



David Miller

Cities “LEED” the way in green policies

It's a simple fact that cities use a lot of energy. Energy heats, cools and lights buildings. It powers infrastructure and industry, runs computers and other technologies and fuels cars, trucks, buses and subways. These activities are concentrated in a way that draws heavily on energy resources and results in individual cities emitting large quantities of air-quality and climate-warming pollutants.

But cities are also an extraordinary source of creativity, bringing together a diversity of people and resources to spark innovative responses to all types of environmental, economic, social and cultural challenges. The density that defines cities also means that city-wide policies that reduce the use of oil and natural gas can result in dramatic environmental benefits.

Initiatives that focus on reducing the use of conventional fuels have a positive impact on both climate change and air quality. But the recent hold placed by the federal government on climate change programs such as emissions trading and funding for energy efficiency will most certainly have negative ramifications for air quality as well as greenhouse gas emissions.

In 1989, the City of Toronto was the first city in the world to commit to a target for reducing climate-warming gases. And now every major city in Canada has a similar goal. Toronto's original target was 20 percent below 1989 emissions by the year 2005. Recently, we've joined with other municipal leaders from Canada and around the world to commit to new reduction targets of 30 percent before 2020 and 80 percent by 2050, based on 1990 levels. In this scenario, even if cleaner air is a preferred goal, there is no reason to back away from commitments made under the Kyoto Protocol.

Even as national governments, including Canada, continue to talk

about poor air quality and bemoan their ability to stop per capita increases in greenhouse gas emissions, it is cities that are taking action.

In Toronto, new programs aim to not only reduce emissions and improve air quality but stimulate economic development and create a more beautiful city. Our new Green Roofs Strategy includes a financial incentive for home owners to install landscaped roofs and makes green roofs mandatory — where structurally feasible — on all city-owned buildings when reroofing. Green roofs not only save energy and purify the air, they reduce water runoff after storms and enhance biodiversity and green space in the city. The policy creates jobs and strengthens local capacity for working with environmental technology.

The new Toronto Green Building Standard combines elements of the Leadership in Energy and Environmental Design (LEED) green building system and similar programs to create a standard for energy efficiency, indoor air quality, sustainable materials use, green space and other site and building features. This program, too, promotes economic growth and creates green jobs.

At the City of Toronto, an aggressive retrofitting program has led to energy-efficient technology in traffic signals, arenas, fire halls, civic centres and other city-owned buildings. Methane — 21 times more potent as a greenhouse gas than carbon dioxide — is collected from decaying waste in the city's landfills and converted to electricity, providing the city with royalties of close to \$2.5 million per year.

Together these initiatives have allowed the City of Toronto to reduce emissions from its own operations in 2005 by approximately 40 percent over 1990 levels.

Partnerships are essential to a successful climate-change and clean air

strategy. The Better Buildings Partnership has forged 450 partnerships, primarily with large building owners. Over 39 million square feet (3.6 million square metres) of floor space has been retrofitted for a reduction in emissions of over 170,000 tonnes per year. The Toronto Atmospheric Fund has issued grants and low-interest loans to more than 150 projects with joint clean air and climate change benefits.

Local data indicates emissions from cars and other vehicles are responsible for as much pollution as buildings and industry. As a result, our green fleet transition program has been accelerated so that nearly 200 hybrid and alternative vehicles have already been purchased, with full greening of the fleet scheduled for completion by the end of 2008. We've purchased 150 new hybrid buses for our public transit system and all buses in the system now run on biofuels.

With a target of meeting 25 percent of our energy needs through renewables, we're increasingly relying on innovative and renewable energy technologies to reduce conventional energy use, including deep-lake-water cooling, which provides air conditioning to over 50 high rises in the downtown core, and installing Canada's largest solar photovoltaic system on our exhibition grounds and an urban wind turbine that provides lighting to over 250 homes.

Policies designed to improve air quality and combat climate change go hand-in-hand. Better air quality and slowing the impacts of climate change require a multifaceted approach that links the good will of elected officials, committed business leaders, city staff and citizens, learned experts, scientific data and ground-breaking technology with sustainable long-term funding and complementary policies from other orders of government.

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