 and the incremental cost of RNG supply would be approximately \$66.7 million.

Union response:

For the purposes of this undertaking response, Union has assumed that all Rate M1 and Rate 01 customers are sales service customers. Union has assumed no change to sales service volumes in other rate classes.

Based on Union South sales service volumes of 99.8 PJ and an approximate annual bill impact of \$18 for an average residential customer, Union's proposed annual RNG volume cap is 1.7 PJ. Assuming all Rate M1 customers are sales service customers, approximately 0.4 to 0.5 PJ of additional RNG could be purchased.

Based on Union North sales service volumes of 824,123 10^3 m^3 and an approximate annual bill impact of \$18 for an average residential customer, Union's proposed annual RNG volume cap is 0.5 PJ. Assuming all Rate 01 customers are sales service customers, approximately 0.1 to 0.2 PJ of additional RNG could be purchased.