

## **Introduction**

Canada's recent economic downturn, coupled with the simultaneous collapse of the credit-lending markets and the significant slowdown in housing, has had far-reaching impacts across Canada, and it has not spared the municipal sector. Municipalities across Canada are feeling the pinch, as revenues begin to decrease, and demands on public services increase.

As municipal governments begin to tighten their belts, municipally run environmental (or green) initiatives ranging from rebates to homeowners to programs promoting green roofs are under threat. While some programs will inevitably end up being curtailed or cut entirely, it is important for municipal leaders to ensure that they do not lose sight of the fact that while these programs have up front costs, many of these programs will have positive impacts on tax revenues and/or reducing municipal costs.

While the pressure will remain to curtail spending and reduce overall programming, municipal leaders also have an opportunity to ensure that upcoming job-creation infrastructure planning and spending are undertaken in long-term, sustainable manner. A recent report from the Federation of Canadian Municipalities has demonstrated how accelerating infrastructure spending can have beneficial effects on the local economy (e.g. construction jobs, generating additional tax revenues). With the federal government's commitment in Budget 2009 to expand infrastructure spending to \$12 billion, there is a golden opportunity for municipal planners to implement new sustainable transportation funding, ensure that large construction projects integrate energy efficiency designs, and promote clean energy projects.

## **Green Initiatives**

Municipal green initiatives tend to be programs (such as support for green roofs, toilet rebates, etc.) or infrastructure-based (sustainable transportation links, brownfield redevelopment, etc.). What follows is a non-exhaustive sketch of some of the more successful programs and initiatives that provide long-term benefits yet may be in danger of being cut or reduced.

### *Community Energy developments*

Reducing direct energy costs is a worthwhile initiative in any community. At a broad level, it promotes conservation habits, and in general provides a sense of community and partnership. Whatever their size, whether they be solar panel installations, run-of-river hydrological power development, or district heating processes, can be appropriate developments. These projects are sometimes undertaken by the municipality, sometimes in partnership with community groups and businesses, and sometimes solely by external stakeholders. The involvement of external partners means that the costs and risks of the project are borne not solely by the municipality, but also by project partners. For example, the community of Dawson Creek has been working with environmental NGO the Pembina Institute to develop a comprehensive community energy program. Beginning with an energy baseline report of municipal operations allowed decision-

makers and managers to describe and challenge in-built assumptions, assess different strategies, and get “quick-win” decisions accomplished.

While not every clean energy project is going to make sense from an economic, social and political perspective, the key is to ensure that projects are not rejected out of hand, or cancelled partway through.

#### *Brownfield remediation*

Municipal brownfield remediation is an effective process of remediating, rehabilitating, and redeveloping abandoned or under-utilized urban landscapes. Qualitative benefits include revitalizing older communities and forgotten neighbourhoods, removal of abandoned buildings and help prevent urban sprawl in some cases through infill processes. For local municipalities concerned about revenues, brownfield redevelopment tends to bring new tax revenues online, increases local property values, and promotes new businesses. Examples abound of successful brownfield remediation, including St. Albert, Alberta’s Riel Park and Voisey’s Bay, Newfoundland

#### *Climate Change*

One of the most prominent national municipal climate change programs is the Partners for Climate Protection program (the Canadian component of ICLEI’s Cities for Climate Change Program), run in partnership with the Federation of Canadian Municipalities. Experts believe that municipalities and their programs have the potential to directly affect half of all Canadian greenhouse gas emissions (specifically through infrastructure, urban planning and sustainable transportation decisions). Member cities in the PCP program run the gamut from townships to the largest municipalities in Canada.

#### *Sustainable Transportation*

Programs developing, maintaining and promoting sustainable transportation are long-term in nature, with results usually being seen after more than one electoral cycle. It is therefore challenging to know that funds are being spent with the long-term benefits not appearing for years to come. While these types of commitments will rely on the long-term application of political statements, projects such as Toronto’s Transit City and Vancouver’s Evergreen Transit Line are being developed to increase public transportation coverage, decrease congestion, and prevent harmful air emissions.

#### *Energy Conservation*

Public spending on energy is a significant cost for municipalities, ranging from street lighting to powering municipal infrastructure. Coming on the heels of the Ontario Power Authority’s recommendation for municipalities to designate municipal energy conservation officers to champion energy conservation measures, demonstrating leadership on this file has an additional public benefit by “walking the walk” while encouraging citizens reduce their personal energy consumption and costs. Successful programs such as Penetanguishene, Ontario’s award-winning LED streetlight installation program is projected to reduce electricity consumption by up to 62% compared to the previous mercury-vapour streetlights, as well as reduce ongoing maintenance costs.

### *Waste diversion*

Waste disposal is an expensive business. Collection, transport and disposal are all costs that are difficult to manage, and municipal waste managers find difficult to cost manage effectively. To confront these increasing costs some cities have implemented aggressive waste diversion programs with the aim of removing as much as possible from the waste stream that goes to landfill. Programs such as these are also expensive to design, implement and run. The question is moreso which makes economic, community and environmental sense over the long-term.

### *Water and wastewater*

Municipal wastewater effluents, including treated and untreated wastewater; sewer overflow; and surface water runoff, can have significant effects on local economies and ecological systems. For example, nutrient enrichment in the Great Lakes has led to sport fish population declines, deteriorating water quality, and visible nuisance effects on shorelines. Deteriorated water quality has significant impacts on human health –including the economic costs of treatment – as well as losses in tourism income and closure of commercial fisheries. Ensuring that local water consumption is minimized, that demands on treatment plants are reduced and other significant infrastructure costs (including maintenance) are avoided through reducing demands on water and wastewater systems will have long-term benefits to implementing municipalities.

### *Green roofs*

Green roof technology, while still making its way in Canada, is a common urban and rural roofing technique in Europe. While building managers find green roofs to be beneficial due to their insulation and reduced maintenance benefits, municipalities have developed green roof promotion programs to support aging sewer and wastewater infrastructure. Research has demonstrated that green roofs are able to retain 60-100% of received stormwater. Water that is not absorbed is only released slowly over a period of several hours. Providing incentives and knowledge points for building managers and members of the construction industry are low cost, long-term beneficial initiatives.

## **Economics**

Within the current economic downturn, with revenues decreasing and expenses increasing, it is quite important for municipalities to determine whether or not green initiatives are economical. The real challenge is to make sure that decisions are made taking into account both short-term pressures due to the current economic landscape, while still ensuring that municipalities are well-protected and are not making decisions that will have grave impacts in the long-term.

As part of that decision-making process, municipalities need to leverage the partnerships, external relationships, and any non-traditional sources of funding that can ensure that green programs and initiatives are maintained, and even on occasion expanded, rather than cut or curtailed.

### *External Funding Sources*

The federal government has several programs that are available to municipalities to design, promote, or implement green programs. While outside of the scope of this article to detail them all, there are a few that can help municipalities share the costs of green programs and infrastructure, they include:

Transport Canada's ecoMOBILITY program, which seeks to cut urban passenger transportation emissions by helping Canadians choose public transit or other sustainable transportation options.

The Canada-Ontario Municipal Infrastructure Fund is another example of a fund that has been used in the past to develop and improve municipal infrastructure with environmental benefits (including both upgrading wastewater treatment plants and waste diversion facilities). A five-year, \$900 million initiative, green infrastructure is its top priority, with 55 percent of funding earmarked for water quality, sustainable communities, and climate change and innovation projects.

The Federation of Canadian Municipalities' Green Municipal Fund supports initiatives that are designed to support the environment, local economies and quality of life. This fund provides grants and below-market loans, as well as providing education and training resources to municipalities.

Other potential sources of funding that municipal decision-makers should be looking at include charitable foundations. With a legal obligation to spend 3.5% of assets per annum, even during this economic downturn most foundations will be looking for programs and partners to work with.

### **Future Efforts**

As municipal councils continue to trim their budgets and staff begin to squeeze every penny, it will take a fair amount of creativity, partnership and communication for municipalities to maintain environmental projects during this economic downturn. What this article has attempted to demonstrate is that even during this time of uncertainty, green projects have the potential to save municipalities money by reducing their costs, and/or they have the potential to help generate new and future revenue streams. Knee-jerk reactions looking to cut programs without taking into consideration their long-term impacts will only ensure that decisions taking during this recession will have much longer-term impacts. What is certain is that there is a generational opportunity for municipal decision makers from the politicians to the urban planners to invest in green and sustainable infrastructure and design and plan the future growth of their municipalities to anticipate for a potentially more carbon-constrained future.