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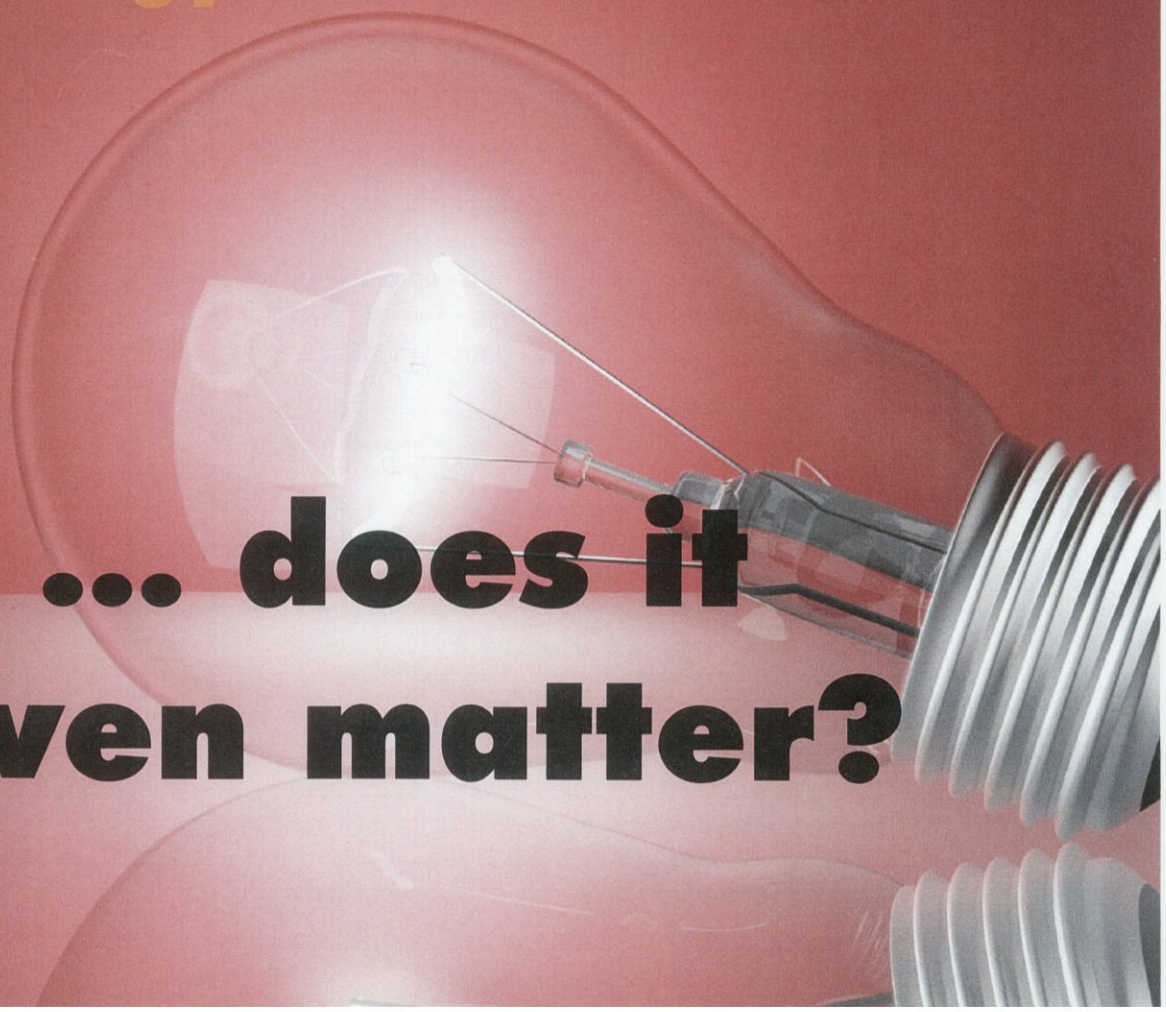
## IPSOS REID / MUNICIPAL WORLD SURVEY

# Municipal governments get failing grades on energy conservation



# ... does it even matter?

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# MENTORING BUILDINGS

## The soft path to sustainability

*Ted Wilson*

Canadian municipalities are playing a major role in demonstrating ways to address climate change. With aging facilities, increased responsibility for maintaining infrastructure, and diminishing opportunities for generating revenue, municipalities are turning to sustainable solutions to renew their built resources and educate their communities.

A key strategy involves commitment to the *soft path*, blending the efficient use of resources with renewable energy technologies. Pioneered by Amory Lovins, the soft path approach looks to manage demand for energy first, and then introduces sources of renewable energy to meet the reduced building needs. The practical benefits include the ability to maintain the same square footages with reduced operating budgets. Local knowledge and skill levels are also rising as experience in combining conservation measures with renewable energy technologies grows. And, of course, the use of less fuel from conventional sources is reducing greenhouse gas emissions.

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For municipalities, their extensive stock of facilities represents a huge opportunity to demonstrate the role public buildings can play as mentors in illustrating this sustainable design concept and its application throughout their communities.

But first some background on why Canadians have risen to the challenge, what is happening in 2008, and what is unfolding ahead.

### Recent Events Prompt Action

Consider Ontario, where a consensus on the need for action on climate change is building at the municipal level. Recent regional events appear to have prompted this development.

The Ice Storm of 1998 destroyed thousands of trees and left hundreds of communities without heat and power, in some cases for weeks. Neighbours volunteered firewood, generators, food, and water. Ad hoc disaster relief centres were set up. Residents were advised to be prepared to wait for assistance for up to 72 hours. The need for local emergency preparedness plans became immediately apparent. Communities woke up to the need to be more self-reliant in their own backyards.

The Walkerton Water Crisis in 2000 shook confidence in water supply and treatment infrastructure and standards. Government inquiries, regulation overhauls and system retrofits followed.

In 2003, a massive power failure shut down distribution grids across the north eastern US and Canada. Demand had exceeded infrastructure capacity. Again, hundreds of communities were left without power for several days. A pending Ontario initiative to deregulate power supply was cancelled. It was now apparent to elected officials that aging infrastructure was increasingly becoming a liability. Residents were more frequently being put at risk and costs for repairs and ongoing insurance coverage were escalating. Officials became determined to renew confidence in their constituencies as places to live, work and invest.

Communities are now focusing infrastructure renewal projects on ways to increase energy and environmental performance. As an example, in the order of 40 percent of the operating costs shouldered by communities in Ontario is directly related to maintaining water and sewage treatment

systems. Projects are being developed to reduce these ongoing operating costs and the burden of such systems on the environment and community. Residential resource conservation programs are also being introduced. Low flow toilets, compact fluorescents, waste diversion, and recycling programs are taking hold.

### Mentoring Buildings – An Emerging Strategy

One of the most visible emerging strategies is Mentor Buildings. These sustainable design learning centres are found in high profile locations in communities. Open to the public, they provide opportunities for hands-on education about green building and site technologies that can be translated into residents' backyards.

An example is the Northumberland County headquarters, opened in 2007. The facility administers community programs and also serves as a post-disaster response command centre. The facility and site have been made more sustainable through a consensus-based integrated design process among users and department staff.

The headquarters demonstrates the role public buildings can play in communities as mentors in sustainable design. Site features include local dry-stone wall construction, native drought-resistant plants and a lightweight planted canopy roof. The 40,000 square foot building is highly insulated, and is set into a hillside so that the lower level is able to benefit from the moderating effect of the surrounding earth.

Sustainable technologies for the building also include a geo-thermal system linked with heat recovery features. The system is also designed to anticipate an ice storage reservoir, which will allow for the use of overnight power at discounted rates to make ice. This chilled medium will then serve to provide cooling for the headquarters during the day, when electrical rates are at their peak. The geo-thermal field will also allow for the future connection of adjacent county facilities as their heating and cooling equipment comes due for replacement.

This efficient use of resources in combination with a geo-thermal renewable energy system provides a local working example of the soft path approach to sustainable building design. The soft path approach balances community, environmental, and economic priorities – essential for public buy-in. Although skepticism about costs for such innovative technologies continues, both construction costs and operating savings, for Mentoring Buildings can be locally tracked and discussed. Confidence is also increased with endorsement by community organizations, such as Northumberland County, who are demonstrating commitment to a more sustainable approach. The headquarters facility was built for $190/square foot (2007). Pay-back on the geo-thermal system and related soft path strategies is anticipated within seven to 10 years. These projections are based on outcomes from other applications of this technology operating in community facilities in the county. By initiating and then building on local conservation and renewable energy experience, confidence in municipal leadership is enhanced and commitment to the local economy, environment, and community is reinforced.

The first months of operation through the winter of 2008 saw the county headquarters building drawing minimal energy from the geo-thermal field, and then recycling it in combination with heat from lighting, equipment and people in the building to maintain required temperatures and air quality. The facility is fulfilling the goal of enabling the county to demonstrate that it is doing its part to reduce fossil fuel emissions. In Canada, in the order of 35 percent of greenhouse gases are generated by buildings.

*BUILDINGS, cont'd on p. 40*

ize that, until I made the time to know more about my people, I'd never be able to create a team, instill loyalty or give my "human resources" a sense of purpose.

By not making time for my staff, I was communicating very loudly that I wasn't interested in their well being and growth – people quit managers for that reason.

Those are just three mistakes made by a somewhat reasonably intelligent person thrust into a management role without training. There were other mistakes I made, and some that I intuitively avoided. I never chastised an employee in front of others – but I've seen new (and sadly older) managers do that. I never broke a promise to an employee, but I did inadvertently play favourites. I gave the most interesting assignments to the most capable – without realizing that that created resentment amongst other staff members – and without realizing that interesting assignments are the best training tools at my disposal, and the very best way to motivate people to excel and to build loyalty.

It requires no mean intent to be a bad manager. All that's required is ready-made ignorance. The cure is a minimal, continual dose of management training – provided before, during and after the transition to managing people. People quit bad managers. Regardless of how good the organization, no matter the public image, it's the person – to whom we report who has the greatest contribution to our daily work experience. Bad managers drive out good employees.

By the same token, a good manager, one who treats employees fairly, honestly, and with integrity, will retain staff in all but the most tyrannical of organizations. Even though Gandhi wasn't a traditional manager, he had it right: "Be the change you want to see in your organization" – even if his organization was the entire world. His wisdom still rings true. For better or worse, its individuals who create the world/organizations we live in. MW

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### Transferable Concept

The concept of Mentoring Buildings is also transferable to other municipal infrastructure. Roads, street lighting, signals, bridges, parks, supply, treatment, and disposal systems all represent opportunities for introducing soft path approaches in communities to reduce operating costs, increase community skills, and address climate change.

Next steps include building links among these municipal initiatives, so that all are able to benefit more quickly from these accomplishments. Consider, for example, community twinning. An established international network is in place today of municipalities sharing community experiences and participating in exchange programs. With links introduced via the Internet, this network of local environmental action partnerships can add tremendous new value as communities display and share the policies, programs, and projects that are making them greener places to live, work, and invest.

Not only will towns and cities be able to build new civic and business relationships, the opportunities to accelerate efforts to address resource and ecological problems will leap ahead. Those at the forefront of this wave will also benefit from engaging with new partners in the developing world, where similar economic constraints are giving rise to energy and environmental technology innovations to address the same economic and environmental challenges.

### Reconnecting to the Environment

The opening of the Northumberland County headquarters in Fall 2007 attracted over 300 from the community, and groups continue to contact the county to educate themselves about the benefits that energy conservation measures in combination with geo-thermal technology provide.

Through such examples, communities are becoming increasingly aware of Mentoring Buildings and their role in creating an awareness of how the soft path can assist municipalities to better manage costs, create new employment opportunities and provide healthier more desirable facilities through their reconnection to the environment. MW