Section 4

Action Plan

Templates

All templates in this guide are available in text and PDF format on the accompanying CD ROM or on the Knowledge Network at http://kn.fcm.ca.

Action Plan Template

[Insert Municipality]

[Insert Date]

1.0 INTRODUCTION AND SUMMARY

[Sample text is provided, where applicable, in the sections that follow.]

1.1 Purpose

This Action Plan provides a strategic direction and presents a strong business case for a project that enables an investment of resources to improve the maintenance, comfort, safety and energy efficiency of [Municipality Name]'s corporately owned buildings. The plan identifies the preliminary goals for such a program and identifies the initial proposed scope. It demonstrates potential financial incentives and other benefits of energy and water conservation in municipal buildings. Implementation and finance options are presented, and a course of action is proposed.

1.2 Background

This Action Plan was undertaken by [municipality x] utilizing the Federation of Canadian Municipalities' Municipal Building Retrofit (MBR) process. The MBR process enables municipal governments to follow a strategic plan that will make the most of opportunities to save money and reduce waste. Drawing on the experience of other municipal governments that have successfully carried out a range of building retrofits, the MBR process consists of eight steps. At each step, there is an opportunity to assess the information available and to decide whether there is a strong case to proceed.

Modernizing municipal buildings decreases expenditures and frees up needed revenue for other critical functions, while conserving energy and water. A recent Green Leaf™ Assessment carried out under the auspices of the FCM process found that for each day [Municipality Name] postpones energy retrofits, $[insert amount] is lost in potential savings that could be used to finance building improvements.

1.3 Activities to date

[Insert signatory's name] completed the first step by signing a Letter of Commitment to the MBR process on [insert date]. From [insert month range], staff completed a Green Leaf™ Phase I questionnaire to assess how well prepared [Municipality Name] is to implement an energy-efficiency program.

[If applicable] The Green Leaf™ Phase 2 Assessment was completed on [insert date] by [insert participants]. A Phase 3 post assessment review meeting was held with [insert names] from FCM and municipal staff including [insert names] on [insert date].

1.4 Summary of relationship of building retrofit to municipal goals and policies

Recent budget cuts have encouraged [Municipality Name] to find ways to reduce operational budgets.

[Municipality Name]'s environmental policy is to increase energy efficiency.

The internal rate of return for energy-efficiency measures is within established objectives for municipal investments.

1.5 Recommended next steps

A program of building improvement is recommended. Such a program would allow for a $[insert amount] investment in our municipal facilities for equipment renewal, training and program implementation. The program would save $[insert amount] in annual operating costs. The program will be entirely self-funding, and all program costs will be retired by operational cost savings within [insert number] years.

The details of such a program need to be confirmed by proceeding to the next step in the MBR process. It is recommended that Council endorse continued participation in retrofitting municipal buildings, and approve $[insert amount] from the [insert department] budget for the creation of a Project Proposal.

2.0 INTERNAL PARTNERSHIPS

An energy-efficiency team has been established to assess municipal energy savings potential: [insert name]. Team members collect and evaluate building and energy data and present options for prioritizing, financing, and implementing retrofits. Each team member plays a specific role as identified in Appendix A.

Internal partnership contact table

Name	Title	Department	Phone	E-mail	Role
	Energy Manager				
	Financial Manager				
	Building Manager				
	Communications				
	Council Member				
	Human Resources				
	Legal				
	Other				

3.0 CURRENT SITUATION

[See Appendix E Project Proposal Development Timeline]

3.1 Building portfolio

[Municipality Name] has [insert number] buildings that cost $[insert amount] in energy as indicated in the following table.

- or -

At this point a detailed building inventory has not been completed. Capital plans indicate that [equipment to be retrofitted/replaced] in [name of building] is scheduled for replacement by [insert date].

3.2 Utility expenditures and challenges

Most departments within [Municipality Name] pay utility bills without verifying costs. The accounting department plans to consolidate the payment system, allowing centralized tracking of bills that would facilitate the tracking of energy expenditures. Table 1 summarizes the current utility costs and the level of carbon dioxide emissions from municipal buildings.

Table 1 Municipal Building Portfolio (Entire Building Stock)

	Annual Costs ($)	% of Cost	Equivalent kWh	% of Energy	CO_2 Emission[1]
Electricity					
Natural Gas					
Oil					
Propane					
Water					
Renewable					
Other					
Total					

[1] Use the coefficients table in the guide to calculate your CO_2 emissions or use the CO_2 calculator found on the accompanying CD.

3.3 Operations expenditures and challenges

Operational expenditures have increased over the past [insert number] years.

3.4 Maintenance expenditures and challenges

Heating equipment in [Insert names of buildings] is old and requires constant maintenance and attention. New equipment would save time and money on maintenance.

4.0 A BUILDING RENEWAL PROGRAM FOR [MUNICIPALITY NAME]

[See Appendix E Project Proposal Development Timeline]

4.1 Expected results

There are several important reasons to implement an energy-efficiency program in [Municipality Name].

In general, energy-efficient retrofits are proven to:

- reduce operating costs such that the savings repay the capital invested
- upgrade or replace old inefficient equipment
- reduce emissions
- increase indoor air quality

As documented in the Green Leaf™ Assessment, [Municipality Name] could expect an energy-efficient retrofit to build on the following strengths and address the following weaknesses in its building management. [Incorporate the findings (strengths and weaknesses) of the Green Leaf™ Assessment]

4.2 Market conditions

Energy prices have increased considerably in recent years, such that total utility costs were $[insert figure] in [most recent year] compared to $[insert figure] in [previous year]. According to many energy analysts, prices will continue to increase over the next decade. Such market conditions will lead to price increases not only in the electricity market but for other goods and services too.

4.3 Financial incentives

The Green Leaf™ Assessment demonstrates that a potential energy savings of $[insert amount] can be realized with a payback of [insert number of years]. Numerous other Canadian municipalities have documented the financial benefits of building retrofits.

4.4 Environmental and health concerns

In addition to purely financial incentives, building retrofits and energy efficiency have many other benefits:

- increased indoor air quality (the U.S. Environmental Protection Agency ranks poor indoor air among the top five environmental risks to public health)
- reduced air pollution from energy generation (if this is a factor in your province)

At the end of the day energy-efficiency programs pay for themselves, save municipal costs, improve air quality, reduce environmental pollution, increase occupant satisfaction, and demonstrate responsible stewardship to the public.

4.5 Proposed activity

This Action Plan lays out a framework for building renewal and leads to the creation of a detailed Project Proposal that spells out how the retrofit program is to proceed. In subsequent steps feasibility studies will confirm the energy savings potential in specific buildings. At the implementation stage there will be upgrades to mechanical, plumbing and electrical systems as well as changes in management and operating practices. These changes will reduce energy costs by approximately $[insert amount from Green Leaf™ Assessment]. The Project Proposal will cost an estimated $[insert figure from Budget in Appendix F] to prepare. Energy cost savings will ultimately pay for all retrofit activities including the Project Proposal.

4.6 Benefits of participating in a building retrofit process

[Municipality Name] has been considering a retrofit for [insert names of buildings] for a few years for reasons of both energy and operating efficiency. The building retrofit process advocated by FCM will provide us with the resources to ensure that we are taking advantage of all our opportunities in a cost-effective manner.

5.0 POLICY CONTEXT

[Outline any municipal energy or environmental policies and how they support a retrofit program. See Appendix E Project Proposal Development Timeline]

6.0 FINANCING AND IMPLEMENTATION

There are several different financing and implementation options. Municipal governments can pay for building improvements and new equipment using:

- internal capital
- debt financing
- lease or lease-purchase arrangements
- financing arranged by an energy services company

Implementation options include:

- municipal staff manage and carry out measures
- contractors carry out measures under staff direction
- an energy services company (ESCO) manages and carries out measures

A comparison of the various financing and implementation options is provided in Table 2 below.

Table 2 Overview of common financing and implementation options

Implementation Option	**OWNER MANAGED**			**ESCO MANAGED**			
	Internal Capital	**Borrow**	**Leasing (1)**	**Internal Capital**	**Borrow**	**Leasing (1)**	**ESCO Financed**
Initial Cash outlay	100%	0-30%	0%	100%	0-30%	0%	0%
Fixed Payments (2)	No	Yes	Yes	No	Yes	Yes	No
Payment Source	Capital	Capital	Operation	Capital	Operation	Operation	
Risk Assumed by	Owner	Owner	Owner	ESCO as Requested			
Ownership of Equipment	Owner	Owner	Owner	Owner	Owner	Owner	ESCO
Tax deduction	Depreciation	Depreciation and interest		Depreciation	Depreciation and interest		Savings
Cost of Capital	Prime	Prime+	Prime ++	Prime	Prime+	Prime ++	Prime +++
Debt on Balance Sheet	NO	YES	YES	NO	YES	YES	NO

(1) Capital lease, rather than operating lease, is assumed. It is unlikely that building retrofits could be considered as a rental-type arrangement.
(2) Under ESCO managed, payments are corrected after each reconciliation.
Source: Financing Options for Energy Management Services. Natural Resources Canada, 1995.

Each broad financing and implementation option identified above has strengths and weaknesses, and there are further variations within each option. A more detailed review is necessary to ensure that the best financing and implementation options are selected for [Municipality Name]. This review will be conducted as part of the Project Proposal.

[Financing options]

[Implementation options]

7.0 RECOMMENDATIONS

[See Appendix E Project Proposal Development Timeline]

7.1 Project Proposal

A program of building improvement is recommended. Such a program would allow for a $[Insert amount] investment in our municipal facilities for equipment renewal, training and program implementation. The program would save $[Insert amount] in annual operating costs. The program will be entirely self-funding, and all program costs will be retired by operational cost savings within [Insert number] years.

It is recommended that Council approve $[insert amount] to develop a Project Proposal for a comprehensive municipal building retrofit.

This expenditure will permit [insert name of department] to produce detailed information that will confirm or allow appropriate revision of the recommended program scope, benefits and estimated savings. With greater detail on buildings, equipment and utility costs, the department will also be able to recommend priority expenditures for energy efficiency.
Renewable energy and technologies have demonstrated economic and environmental benefits across the country. They will be considered throughout this project.

7.2 Recommended financing option (if chosen)

7.3 Recommended implementation option (if chosen)

7.4 Recommended strategy for waste minimization

7.5 Human resource requirements for Project Proposal

7.6 Timeline for submission of Project Proposal report (refer to Timeline in Appendix E)

7.7 Budget and source of funds for Project Proposal (refer to Budget in Appendix F)

Sample timeline

Item	Description	Tasks	Lead	Due Date	Resources
Building Inventory	Compile a list of municipal facilities	• Request staff to compile inventory OR • Hire consultant to compile inventory	Building manager	June 5	2 person-days (example)
External Partners	Sources of expertise not available in-house	• Identify skill sets needed • Identify external partners	Energy manager	June 30	
Implementation	Identify implementation options	• Review implementation options • Select preferred option	Building manager & Financial Manager	July 10	
Financing		• Review financing options • Select preferred option	Financial Manager & Building Manager	July 10	

Appendix F Sample Budget

This is a sample. Please use your municipality's standard budgeting method.

It should be emphasized to decision-makers that all costs incurred at this stage will be recovered from future energy savings from the retrofit project.

	Internal Time	External Cost	Total Expenditures
Research			
Building Inventory			
Collect & Analyze Utility Bill Data			
Capital and Operating Cost Review			
Finance & Implementation Options			
Research Sub Total		**$ -**	**$ -**
Project Proposal Report			
Writing, Editing, Printing			
Consultants' Fees			
Report Sub Total		**$ -**	**$ -**
Training			
Workshops			
Other Training Opportunities			
Training Sub Total		**$ -**	**$ -**
Feasibility Study			
Internal or External Auditing			
Consultants' Fees			
Feasibility Study Sub Total		**$ -**	**$ -**
Total		**$ -**	**$ -**

Note: This budget describes the cost associated with preparing the Project Proposal and conducting Feasibility Studies