

A green energy future

LOOKING THROUGH A NEW LENS

Tom McLaren

Municipalities across Canada are focusing more than ever before on their energy assets and liabilities, and forging homegrown opportunities. The reasons are as many and as varied as the communities they represent. Leadership for the issue sometimes comes from a sense of community that says "we want to be a green municipality, with a low carbon footprint, building a sustainable triple bottom line community." For others, the incentive comes from another order of government that has made funding and regulatory incentives available, such as incentives for generation development (eg. Ontario's *Green Energy and Green Economy Act*) or integrated climate change and energy initiatives such as British Columbia's Community Action on Energy and Emissions Program.

To adapt a phrase, when it comes to municipalities getting on with it, "Elvis has entered the building" – albeit a newly energy retrofitted one.

In addition to funding and regulatory incentives, there are also cost savings to be had and local economic development benefits. Energy conservation initiatives

such as building energy retrofits can often be funded entirely



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from the savings they accrue. Energy generation projects also bring revenue participation potential to municipal coffers, and attract direct investment and employment to host communities.

Moreover, community energy planning has become a focus as a result of the more accelerated progression of provincial and national climate change policies, such as the antici-

pated carbon cap and trade regime. Governments have realized that urban communities represent as much as half of the total greenhouse gas reduction challenge, owing to the GHG contributions of buildings, residences, transportation, waste management, and water use.

Along with the plethora of energy and climate change programs and policy initiatives, there has also been a corresponding growth in municipal networks and joint sector bodies such



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as the Partners for Climate Protection (Federation of Canadian Municipalities) and QUEST (Quality Urban Energy Systems of Tomorrow) and a number of community energy associations and organizations. Initiatives such as QUEST recognize that, because our urban environments constitute 50 percent or more of the climate change challenge, actions at the community level are the most promising place to begin. And they know integrating energy systems across entire communities will yield the greatest results.

Barriers to an Integrated Approach

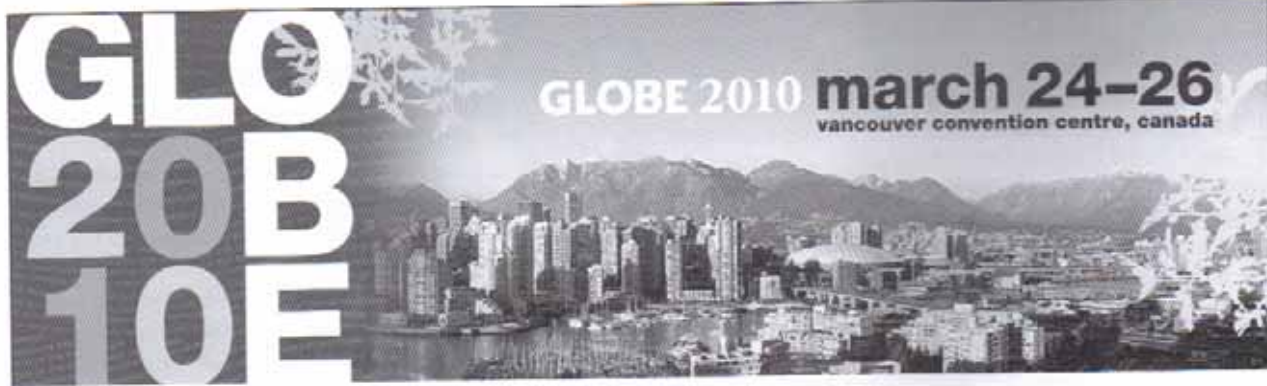
Despite the apparent benefits and logic of a more integrated all-system, community-wide approach, why are there not more examples at which to point? Many local governments are tackling the problem through various disjointed vertical "stove pipe" solutions, and others may be more reactionary than proactive, dealing with opportunities and issues one-by-one as the next crisis looms.

The Union of British Columbia Municipalities has documented a number of barriers to municipalities addressing the

green energy and green economy challenge. Some of the major ones are:

- ▶ lack of staff resources, time, and expertise;
- ▶ funding for municipal staff to focus on these programs;
- ▶ lack of coordinated support from federal and provincial governments;
- ▶ short/insufficient timelines to complete programs; and
- ▶ limited number of technical experts/consultants.

In Ontario, the Ontario Power Authority (OPA) is responsible for leading a cultural shift under the province's



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newly passed *Green Energy and Green Economy Act*. The legislation provides the authority for municipalities to develop and own small scale power generation facilities and sell surplus power back into the grid, thereby offering a new municipal revenue opportunity after a reasonably short pay-back period. Thus, there may well be one other important cultural barrier, in that many municipalities have a debt-averse culture for a variety of legislated and historical reasons. It may require a cultural shift on the part of municipalities to think in terms of spending money to save money – let alone spending money to make money. In this regard, energy and green economy projects will compete with other badly needed pieces of municipal infrastructure, such as replacing Canada's aging municipal water systems and underfunded and strained recession-era social programs.

Colin Andersen, CEO of the OPA notes however, that there are a number of economic benefits for municipalities to directly sponsor or encourage renewable energy development in their communities, including:

- ▶ new sources of property tax revenue;
- ▶ additional income to landowners that host renewable energy projects;
- ▶ supply chain and local employment spin-offs owing to domestic purchasing incentives and local supply; and
- ▶ direct revenue through municipal ownership of generation.

Mr. Andersen notes the OPA "recognizes that not all communities are homogeneous, but energy generation is a vital aspect of local infrastructure and economic growth for the community. The OPA is taking a holistic approach in looking at the province, and would encourage municipalities to do the same in their communities."

Many communities across Canada have taken this advice or have been well down this road already. Starting in 1996, the City of Kamloops became one of BC's and Canada's first communities to develop what the BC Commu-

nity Energy Association termed a "systemic, energy-focused view of its operations in a community energy plan."

According to a recently published case study, the community is progressing along a dynamic path and has a number of important lessons under its belt, including the need to avoid relying too extensively on individual champions, the importance of nurturing links with local utility companies and other organizations, and the need to ensure a sense of ownership from those who will be responsible for implementation.

Other municipalities that are more recently into the game must deal with the economic realities of 2009 and the "worst recession since the Depression." Welland, Ontario, for example, is taking a proactive approach to finding the low-hanging fruit to revitalize its economic base by thoughtfully examining its energy assets and how to develop them.

Dan Degazio, the City of Welland's economic development manager says the city is "looking at every possible economic development opportunity, including renewable energy development. With energy projects comes new investment and jobs. We need to create the linkage between lower cost energy and attracting new industry, and the jobs and local revenues that go with it."

Viewing the Challenge Through Different Lenses

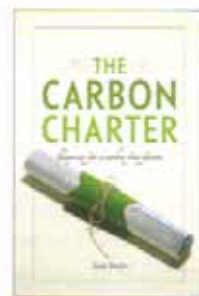
The fact of the matter is that one size does not fit all when it comes to creating a green energy and green economy future. Each community, be it Kamloops or Welland, has its own character, priorities, local values and assets. While energy conservation initiatives can benefit any municipality, how do municipalities go beyond the obvious to evaluate the other assets they have?

As a starting point, there are a number of important lenses from which to view the green energy and green economy issue.

Values – Understand the community's sense of self – how does a community see itself on this issue? What are its aspirations and priorities – environmental, economic development, land



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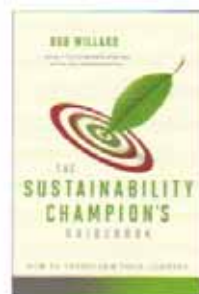
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use? A community with prime agricultural lands and values, for example, may want to ensure that solar energy farms are not located on prime agricultural land. Other communities want to place a priority on energy conservation before pursuing generation options.

Historic – The historic lens looks at what has gone before, to provide guidance to the overall planning effort. Can existing initiatives or studies be incorporated into the process or accelerate its development? Why go over old ground? Review approval plans and guidance documents – other strategic plans and studies that may have a bearing on the final strategy.

Assets – What assets does the community already possess (both hard and soft)? Prepare a green energy and green environment asset inventory. This is the one lens where it is likely best to supplement your team with outside experts who have some experience across the spectrum. Energy conservation opportunities are certainly on the list, but assets can exist almost anywhere, and all are not equal. Some depend on nascent or untested technology. Others may seem practical at first glance – for example, a forestry-based community who thinks of biomass-fired generation, while a hydro opportunity lurks nearby unrealized. Every new piece of municipal or public infrastructure on the planning table also needs to be seen through this lens to determine what green economy opportunities could co-exist with the new project. A harbour improvement project could present an ideal opportunity to consider the role that wind power generation could play.

Financial – How will the plan be financed, what private sector partners may be interested, and what risks need to be considered? What federal and provincial programs could be leveraged, for planning and financing the study and the ultimate plan? Financial risks are not the only risks to consider – what about the policy risks, such as the evolving greenhouse gas cap and trade regime?

Community – What does the community think, and have you tested their values? Who are the various stake-

holders that need to be mobilized to support the new plan? Which partnerships can be leveraged or created? What cultural and organizational barriers must be overcome? How do you ensure that all community voices have an opportunity to be heard? Being green will require a change in behaviour, and change experts suggest that you need to take your estimate of how much communication is

needed and then multiply that five to 10 times to really make a difference.

Pursuing renewable and clean energy initiatives can save money, result in new job creation, community investment, and municipal tax revenue at a time when the competition for private and public sector investment is intense, if it is available at all. *AWW*

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