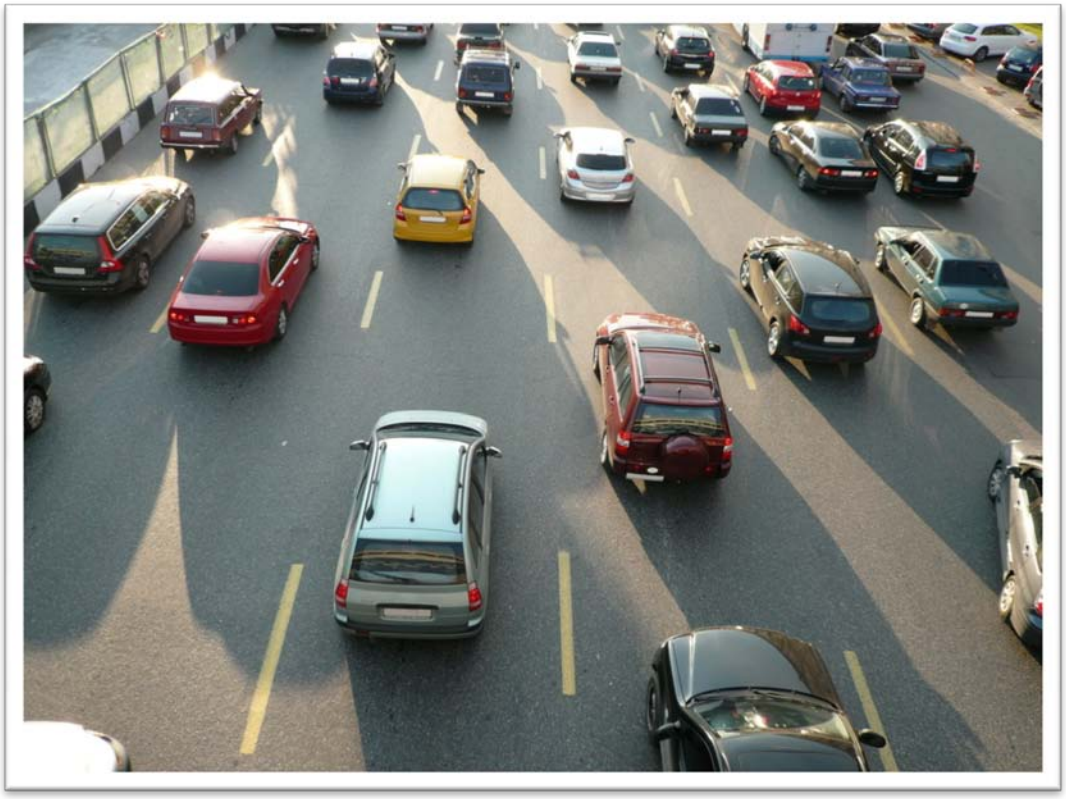


Smart Budget :

A Background Paper on Environmental Pricing Reform for Local Governments

January 2010

Sustainable Prosperity

BACKGROUND PAPER

Smart Budget:
Environmental Pricing Reform for Local Governments

Prepared for Sustainable Prosperity by David Thompson and Andrew Bevan

Sustainable Prosperity
555 King Edward Ave
Ottawa, ON, Canada
K1N 6N5
E-mail: info@sustainableprosperity.ca
Web site: www.sustainableprosperity.ca

Sustainable Prosperity is a national policy and research network aimed at building a healthy environment and economy, by making markets work *for* the environment. Based at the University of Ottawa, it is a non-partisan, multi-stakeholder research and policy initiative that aims to build a greener and more prosperous economy for all Canadians. For more information, see: www.sustainableprosperity.ca.

About the Authors

David Thompson is Director of Municipal Projects for Sustainable Prosperity. He also operates an independent consultancy focusing on environmental policy and organizational development. His clients include government, universities, businesses, First Nations, labour organizations and non-profits. A former lawyer in government and the non-profit sector, he has held management and board positions in several organizations. David holds Masters degrees in Law (Kings College, University of London) and Environmental Economics (University College, University of London).

Andrew Bevan is the Executive Director of Sustainable Prosperity. Prior to joining Sustainable Prosperity, he served as Principal Secretary to the Leader of the Official Opposition. His experience in working with senior levels of the public service, the private sector, the national media, and among MPs and cabinet ministers has been honed in a variety of senior staff positions, including Chief of Staff to the Minister of State for Infrastructure and Communities, where he played an integral role in the development and implementation of one of the government's priorities, the New Deal for Cities and Communities.

Acknowledgements

The basic ideas of environmental economics and pricing reform have been worked out by economists over the last hundred years. Likewise scholars have increasingly studied municipal finance and its relationship to sprawl and other issues. There is a wealth of publicly available economic theory and data to support the ideas in this document. In many ways, this document merely scratches the surface of, and provides access points to, that literature. The authors acknowledge the solid foundations for this document, which were built by others.

Thanks go to Stephanie Cairns and Stewart Elgie for early collaboration on the content of this document, and to Jane McDonald for guidance and useful input. Thanks also go to Enid Slack and Brian Ladd for their very helpful reviews. The writers particularly would like to acknowledge the contributions of Donna Morton and Zane Parker, who provided strategic advice and thoughtful reviews, and the Centre for Integral Economics, the work of which gave inspiration and a significant basis for much of this document.[1]

[1] See www.integraleconomics.org. The Centre for Integral Economics has done a great deal of work to promote EPR at the local government level. Much of that work was ahead of its time.

Table of Contents

Executive Summary

Purpose of this Report

This report has been prepared to help community leaders in both the public and private sector gain a practical understanding of the potential role for environmental pricing reform (EPR) in building sustainable communities. It also seeks to facilitate a dialogue among all key community interests on identifying opportunities to address local government priorities through a mix of EPR policy instruments.

Benefits of Environmental Pricing Reform

EPR is a name given to a set of fiscal, tax and planning policy instruments that seek to use pricing to influence behaviour in support of environmental and economic policy objectives. Examples include subsidy corrections, property tax adjustments, development cost charges, unit pricing of utilities and vehicle-specific charges.

While there is variability among the instruments, and overlap between the issues they can address, the general principles of the various instruments are consistent: by changing the prices of various goods and services, EPR instruments can increase the costs of environmentally harmful actions or directions, decrease the costs of more sustainable patterns, and improve the fiscal situations of local governments. EPR instruments are also based on the user pay principle.

EPR can be effective under any public policy setting. However, it appears to be particularly appropriate for helping local governments address the spectrum of interrelated environmental, economic and social challenges that have arisen in recent years.

EPR can help local governments build more sustainable communities – cleaner, more functional, with more efficient economies, a healthier population, and an improved financial position. To thrive in the long term, communities can and must create sustainable economies and preserve the environment on which they depend. Local governments are developing visions – goals, targets, and plans – to address their environmental issues. However, the implementation often lags behind. Citizens and local governments need more than a vision; they need the policy tools to make the vision a reality.

At the same time, many local governments find themselves in a difficult financial position. After major cuts to provincial funding in the 1990s, and downloading of unfunded responsibilities, local governments are increasingly stretched. With a limited range of revenue sources, many local governments find it difficult to meet existing obligations, let alone spend their way to environmental sustainability. They require a more diverse range of revenue streams.

EPR offers a set of strategies that can help bridge both gaps: the gap between environmental vision and implementation, and the gap between the current fiscal constraints and the needed fiscal flexibility. EPR aligns community goals with the power of market forces. It can be good for the environment and the economy, and help to diversify revenues and reduce reliance on property taxes.

Environmental Pricing Reform Instruments for Local Governments

Local governments have a wide array of EPR instruments from which to choose. Many of these are already at work in communities around the world. There are three general categories of instruments:

- *Land/Property Development Tools*, such as land value taxation, density-based property taxation, improvement districts and development cost charge improvements;
- *Financial Tools*, such fuel taxes, parking prices, road pricing and distance-based pricing;
- *Vehicle-Specific Tools*, such as funds and grants, unit pricing of utilities, and special fees and levies.

Local governments can select appropriate EPR instruments to address policy objectives in such challenging areas as land use, solid waste and water and liquid waste management, electricity consumption, transportation, local air pollution, greenhouse gas emissions, buildings, social equity and local government finances.

Building Environmental Pricing Reform Partnerships in the Community: Approaches for Local Government Leaders

Environmental pricing reform is a complex and sometimes controversial topic. There is the potential for negative reactions among various interests to new or unfamiliar initiatives. This potential can be mitigated with sensitive instrument design. However, local governments should also apply proactive communications strategies and processes that engage stakeholders.

Public education and outreach and strategic media communications are key to opening a discussion on EPR and successfully developing and implementing changes. Local government leaders need to link changes to a strong rationale and list of community benefits. This information must be clearly and broadly communicated. Mainstream media will be a key component of these communications. At the same time, community-based communications and social marketing can be used to build higher levels of commitment to the initiative.

The list of stakeholders relevant to EPR policy will be unique for each situation, community or issue. EPR initiatives will be perceived differently by each stakeholder, depending on anticipated impacts to their lives and businesses. Understanding these different

perspectives and the messages that EPR may send to each is key to successfully developing, refining and implementing an effective EPR initiative.

Looking Ahead

The ideas and suggestions in this report are not exhaustive. There is enormous scope for creativity in applying EPR instruments to specific local issues. In addition, there are considerable resources available to local governments and other community leaders who wish to employ EPR to address their environmental, economic, and fiscal issues. These resources show how local governments can adopt EPR right now. Many communities are already demonstrating that EPR is feasible, environmentally and economically beneficial to the community, and capable of winning support from a broad spectrum of community interests.

A more detailed Environmental Pricing Reform Toolkit is available at www.sustainableprosperity.ca.

Introduction to the Report

Environmental pricing reform (EPR) is emerging as a powerful tool for local governments in their efforts to address two related challenges:

- the need to reduce our collective impact on the environment and develop more economically and environmentally sustainable communities; and
- the gap at the local government level between current fiscal constraints and much-needed fiscal flexibility.

Through a strategic mix of proven fiscal, tax and planning policy instruments, local governments can use EPR to align community goals with the power of market forces. Communities in Canada and other countries already have discovered that EPR can be good for the environment and the economy, and help to diversify revenues and reduce reliance on property taxes.

This report has been prepared to help community leaders in both the public and private sector gain a practical understanding of the potential role for EPR in building sustainable communities. It also seeks to facilitate a dialogue among all key community interests on identifying opportunities to address local government priorities through a mix of EPR policy instruments.

The report is presented in three parts:

- **Part 1** provides an overview of EPR, focusing on its applicability and benefits at the local government level.
- **Part 2** presents EPR Instruments for local governments. First, EPR policy instruments are summarized under three general categories. Next, the report identifies how various EPR instruments can help local governments address specific policy challenges in such areas as land use, transportation, waste management and air quality.
- **Part 3** presents general strategies for local government leaders in building community support and partnerships around EPR initiatives. Specific strategies are outlined for proactive communications and stakeholder engagement.

EPR is a quickly evolving field, with new case studies regularly being identified in communities around the world. Thus, this report should be seen as a primer on EPR and as a starting point for local government officials, business leaders and other community interests interested in building sustainable communities.

Part 1 Environmental Pricing Reform and Local Governments

1.1 An Overview of Environmental Pricing Reform

EPR is a name given to a set of fiscal, tax and planning policy instruments that seek to use pricing to influence behaviour in support of environmental and economic policy objectives.

EPR strategies go by a variety of names, including market-based instruments (MBIs);[2] fiscal mechanisms;[3] economic instruments;[4] ecological fiscal reform;[5] environmental fiscal reform;[6] market reforms;[7] tax shifting,[8] market-based environmental policy instruments;[9] designer carrots;[10] and others.

Common EPR instruments include:

- *Subsidy corrections*[11], including removing environmentally harmful subsidies and introducing subsidies that improve environmental performance;
- *Property tax adjustments* to encourage specific objectives such as environmental protection, densification and brownfield redevelopment;
- *Development Cost Charges* based on full financial cost recovery, and the internalization of environmental costs;
- *Unit pricing of utilities* to encourage reduced consumption and improved industrial processes, while reducing the scale and cost of community infrastructure required;

[2] See, for example, European Environment Agency, "EEA Technical report 8/2005: Market-based instruments for environmental policy in Europe" (EEA, Jan 26, 2006) http://reports.eea.europa.eu/technical_report_2005_8/en accessed November 30, 2008.
[3] See, for example, Alberta Environment, "Market Based Instruments and Fiscal Mechanisms" http://www.environment.alberta.ca/1996.html accessed November 30, 2008.
[4] See, for example, UCD Dublin, "Economic Instruments in Environmental Policy" http://www.economicinstruments.deewhy.ie/index.php/home accessed November 28, 2008.
[5] See, for example, Pembina Institute, "Fiscally Green" http://www.fiscallygreen.ca/ accessed November 30, 2008.
[6] See, for example, World Bank, "Environmental Fiscal Reform and How to Achieve It" (May 2005) http://siteresources.worldbank.org/INTRANETENVIRONMENT/Publications/20712869/EnvFiscalReform.pdf accessed November 30, 2008.
[7] See, for example, Victoria Transportation Policy Institute, "Market Reforms" http://www.vtpi.org/tdm/tdm29.htm accessed November 30, 2008.
[8] See, for example, A. Durning and Y. Bauman, *Tax Shifting* (Sightline Institute, 1998) http://www.sightline.org/publications/books/tax-shift/tax. accessed December 7, 2008.
[9] See, for example, R. Stavins, "Experience with Market-Based Environmental Policy Instruments" (RFF Nov. 2001) http://www.rff.org/documents/RFF-DP-01-58.pdf accessed November 30, 2008.
[10] Government of Australia, "Designer Carrots" http://marketbasedinstruments.gov.au/ accessed November 30, 2008.
[11] See the "green scissors" concept, e.g., at http://www.greenscissors.com/ and http://action.foe.org/content.jsp?content_KEY=2703&t=2007_Green-Scissors.dwt.

- *Vehicle-specific charges*, such as fuel taxes and parking pricing to help recover the significant costs to the community of motor vehicle use, and encourage more efficient use of sustainable modes of transportation; and

- *Special fees and taxes* for specific activities that harm the environment, such as emissions of pollutants into the sewer systems.

Part 2 of this report provides a detailed review of many EPR instruments.

While there is variability between the instruments, and overlap between the issues they can address, the general principles of the various instruments are consistent: by changing the prices of various goods and services, EPR instruments can increase the costs of environmentally harmful actions or directions, decrease the costs of more sustainable patterns, and improve the fiscal situations of local governments.

EPR instruments are also based on the user pay principle. While user fees may raise bad memories of regressive government cuts to essential programs and services, EPR user pay is quite different. First, EPR user pay can be designed to be progressive. Second, it targets public "bads" (e.g., pollution), not public goods (e.g., health care).

1.2 Addressing Local Government Challenges: The Benefits of Environmental Pricing Reform

1.2.1 Local Government Challenges

EPR has applicability under any public policy setting. However, it appears to be particularly appropriate for helping local governments address the spectrum of interrelated environmental, economic and social challenges that have arisen in recent years.

EPR can help local governments build more sustainable communities – cleaner, more functional, with more efficient economies, a healthier population, and with an improved financial position.

There is a growing recognition amongst the public, business, and governments that we must address our impact on the environment, and develop a more sustainable economy. Opinion research shows that Canadians hold the environment as a high priority, even in times of economic slowdown. Rising greenhouse gas emissions, threatened water supplies, smog that kills thousands of Canadians per year, sprawl that eats up farmland and wildlife habitat, traffic congestion that costs billions of dollars in lost productivity, are just some of the issues that are in the news frequently, and that constitute an important concern for Canadians.

Canadians also view the environment as an issue requiring government leadership. And they believe (and expect) that their local governments will be more responsive to their wishes.

To thrive in the long term, communities can and must create sustainable economies and preserve the environment on which they depend. Local governments are developing visions – goals, targets, and plans – to address their environmental issues. However, the implementation often lags behind. Citizens and local governments need more than a vision; they need the policy tools to get from here to there.

At the same time, many local governments find themselves in a difficult financial position. After major cuts to provincial funding in the 1990s, and downloading of unfunded responsibilities, local governments are increasingly stretched. With a limited range of revenue sources, many local governments find it difficult to meet existing obligations, let alone spend their way to environmental sustainability. They need a more diverse range of revenue streams, especially as federal and provincial governments will concentrate in the coming years on restoring their own fiscal situation given the deficits resulting from the recession of 2008-09.

EPR offers a set of strategies that can help bridge both gaps: the gap between environmental vision and implementation, and the gap between the current fiscal constraints and the needed fiscal flexibility. EPR aligns community goals with the power of market forces. It can be good for the environment and the economy, and help to diversify revenues and reduce future growth in property taxes.

As discussed in Part 2 of this report, EPR can help local governments address challenges in such areas as:

- land use;
- solid waste and water and liquid waste management;
- electricity consumption;
- transportation;
- local air pollution;
- greenhouse gas emissions;
- buildings;
- social equity; and
- local government finances.

1.2.2 The Role of Pricing

EPR is an effective governance tool because prices are a powerful driver of decisions and behaviour. If we want to achieve broad environmental goals, then prices need to reflect those goals.
Environmental economics – the science behind EPR – is built on a solid foundation of non-controversial, standard microeconomics. Economists point out that prices profoundly influence a wide range of individual and corporate decisions - decisions that affect communities and local governments. And yet existing prices (and the policies that support them) often subsidize decisions that undermine the long-term well being of local communities and their residents.

Neither firms nor consumers *want* to cause excessive environmental degradation. However, they operate in a system that inevitably results in just that -- through thousands of daily, economically rational decisions that fail to reflect environmental costs.

When local governments raise the price of something (e.g., through a user fee or tax), society demands less of that thing. Conversely, when they reduce the price of something (by reducing taxes, not taxing, or subsidizing it), society demands more of that thing.

At the same time, EPR enables local government to diversify their revenue streams, and reduce excessive reliance on property taxation, which provides the majority of local government funding in Canada. Many commentators view property taxes as regressive. Furthermore, they don't grow automatically as the economy grows. They are also inefficient when used to fund infrastructure and services, as they fail to provide a price signal to the consumers of those things (and thus artificially inflate demand for, and use of, them).

Prices profoundly influence a wide range of individual and corporate decisions - decisions that affect communities and local governments. These include decisions on the location and nature of new developments, the use of transportation options, demand on utilities, and others. Yet existing prices (and the policies that support them) often subsidize decisions that undermine the long-term well being of local communities and their residents.

Where market prices fail to include environmental costs or benefits, they mislead firms and consumers about real values, and they encourage decisions that lead to environmental harm. Such "externalities" also cause economic distortions and inefficiencies. EPR is the process of adjusting market prices to include environmental costs and benefits.[12]

[12] For further brief discussion of EPR, see Sustainable Prosperity website at http://sustainableprosperity.ca/content/frequently-asked-questions.

> "Often in Canada, there is little effort put to aligning the price of services toward the full marginal cost of delivery (including capital replacement and environmental impacts)… Nonetheless, there is significant potential to increase [the use of consumption-based levies] in areas where there are not over-riding equity concerns and where consumption can be accurately measured. Water, sewers, electricity and garbage collection all satisfy this requirement."
>
> - TD Bank, "Mind the Gap"[13]

Clearly, prices do influence behaviour. Government policies – deliberately or otherwise – influence those prices. There is no question of using prices and policies to "engineer" behaviour; they already do so. The real question is whether or not the behaviour is directed in a way that is aligned with community values.

Any time a local government collects money—through property taxes, development cost charges, or user fees—there is an opportunity to incentivize behaviour in a way that supports (or hinders) the community's environmental goals.

For example, when municipalities tax the improvements on land, homeowners will be discouraged from fixing up their house or adding a suite. At the same time, speculators will find it relatively cheap to hold onto a derelict building or empty lot near the town centre until prices rise. The community at large picks up the tab for the urban decay and sprawl that can result from such incentives. Similarly, if waste disposal is free or under priced, then there is no incentive to reduce wasteful activities and communities get more garbage than they would like. The cost of dealing with the waste is again borne by the entire community.

Getting the prices right, or perhaps more accurately making prices tell the truth,[14] is the essence of EPR. EPR makes it cheaper (or more profitable) to protect the environment and improve the community by aligning self-interest with environmental protection. By repairing market failures, EPR can improve economic efficiency. And by helping to build the green sectors of the economy, it can help position an economy to be more competitive in the future. For example, EPR instruments that reduce sprawl can also reduce productivity losses due to traffic congestion. Furthermore, a fee or charge on things that cause environmental harm provides revenues to government that can be used to reduce other, distortionary taxes.[15] Finally, EPR rewards people and firms who take action to improve the environment, and provides an incentive for those who have not yet done so.

---

[13] D. Burleton and B. Caranci, "Mind the Gap: Finding the Money to Upgrade Canada's Aging Public Infrastructure" (TD Bank Economics, May 20, 2004) p.ii http://www.td.com/economics/special/infra04_exec.pdf accessed November 30, 2008.

[14] Sightline Institute, "Make Prices Tell the Truth" http://www.sightline.org/research/sust_toolkit/fundamentals/prices_truth. Credit goes to Donna Morton and Zane Parker of the Centre for Integral Economics for pointing out this expression and source.

[15] R Schöb, "The Double Dividend Hypothesis of Environmental Taxes: A Survey" (Otto-von-Guericke-University Magdeburg and CESifo, Munich March 2003) p.1 http://www.wiwiss.fu-berlin.de/institute/finanzen/schoeb/forschung/forschung_dateien/taxation02.pdf accessed November 27, 2008. Intelligent instrument design can yield both environmental and economic improvements: Indiana University Media

The economics behind EPR

The analysis of externalities and their internalization through EPR-type instruments is the core of environmental economics. Environmental economics is rooted in standard, neo-classical microeconomics. This analysis has been well-established over several decades, and the basic conclusions are non-controversial.

As a field, environmental economics is distinct from ecological economics, which uses an entirely different theoretical framework. There are many textbooks that provide a general introduction to environmental economics.[16] Several websites provide a basic introduction and links to various resources.[17]

"Environmental economics is a distinct branch of economics that acknowledges the value of both the environment and economic activity and makes choices based on those values. The goal is to balance the economic activity and the environmental impacts by taking into account all the costs and benefits. The theories are designed to take into account pollution and natural resource depletion, which the current model of market systems fails to do. This "failure" needs to be addressed by correcting prices so they take into account "external" costs. External costs are uncompensated side effects of human actions. For example, if a stream is polluted by runoff from agricultural land, the people downstream suffer a negative external cost or externality.

"The assumption in environmental economics is that the environment provides resources (renewable and non-renewable), assimilates waste, and provides aesthetic pleasure to humans. These are economic functions because they have positive economic value and could be bought and sold in the market place. However, traditionally, their value was not recognized because there is no market for these services (to establish a price), which is why economists talk about "market failure". Market failure is defined as the inability of markets to reflect the full social costs or benefits of a good, service, or state of the world. Therefore, when markets fail, the result will be inefficient or unfavorable allocation of resources. Since economic theory wants to achieve efficiency, environmental economics is used as a tool to find a balance in the world's system of resource use."

- E-Law, "A Brief Introduction to Environmental Economics"[18]

Relations, "The double dividend: Can "green taxes" help the environment and the economy?" (April 8 , 2008) http://newsinfo.iu.edu/web/page/print/7937.html accessed November 27, 2008.

[16] For a partial list of textbooks see David Pearce, "Guide to Environmental Economics Textbooks" (Centre for Social and Economic Research on the Global Environment, June 2002) http://www.ucl.ac.uk/~uctpa15/envecontexts.pdf accessed November 26, 2008.

[17] For example, see: United States Environmental Protection Agency, National Centre for Environmental Economics http://yosemite.epa.gov/ee/epa/eed.nsf/pages/homepage; World Bank, "Environmental Economics and Indicators" http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/ENVIRONMENT/EXTEEI/0,,menuPK:408056~pagePK:149018~piPK:149093~theSitePK:408050,00.html; Environmental Economics http://www.env-econ.net/; CSA, "Environmental Economics: Basic Concepts and Debates" (April 2007) http://www.csa.com/discoveryguides/envecon/review.php. For international examples of the use of EPR instruments, see USEPA, "International Experiences with Economic Incentives for Protecting the Environment" http://yosemite.epa.gov/EE/epa/eerm.nsf/vwSER/82606BB6498EAF5385256F4A00582728?OpenDocument; USEPA, "The United States Experience with Economic Incentives for Pollution Control" http://yosemite.epa.gov/ee/epa/eed.nsf/Webpages/USExperienceWithEconomicIncentives.html accessed December 6, 2008.

[18] E-LAW, "A Brief Introduction to Environmental Economics" http://www.elaw.org/node/2475 accessed November 27, 2008.

"The "polluter pays" principle requires that the cost associated with environmental clean-up is borne by the parties responsible... External costs include the environmental impacts of consuming a good or service. These external costs should be incorporated into municipal tax rates, so that consumers see the full cost of providing a service."

- Federation of Canadian Municipalities, Policy Statement on Environmental Issues[19]

EPR enables governments to shift prices so that they match their environmental objectives. When the correct incentives are applied, behaviour follows. EPR is not a "hard" strategy, like an outright ban on an activity, and so it does not seek 100% compliance with a given goal. It is instead a "soft" strategy; while allowing for some flexibility where needed, it encourages public behaviour shifts broadly and systematically.

EPR also provides dynamic incentives, that is, incentives for continual improvement. Some regulatory mechanisms have threshold effects, i.e. once compliance has been achieved there is no incentive to do better. In contrast, EPR instruments, such as charges on pollution or subsidies for green activities, provide ongoing incentives to improve. In effect, there is an ongoing opportunity to further reduce payments, or to further benefit from subsidies, by continually improving environmental performance.

EPR is not, of course, a magic bullet. It is one of a range of strategies that include emission limits, bans, "best available technology" requirements, and production standards. EPR instruments are often best employed along with informational and educational efforts, so as to raise awareness of the rationale behind the new policies. In some cases, EPR may not be the best strategy; for example, in the case of toxins with no known safe level, an outright ban will be preferable. Regulatory strategies share the feature that they apply to everyone, in contrast to voluntary measures, which rely on individual action (and have limited effectiveness).[20]

1.2.3 Diversification of Public Revenue Streams

Importantly for local governments, EPR can help to diversify public revenue streams.

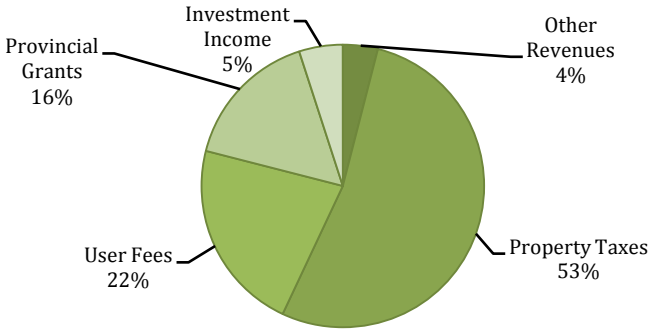
While other orders of government often have many important revenue streams (e.g., personal income tax, corporate income tax, resource royalties, "sin" taxes, fuel taxes, equalization and other transfer payments), thus providing a balance of revenues, local governments often find themselves deriving much or even the majority of their revenues

[19] Federation of Canadian Municipalities, "Policy Statement on Environmental Issues and Sustainable Development" (March 2008) p.12 http://www.fcm.ca//CMFiles/enviro1SIK-3262008-8664.pdf accessed December 5, 2008.

[20] A study by the OECD concluded that voluntary measures are ineffective at achieving environmental goals, as well as being economically inefficient. Organization for Economic Cooperation and Development, "Voluntary Approaches for Environmental Policy" (OECD, 2003) http://www.oecd.org/document/53/0,3343,en_2649_34281_35154357_1_1_1_1,00.html accessed November 10, 2008.

from property taxes. Local governments in Canada are far more dependent on property taxes than American cities. [21]

Figure: Local government revenues in Canada (2005)



Source of data: E. Slack, "What Roles, Responsibilities, and Financial Tools for Local Governments?"[22]

There are some significant problems with property taxes. Fiscally, revenues from property taxes don't automatically increase when the local economy and incomes grow (they are "inelastic" in the jargon of municipal finance). Thus, while demands for infrastructure grow, the revenues don't necessarily follow suit. Property taxes are collected in a very visible way – with a bill at the end of the year, instead of through source reductions on paycheques. So if local governments need higher revenues, they have to increase property taxes in a very public way. In contrast, other orders of government can experience income tax revenue growth even while cutting tax rates.

"[I]t is the lack of diversity in the local tax regime that is the key issue. The matter cannot be reduced to simply selecting a 'better' tax than the 'lousy' property tax. Rather, the challenge is to create a more diverse basket of tax tools and tax revenue-sharing options that might work better."

- C. Vander Ploeg, "Problematic Property Tax: Why the Property Tax Fails to Measure Up and What to Do About It"[23]

Property taxes are also considered by many to be regressive. This is particularly a problem toward the low end of the income scale where regressive impact matters most. Because taxes are levied against the value of a property regardless of the income of the owner, they can create financial problems for those with low incomes or fixed incomes (e.g., seniors).

[21] C. Vander Ploeg, "Big City Revenue Sources: A Canada-U.S. Comparison of Municipal Tax Tools and Revenue Levers" (Canada West Foundation, September 2002) http://www.cwf.ca/V2/files/report.pdf accessed November 30, 2008.
[22] E. Slack, "What Roles, Responsibilities, and Financial Tools for Local Governments? A Presentation to the Round Table on Renewing Local Governance in Atlantic Canada" (University of Toronto, June 9, 2008) p.18 http://www.afmnb.org/images/mme_enid_slack_presentation_june_9_2008.pdf accessed December 7, 2008.
[23] C. Vander Ploeg, "Problematic Property Tax: Why the Property Tax Fails to Measure Up and What to Do About It" (Canada West Foundation, November 26, 2008) p.57 http://www.cwf.ca/V2/files/PROBLEMATIC.pdf accessed November 29, 2008.

The Federation of Canadian Municipalities notes that the poorest quintile (20%) of Canadians pays 9.62% of their income on property taxes, while the richest quintile pays 1.95%. In contrast, the poorest quintile paid just 4.1% of their income on income taxes, while the richest quintile paid 25.8%.[24]

Furthermore, property taxes can create economic inefficiencies. Goods and services normally cost money, which tends to restrain demand for them. Because property taxes subsidize the costs of infrastructure, like roads, they remove the normal restraints on demand for that infrastructure. They also allow people and firms from outside an area to free-ride on that infrastructure, which is funded by local residents.[25] By reducing or removing costs of use, both for residents and outsiders, property taxes encourage excessive road use and sprawl.[26]

"The property tax is inherently flawed as a source of funding for cities' growing needs."

- TD Bank Financial Group[27]

"Unlike municipalities in other countries, Canadian communities have limited access to revenues other than property taxes and user fees. In addition to being fundamentally inequitable, property taxes encourage urban sprawl as a way to increase revenue, which erodes environmental sustainability."

- Federation of Canadian Municipalities[28]

[24] Federation of Canadian Municipalities, "Property Taxes at the Breaking Point" http://www.fcm.ca//CMFiles/sproperty1PGQ-4172008-311.pdf accessed December 5, 2008.
[25] For these and other disadvantages, see C. G. Vander Ploeg "Delivering the Goods: Infrastructure and Alternative Revenue Sources for the City of Edmonton" (Canada West Foundation, June 2008) pp. 16-17 http://www.cwf.ca/V2/files/Delivering_goods.pdf accessed November 15, 2008.
[26] E. Slack, "The Impact of Municipal Finance and Governance on Urban Sprawl" (Institute on Municipal Finance and Governance, Munk Centre, University of Toronto, September 25, 2006) http://www.utoronto.ca/mcis/imfg/pdf/international%20joint%20commission%20paper%20Sep%2006.pdf accessed November 29, 2008.
[27] TD Bank Financial Group, "A choice between investing in Canada's cities or disinvesting in Canada's future." (TD Bank, 2002), cited in Federation of Canadian Municipalities, "Property Taxes at the Breaking Point" http://www.fcm.ca//CMFiles/sproperty1PGQ-4172008-311.pdf accessed December 5, 2008.
[28] Federation of Canadian Municipalities, "Policy Statement on Municipal Finance and Intergovernmental Arrangements" (March 2008) p.31 http://www.fcm.ca//CMFiles/munfin1SIR-3262008-3325.pdf accessed December 5, 2008.

1.3 Competitiveness and Regional Governance

Implementing some EPR policy changes may become challenging due to competition among local governments. For instance, one local government could wish to implement a shift away from property taxes and toward road tolling. Interest groups may oppose such changes and claim that they would drive business away from a community.

This claim could turn out to be groundless; after all, the reduction in property taxes could attract more business and residents than a road toll drives away. Or, perhaps more likely, the effect of both could be minimal to non-existent. After all, taxation is "only one aspect of economic competitiveness."[29] Other factors include access to inputs and consumer markets, as well as the things that taxes buy, such as: an educated workforce; availability of public health care (that employers don't need to pay for); and affordable child care that increases the supply of workers.

In some cases, claims of tax competition are meaningful, and this could deter a local government from implementing EPR instruments that it otherwise would desire. One solution here is some form of regional governance arrangement.[30] Indeed, "[i]t is difficult, if not impossible, to address what are largely region-wide issues without some form of regional governance structure."[31]
Regional governance structures can take many forms ranging from one-off agreements reached among the local governments, to legislation or a commitment by the provincial or territorial government to resolve intractable issues, to a regional decision-making body that complements or replaces local governments. The best form will vary from case to case, depending on local circumstances.[32]

Regional governments and governance structures can do more than just mitigate problems of tax competition. They can also take the lead by setting higher environmental goals, creating new policies, and finding synergies in their regions. While it may take time to build a regional consensus around comprehensive EPR initiatives, starting the process and building a sense of shared effort can be an important step.

---

[29] C. G. Vander Ploeg "Delivering the Goods: Infrastructure and Alternative Revenue Sources for the City of Edmonton" (Canada West Foundation, June 2008) p. 48 http://www.cwf.ca/V2/files/Delivering_goods.pdf accessed November 15, 2008.
[30] For a detailed discussion of regional governance issues see also D. Brown, G. Hoover, A. Howatson, J. Schulman, "Canada's Transportation Infrastructure Challenge: Strengthening the Foundations - Distance Based Pricing" (Conference Board of Canada, January 2005) ch.5 http://sso.conferenceboard.ca/e-Library/temp/BoardWise2LFILICHCFAFAFMFDDNCMLOIP2008121105730/686-04%20Transportation%20Infrastructure%20RPT.pdf accessed December 10, 2008.
[31] E. Slack, "The Impact of Municipal Finance and Governance on Urban Sprawl" (Institute on Municipal Finance and Governance, Munk Centre, University of Toronto, September 25, 2006) p.2 http://www.utoronto.ca/mcis/imfg/pdf/international%20joint%20commission%20paper%20Sep%2006.pdf accessed November 29, 2008.
[32] E. Slack, "The Impact of Municipal Finance and Governance on Urban Sprawl" (Institute on Municipal Finance and Governance, Munk Centre, University of Toronto, September 25, 2006) pp.14-15 http://www.utoronto.ca/mcis/imfg/pdf/international%20joint%20commission%20paper%20Sep%2006.pdf accessed November 29, 2008.

1.4 User Pay Systems

For many, the expression "user pay" raises bad memories of governments cutting funding and imposing regressive user fees on essential public services, such as health care. This is a valid concern. However, there are some essential difference between those cuts and EPR-style user pay systems.

First off, user pay systems are not all regressive, and good EPR design is progressive.

Second, EPR does not propose user fees on things that are socially desirable, or in economics jargon, things that have mainly positive externalities. Quite the opposite: EPR proposes subsidies of such things. Things like public education and health care, good transit systems, and pollution reduction all have social benefits, and need to be boosted, not cut.[33]

Finally, and perhaps most importantly, the motivations are different. Unlike the spending cuts of the 1990s, EPR is not motivated by a desire to "shrink government." Instead it is motivated by a desire to better the environment. Motivation matters; it is the guiding force behind the selection of policies and the design of instruments – the DNA of policy change.

A commonly heard objection to user pay systems is that they can be regressive. Replacing progressive taxes with regressive user pay, the argument goes, would hurt low income people. After all, why should conservation happen at the expense of the very people who can least afford to pay?

This is worth exploring, as it can be a significant political barrier to adopting user pay systems. It's not just low income people who object to user pay systems; fair-minded middle income and high income people often strongly resist user pay.

And it is certainly true that some user pay systems are regressive. A good example would be flat utility fees – fees that are a uniform amount for every household, regardless of income or value of the house, or consumption of the services. Generally speaking higher-income Canadians have a larger ecological footprint.[34] And it stands to reason that expensive houses on large properties generally tend to use more electricity and water, and create more waste and sewage. So, by and large, the well-off end up consuming more, while still paying the same as lower income people; a flat fee on any of these utilities generally would be regressive. Indeed, a flat fee that bore no relationship to consumption could be worse than no fee at all.

---

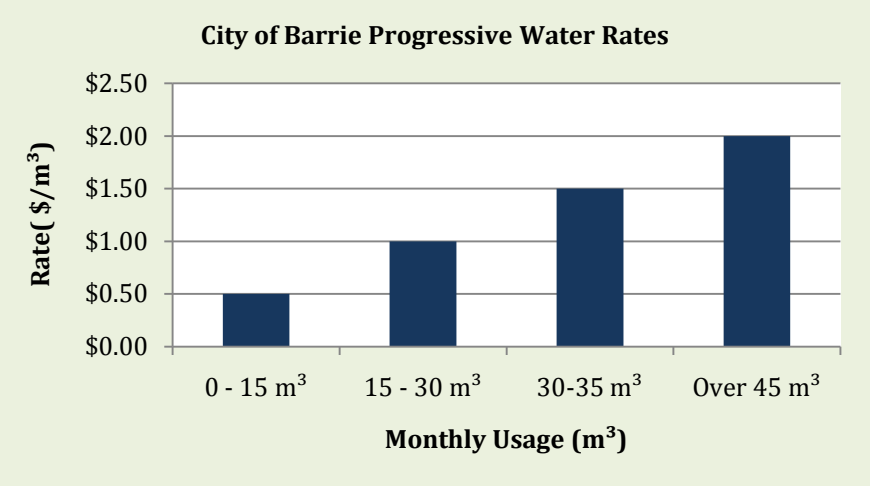
[33] E.g., see City of Calgary, "User Fees and Subsidies Council Policy" Principle 5 - General Tax-supported Subsidies Principle (April 2008) http://www.calgary.ca/docgallery/bu/cityclerks/council_policies/fcs013.pdf accessed December 14, 2008.

[34] Mackenzie, Messinger and Smith, "Size Matters: Canada's Ecological Footprint by Income" (CCPA, June 2008) http://www.policyalternatives.ca/documents/National_Office_Pubs/2008/Size_Matters_Canadas_Ecological_Footprint_By_Income.pdf accessed November 7, 2008.

Fortunately, user pay structures don't need to be regressive. A user pay system can be designed to both recognize the amount used and be progressive.[35] For example, a water rate can be based on the amount used, with a progressive pricing structure built-in such as a simple "lifeline" structure, i.e. one that provides a basic monthly amount at a low price (or for free) and provides further quantities at higher prices. The basic amount could be the monthly average needed for health and basic sanitation – drinking, cooking, and reasonable washing and cleaning. Volumes above the basic level (e.g., amounts used for several baths or long showers per day, watering large lawns, washing cars and filling swimming pools) would be priced at a higher rate.

It appears that the advantages of such a system are being recognized. "Increasing block billing" is being adopted rapidly across Canada. Between 1991 and 2004, this rate structure rose from 3% to 23% of residential water ratepayers – the fastest increase of any structure.[36] And more sophisticated progressive structures could be applied, for instance one that ramps up rates at several thresholds of consumption, like an income tax (see figure below) or even continuously as consumption rises.

Figure: Example of a progressive user fee structure



Source of data: City of Barrie[37]

[35] For an example of adjusting instrument design to reduce regressivity, see Gilbert E. Metcalf, "A Green Employment Tax Swap: Using A Carbon Tax To Finance Payroll Tax Relief" (WRI, June 2007) http://pdf.wri.org/Brookings-WRI_GreenTaxSwap.pdf accessed November 28, 2008. See also the discussion at Victoria Transportation Policy Institute, "Equity Evaluation: Perspectives and Methods for Evaluating the Equity Impacts of Transportation Decisions" http://www.vtpi.org/tdm/tdm13.htm accessed December 13, 2008.

[36] Environment Canada, "2008 Municipal Water Pricing Report" http://www.ec.gc.ca/WATER/en/manage/data/e_MUP2008.htm accessed November 30, 2008.

[37] City of Barrie, "2007 Residential Water and Sewer Rates" http://www.barrie.ca/Content.cfm?C=4530&SC=1&SCM=0&MI=598&L1M=4 accessed December 5, 2008. This page also contains general water rates.

Thus it is possible to reduce or eliminate regressive impacts of use-based pricing. Indeed, in areas where use-based pricing already exists, regressive flat-rate tariffs can be replaced with progressive pricing systems.

Another concern remains. Even a progressive utility rate could be considered unfair in that it encourages low income people to reduce consumption while providing relatively little incentive to the wealthy to reduce theirs. So most or all consumption reductions come at the low end. This is likely to be the case if the pricing structure is one that charges a fairly low rate at high levels of consumption.

However, this need not be the case. And if conservation is a goal of the user pay system, then it stands to reason that the price should be set at a level that encourages behavioural change for everyone – not just for low income people. At the middle and higher end of the consumption spectrum, the price should be set at a level that actually makes a significant impact on consumption (at least as much impact as is made at the bottom, and perhaps more in light of the reasons for the use). Given the prevalence of metering, it should be possible for municipal utilities to determine the actual consumption effects of pricing changes, and to adjust the various price brackets until they see consumption drop significantly at all levels on the consumption spectrum.

A second remaining concern is that some households, including low income households, have large family sizes, or for other reasons may need to use more than the average household. While no rate structure is going to be perfect (including status quo structures) it should be possible to design mechanisms to address this concern (e.g., special rates for qualified users, such as low income families and other groups sharing space[38]).

Another concern is what happens to people who have not paid their utility bills. Are they at risk of having their utilities cut off under a user pay system? Utility cut offs can be dangerous to human health and safety. However, there is nothing about a user pay system that would require disconnection for non-payment. The utility could simply access the same debt collection mechanisms as other creditors use, such as debt collection agencies, small claims court, income garnishment. When a user pay system is adopted, essential utilities should be prohibited from cutting off services to people qualified as having low income.[39]

It is possible that a pricing system cannot be designed in a way that is progressive. In such cases, it is possible to increase the fees and recycle some of the revenues back to lower income people through tax reductions or benefit payments. In contrast to utility subsidization, cash distribution allows recipients to choose how to allocate their wealth.

[38] Society is changing; nuclear families are not the only type (they never were), and multi-family and multi-person living arrangements are becoming more common. Furthermore, such arrangements tend to have a lower environmental impact on a per person basis than separation into stand-alone dwelling. EPR tools need to be designed to be flexible and adapt as society changes.

[39] City of Calgary, "User Fees and Subsidies Council Policy" Principle 6: Tax-supported Subsidies for Individuals Principle (April 2008) http://www.calgary.ca/docgallery/bu/cityclerks/council_policies/fcs013.pdf accessed December 14, 2008.

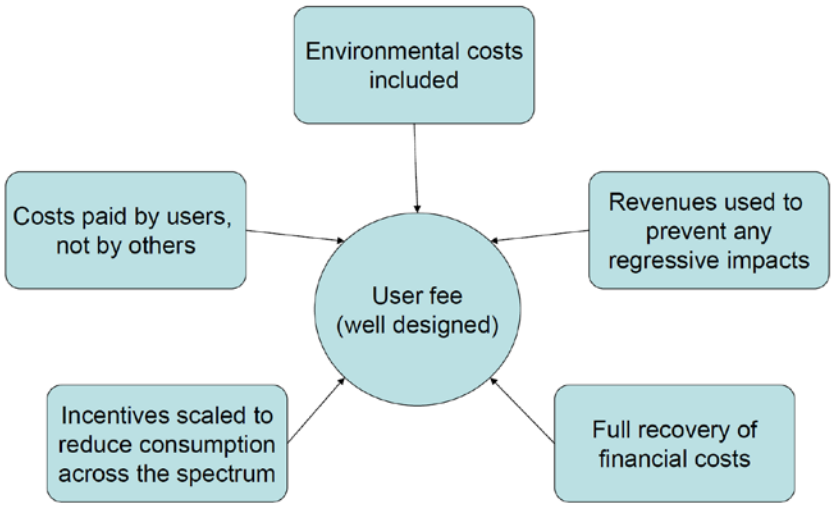
And it recognizes the fact that the poor are poor not because they pay for utilities, but because they don't have enough money.

Finally it must be borne in mind that progressive user pay systems aren't replacing "free" systems. They are replacing systems that users already pay for, but in different and often regressive ways. We already pay for services, whether by charges on a utility bill or by often-regressive property taxes (which are passed along to renters and consumers). What progressive user pay systems do is replace regressive payment systems with ones that are more progressive.

> "[T]he current system… amounts to a 'subsidy for larger households that use a lot of electricity and water and generate more waste' …. These subsidies redistribute income, but in a manner that provides more support for the rich than for the poor."
>
> -- Mintz and Roberts, "Running on Empty"[40]

User fees can be designed to be regressive, neutral or progressive. There is nothing about user fees that makes them inherently regressive. Ensuring they are not regressive is just a matter of smart design. The figure below summarizes the key components of a well-designed, progressive user fee system.

Figure: A well-designed user fee



[40] J. Mintz and T. Roberts, "Running on Empty: A Proposal to Improve City Finances" (C.D. Howe Institute, February 2006) p.11 http://www.cdhowe.org/pdf/commentary_226.pdf December 10, 2008.

User pay systems

"User pay quickly dispels the myth that public goods and services are somehow "free." It ensures that an increase in demand for services and infrastructure will be covered by those who want those services, and are also willing to pay for them. User fees create a fiscal dynamic where people use only what they need as opposed to what they want. User pay forces people to internalize the costs of their behaviour and modify that behaviour to avoid wasting their own money.

"This is no small consideration. The municipal infrastructure challenge is not just a question about supply — how to get the necessary financing and funding to increase the amount of infrastructure investment. It is also very much a question about demand. Funding infrastructure through taxation when user fees could be employed artificially increases the demand for infrastructure beyond what people are actually willing to pay. User fees keep the demand for infrastructure in check, while taxation causes demand to rise.

"Tax-based funding is the equivalent of the "all-you-can-eat buffet." For the same low price, everybody can eat as much as they want. As a result, the "all-you-can-eat buffet" goes through a lot of food. User fees are the equivalent of the "pay-by-the-ounce" salad bar. Here, everybody eats according to what they are willing to pay. Less food is consumed. Similarly, taxation is like sharing the total restaurant bill equally. This encourages some individuals to eat more because those who eat less will be paying for a portion of their bigger meal. A user fee approach sees everybody paying their own part of the bill according to what they ordered. The total bill is lower because everybody eats according to what they are willing to pay. The examples are not just economic theory. In Canada, studies show that the average household use of water by those who pay a flat amount can be up to 70% higher compared to households that pay according to usage.

"How infrastructure is financed, funded, and delivered carries huge implications. If general taxation is the funding choice, then heavy users of the infrastructure will arguably be subsidized by light users. This has the effect of artificially increasing demand, and is a recurring problem with transportation infrastructure. Because of the way it is funded, governments will never be able to provide enough capacity. It also leads to higher total costs. However, if individual drivers can be charged for the full range of costs associated with building and maintaining roadways, they would drive less and choose more efficient alternatives, whether that be car pooling, cycling, or public transit. The demand for roadway infrastructure would diminish."

- C. Vander Ploeg "Delivering the Goods"[41]

[41] C. G. Vander Ploeg "Delivering the Goods: Infrastructure and Alternative Revenue Sources for the City of Edmonton" (Canada West Foundation, June 2008) p. 38 http://www.cwf.ca/V2/files/Delivering_goods.pdf accessed November 15, 2008.

Part 2: Environmental Pricing Reform Instruments for Local Government Leaders

2.1 Key Environmental Pricing Reform Tools

2.1.1. Subsidies reform

Removing harmful subsidies

While many price adjustments are possible in a range of areas, the best first step can be simply removing environmentally harmful subsidies.[42] This can result in low-cost[43] improvements to the environment, reductions of economic distortions, and improved financial positions for governments.

A familiar example of a harmful subsidy at other levels of government include that of fossil fuel development.[44] While such subsidies do increase jobs in that sector, they do so at the cost of other sectors, the environment, and public finances. Furthermore, the fossil fuel sector creates very few jobs per dollar invested, compared to every other sector in Canada.[45]

At the local government level, the largest environmentally harmful subsidies are those for road construction and maintenance. In Canada, roads are usually provided without charge for their use. Taxes on property subsidize the road costs. Reducing or removing these subsidies (and requiring road use to pay for itself) would reduce excessive road use and emissions, as well as demand for new road construction.

Developing helpful subsidies

Governments have often used subsidies to achieve a variety of goals, such as increasing employment or developing new industries. And such subsidies can be particularly useful during economic slowdowns.

Subsidies can also be used to serve environmental goals. For example, new or increased subsidies for transit system improvements can improve quality of service, and thereby

[42] See United Nations Environment Program - Division of Technology, Industry and Economics - Economics and Trade Branch, "Subsidies" http://www.unep.ch/etb/areas/subsidies.php accessed November 28, 2008.
[43] OECD Environment Directorate, "2008 OECD Environmental Outlook - How much will it cost to address today's key environmental problems?" (OECD March 5, 2008) http://www.oecd.org/document/22/0,3343,en_2649_34305_40221270_1_1_1_1,00.html accessed November 28, 2008.
[44] See, for example, A. Taylor, M. Bramley, M. Winfield, "Government Spending on Canada's Oil and Gas Industry: Undermining Canada's Kyoto Commitment" (Pembina Institute, Jan. 2005) http://pubs.pembina.org/reports/GovtSpendingOnOilAndGasFullReport.pdf accessed November 28, 2008.
[45] The Oil and Gas Extraction industry creates 2.35 person-years employment per million dollars of investment. The only industry that creates fewer is Petroleum and Coal Products Manufacturing, at 2.31 person-years. All 57 remaining industries create more jobs, the mean average being 11.9 person-years. All figures refer to direct and indirect, and not induced, impacts. Statistics Canada, "Canada's National Input-Output Multipliers, 2005" Table 2.5.

boost ridership. A single city bus can remove up to 40 cars from traffic, thus providing a substantial benefit to remaining car drivers.

When considering adding a helpful subsidy or removing a harmful one, it is a good time to consider other subsidies; a local government may wish to finance new subsidies by using the revenues saved from old ones.

2.1.2 Land/Property Development Tools

2.1.2.1 Land value taxation

Property taxes are composed of two elements: a tax on the value of land, and a tax on the value of buildings or other "improvements" on the land. Taxing improvements on land is a disincentive to improving that land. An adjustment to property taxes to reduce the proportion of the tax on the improvements and increase the proportion of the tax on land (land value taxation, also termed site-value taxation[46] or split-rate taxation), would increase the incentive to improve land, repair derelict buildings, and increase density of development, thus helping to rein in sprawl.

Land value taxation does make land at the community core more costly to own, as it tends to have higher values than land at the fringes. This could reduce the incentive to invest in the downtown cores. However, costs of ownership end up being incorporated into the market price for property, thereby offsetting the higher costs. Moreover, a shift toward land value taxation increases the costs of holding land and encourages the highest and best use of the land, while reducing the costs of improvements, thus providing a double incentive to denser core development.

In 1979-80, the city of Pittsburgh enacted a land value tax shift. It raised the tax rate on land to over five times the rate on structures. It then experienced a "dramatic increase in building activity, far in excess of other cities in the region," particularly in the commercial sector. While demand for commercial space was an important factor in this growth, the evidence suggests that the shift toward land taxation was important in enabling the city to avoid rate increases in other taxes that could have impeded development.[47]

[46] E. Slack, "Municipal Finance and the Pattern of Urban Growth" (CD Howe Institute, February 2002) pp.17-18 http://www.cdhowe.org/pdf/commentary_160.pdf accessed December 6, 2008

[47] W. Oates and R. Schwab, "The Impact of Urban Land Taxation: The Pittsburgh Experience" (November 1996) p.i http://www.lincolninst.edu/subcenters/valuation_taxation/dl/oates_schwab.pdf accessed December 6, 2008. For a review of Harrisburg's LVT initiative, see R. Tomalty, "Innovative Infrastructure Financing Mechanisms for Smart Growth" (SmartGrowth BC, Dec 2007) pp. 27 and 80&ff http://www.smartgrowth.bc.ca/Portals/0/Downloads/sgbc-infrastructure-report-web.pdf accessed December 1, 2008.

> Land value taxation "provides city officials with a tax instrument that generates revenues, but has no damaging side effects on the urban economy. In this way, it allows the city to avoid reliance on other taxes that can undermine urban development."
>
> - Oates and Schwab, "The Impact of Urban Land Taxation: The Pittsburgh Experience"[48]

> "Another way to promote compact metropolitan development would be to … adopt split-rate property taxation. Under this type of property tax reform, a city can lower the tax rate on buildings and other capital improvements and still maintain the level of municipal services by raising the tax rate on land values. The Commonwealth of Pennsylvania has had this form of property taxation since 1913. Pittsburgh and Scranton have been the pioneers in tax reform, but by 1995, some 15 cities in the Keystone State had adopted two-rate property taxation."
>
> - R. England, "Property Tax Reform and Smart Growth"[49]

2.1.2.2 Density-based property taxation

In some communities and provinces, multi-family dwellings are taxed at a higher rate than detached single-family houses.[50] This provides a financial incentive for homebuyers to purchase detached houses, and thus an incentive for developers to build sprawl rather than efficient, compact communities.[51]

These incentives can and should be reversed. Generally speaking, the environmental footprint of denser residential development is smaller; for example there are fewer (or no) lawns to water, the energy required for heating and cooling is reduced because of a smaller outside surface area per unit living space, waste and recycling collection is facilitated by being concentrated in one location.

Property classes and tax rates could be reformed to take into account the relative financial and environmental costs of higher and lower density development, and provide incentives to develop denser communities.

2.1.2.3 Improvement Districts

Improvement districts (also known as business improvement, special improvement, or special assessment districts) are a mechanism for capturing increases in property values

---

[48] W. Oates and R. Schwab, "The Impact of Urban Land Taxation: The Pittsburgh Experience" (November 1996) p.22 http://www.lincolninst.edu/subcenters/valuation_taxation/dl/oates_schwab.pdf accessed December 6, 2008.
[49] R. England "Property Tax Reform and Smart Growth: Connecting Some of the Dots" (Lincoln Institute on Land Policy, Land Lines: January 2004, Volume 16, Number 1) http://www.lincolninst.edu/pubs/PubDetail.aspx?pubid=871 accessed November 30, 2008.
[50] J. Donnan, "Economic Implications and Consequences of Population Growth, Land Use Trends and Urban Sprawl in Southern Ontario" (Environmental Commissioner of Ontario, June 2008) p.62 http://www.eco.on.ca/eng/index.php/pubs/eco-publications/population-growth-land-use-trends-and-urban-sprawl-in-southern-ontario.php accessed November 30, 2008.
[51] E. Slack, "Municipal Finance and the Pattern of Urban Growth" (CD Howe Institute, February 2002) p.12 http://www.cdhowe.org/pdf/commentary_160.pdf accessed December 6, 2008.

that will accrue to a location by virtue of public investments in the area.[52] For example, when a transit system is installed along a corridor, property values along that corridor will increase and provide windfall (unearned) profits to property owners in the area. A local government making such an improvement can recover the benefits of the improvement by levying a special assessment on the district.

Local improvement districts can be created to finance building transit systems, parks, greenways (cycling and walking paths), brownfield remediation, and other improvements that will provide environmental benefits.

2.1.2.4 Tax Increment Financing

Tax increment financing (TIF) is a mechanism for funding improvements in a specific district, such as site remediation and improved services. TIFs are not yet in widespread use in Canada, although Manitoba and more recently Alberta have allowed for forms of TIF to be used.[53] In Ontario, where there is no TIF-enabling legislation other than the City of Toronto Act, some municipalities are setting up "deemed" TIFs – grants equivalent to what a TIF would have provided.[54] TIFs work by: defining a TIF district, which is usually a community core area that would benefit from revitalization and brownfield development; freezing the tax revenues taken into general revenues from that district at a "base level"; and allocating future increases in revenues from that district specifically to revitalization in that district.

> "Tax Increment Financing Districts (TIFs) were first introduced in the U.S. in 1952 in California. They are now used by cities in approximately 48 states. TIFs are used to revitalize blighted urban areas, stimulate downtown revitalization, encourage brownfield remediation, or to finance major infrastructure. TIFs are designed to stimulate private investment in urban cores of cities and to assist these areas to compete with outlying suburban and exurban areas. In the U.S. context, TIF districts have become the focal point for tax incentives and for grants from senior levels of government."
>
> - E. Slack, "Approaches to Growth"[55]

[52] A discussion of improvement district finance, and a link to an Improvement District Manual, is available at BC Ministry of Community Development, Local Government Department, "Improvement District Finance" http://www.cd.gov.bc.ca/lgd/improvement/improvement_finance.htm accessed December 6, 2008.
[53] E. Slack "Approaches to Growth" (City of Calgary, January 2006) p.13 http://www.calgary.ca/docgallery/BU/planning/pdf/plan_it/approaches_to_growth_report.pdf accessed November 30, 2008.
[54] Ontario Ministry of Municipal Affairs and Housing, "Municipal Financial Tools for Planning and Development" (Summer 2000) p.9 http://www.mah.gov.on.ca/Asset1173.aspx; and "Tax Increment-Based Financing" (Spring 2003) http://www.mah.gov.on.ca/Page1301.aspx, both accessed December 4, 2008.
[55] E. Slack "Approaches to Growth" (City of Calgary, January 2006) p.12 http://www.calgary.ca/docgallery/BU/planning/pdf/plan_it/approaches_to_growth_report.pdf accessed November 30, 2008.

2.1.2.5 Development Cost Charge (DCC) improvements

Development cost charges (DCCs, also called development charges, development levies, and off-site levies) are levied on new projects to help fund the costs (e.g., road and utility) that new developments impose on local governments. These costs can vary significantly depending on the location of the development and the distance to the nearest point of connection to existing roads and utilities. Typically, development within a serviced community will cost less than development on a greenfield site where no services exist.

Nonetheless, many local governments have traditionally charged a flat DCC rate based on number of residential units or square footage, irrespective of location or costs of servicing.[56] Clearly this would not reflect financial costs, let alone the environmental costs, of a development, and would encourage economically inefficient development decisions.[57]

Some provinces even restrict the extent of cost recovery by local governments, or what they can levy DCCs in respect of.[58] Some restrictions on the ability of local governments to cover costs of development appear to be reaching the boiling point. In Halton Region, taxpayers apparently spend $32 million per year to cover costs that development fees don't cover. In 2008, the Regional Council passed a resolution that would "allow the region to refuse sewer and water pipe connections to as many as 40,000 new homes in north Oakville and Milton, until financing arrangements are acceptable."[59]

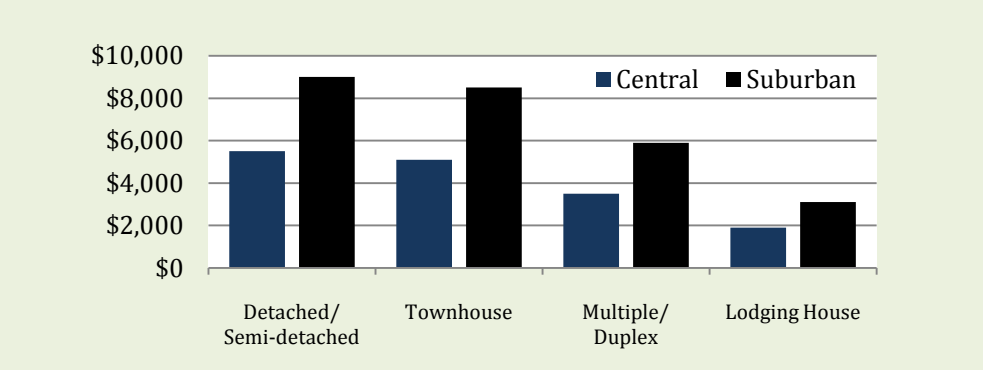
"Efficient land use requires that developments that impose higher infrastructure costs on the city pay higher charges than developments that impose lower costs."[60] DCCs could be set on the basis of full financial cost recovery, and also internalization of environmental costs. DCCs can be rebated or eliminated for desirable developments, such as downtown densification or infill.[61]

The City of Kitchener has set lower development cost charges for central neighbourhoods, as compared to suburban neighbourhoods. Suburban charges are 66% higher across all building types.[62]

---

[56] Coriolis Consulting, "Do Development Cost Charges Encourage Smart Growth and High Performance Building Design? An Evaluation of Development Cost Charge Practices in British Columbia" (WCEL, September 2003) http://www.wcel.org/wcelpub/2003/14083.pdf accessed November 29, 2008.
[57] E. Slack, "Municipal Finance and the Pattern of Urban Growth" (CD Howe Institute, February 2002) p.16 http://www.cdhowe.org/pdf/commentary_160.pdf accessed December 6, 2008.
[58] E. Slack, "The Impact of Municipal Finance and Governance on Urban Sprawl" (Institute on Municipal Finance and Governance, Munk Centre, University of Toronto, September 25, 2006) p.4 http://www.utoronto.ca/mcis/imfg/pdf/international%20joint%20commission%20paper%20Sep%2006.pdf accessed November 29, 2008.
[59] P. Gombu, "Showdown looms in Halton" (Toronto Star, November 20, 2008) http://www.thestar.com/news/gta/article/540177 accessed December 6, 2008.
[60] E. Slack, "Municipal Finance and the Pattern of Urban Growth" (CD Howe Institute, February 2002) p.16 http://www.cdhowe.org/pdf/commentary_160.pdf accessed December 6, 2008.
[61] R. Tomalty, "Innovative Infrastructure Financing Mechanisms for Smart Growth" (SmartGrowth BC, Dec 2007) p.8 and pp.23 and 63&ff. for a case study of Kelowna's DCC changes http://www.smartgrowth.bc.ca/Portals/0/Downloads/sgbc-infrastructure-report-web.pdf accessed December 1, 2008.
[62] Charges set out at : City of Kitchener, "Development Charge Rates" http://www.kitchener.ca/city_hall/departments/devtech_services/building/app_fees.htm#rates accessed December 9, 2008.

Figure: Kitchener residential DCC rates by type and location



Data source: City of Kitchener[63]

2.1.2.6 Density Bonuses

Bylaws normally restrict the amount of floor space that a developer can include in a development. Density bonusing raises that amount in exchange for the development achieving a community goal, such as provision of recreational facilities or affordable housing.[64]

Density bonusing can be used to obtain any number of environmental objectives, including.

- provision of active transportation (walking and cycling) infrastructure;
- compliance with green building standards;
- increased development near transit stops; and
- protection of streams and ecologically sensitive areas.

2.1.1.7 Exemptions, reductions and rebates on property taxes and development fees and charges

In addition to collecting property taxes, local governments collect a range of fees and charges relating to the development process. These taxes, fees and charges, can provide a disincentive to desirable developments, such as infill community densification or brownfield development.

Property taxes, as well as fees and charges for "official plan and zoning bylaw amendments, consents to sever, plans of subdivision, development agreements, site plan applications and agreements, minor variance applications, demolition permits, building permits, parkland

[63] Charges set out at : City of Kitchener, "Development Charge Rates" http://www.kitchener.ca/city_hall/departments/devtech_services/building/app_fees.htm#rates accessed December 9, 2008.
[64] See explanation and model bylaws at Government of British Columbia Office of Housing and Construction Standards, "Density Bonus Provisions of the Municipal Act - A Guide and Model Bylaw" (March 1997) http://www.housing.gov.bc.ca/housing/BONUSDN/ accessed November 29, 2008.

dedication and exemption from development charges" [65] could be reduced, waived or rebated for a variety of purposes. These can include:

- encourage densification of residential development
- encourage building to green standards
- protect streams and environmentally sensitive areas
- encourage brownfield development.[66]

2.1.3 Vehicle-Specific Tools

2.1.3.1 Fuel Taxes

Crude oil and fuels are globally traded commodities, and so global price variability is mainly due to differing fuel tax rates (see figure below). Fuel prices in North America are among the lowest in the developed world.[67]

Clearly there is significant "tax room" to increase fuel taxes. Some cities in Canada – e.g., Vancouver, Victoria, Edmonton, Calgary, Montreal – have the ability to piggyback fuel taxes on the provincial fuel tax.[68]

One Canadian study estimated that a six cent per litre local fuel tax in Toronto would raise the equivalent of a 4.7-6.6% property tax increase.[69] Another study estimated a slightly higher return ratio - that a one cent tax would raise the equivalent of a 1-3% of local property taxes.[70]

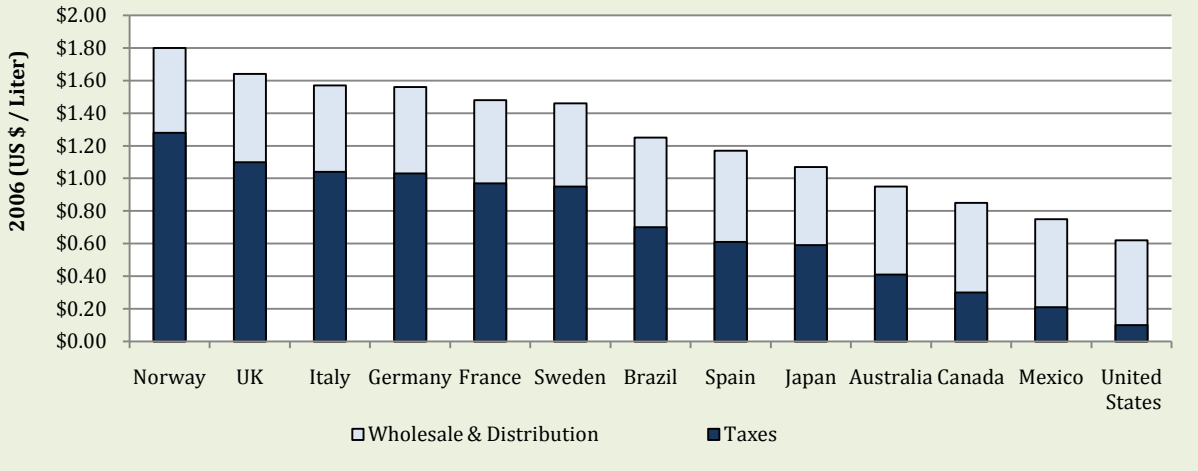
If a local government fuel tax were instituted on an equivalent ad-valorem (% of price) basis, rather than a per-litre basis, it would have greater "elasticity" and the potential of

[65] Ontario Ministry of Municipal Affairs and Housing, "Municipal Financial Tools for Planning and Development" (Summer 2000) p.12 http://www.mah.gov.on.ca/Asset1173.aspx accessed December 4, 2008.
[66] For an example of municipal authority in this area, see Government of British Columbia Ministry of Community Services, "Revitalization Tax Exemptions - A Primer on the Provisions in the Community Charter" (January 2008) http://www.cd.gov.bc.ca/lgd/gov_structure/library/community_charter_revital_tax_exemptions.pdf accessed November 29, 2008.
[67] For current comparative prices, see AA Roadwatch http://www.aaroadwatch.ie/eupetrolprices/default.asp.
[68] E. Slack and R. Bird, "Cities in Canadian Federalism" (Policy Options, December 2007 - January 2008) p.73 http://www.utoronto.ca/mcis/imfg/pdf/CitiesinCdnFederalism.pdf;
E. Slack, "Municipal Finance and the Pattern of Urban Growth" (CD Howe Institute, February 2002) pp.21-22 http://www.cdhowe.org/pdf/commentary_160.pdf accessed December 6, 2008. The Federal government has promised to permanently share fuel tax revenue with local governments, though without an escalator such a share will be eroded by inflation: Federation of Canadian Municipalities, "Backgrounder: The Federal Gas Tax Fund: Protecting a Critical Investment" http://www.fcm.ca/CMFiles/sgastax1PDD-4172008-5101.pdf accessed December 8, 2008.
[69] H. Kitchen, "Financing Public Transit and Transportation
in the Greater Toronto Area and Hamilton: Future Initiatives" (Residential and Civil Construction Alliance of Ontario, January 2008) pp.24-25.
http://www.rccao.com/news/files/RCCAOFinancingPublicTransitReport01-2008LR.pdf accessed November 30, 2008.
[70] H. Kitchen and E. Slack, "Special Study: New Finance Options for Municipal Governments" (Canadian Tax Journal, 2003 vol. 51, no 6) p. 2247 http://www.ctf.ca/pdf/03ctjpdf/2003ctj6-kitchen.pdf accessed December 10, 2008.

growing significantly as fuel prices rose, much in the same way that income taxes do when incomes grow.

> "Not only could the application of a municipal fuel tax raise the price paid by road users to a level that is more in line with the cost (production costs plus environmental costs) of providing roads, it would permit cities to have funds for improving and reconstructing their local roads and provide them with funds for public transit if they so desire. It would also lead to a more efficient use of local roads."
>
> - H. Kitchen, "Financing Public Transit and Transportation in the Greater Toronto Area and Hamilton: Future Initiatives"[71]

Figure: Vehicle Fuel Retail Prices



Source: Victoria Transportation Policy Institute, "Fuel Taxes: Increasing Fuel Taxes and Fees[72]

[71] H. Kitchen, "Financing Public Transit and Transportation in the Greater Toronto Area and Hamilton: Future Initiatives" (Residential and Civil Construction Alliance of Ontario, January 2008) p.23. http://www.rccao.com/news/files/RCCAOFinancingPublicTransitReport01-2008LR.pdf accessed November 30, 2008.

[72] Victoria Transportation Policy Institute, "Fuel Taxes: Increasing Fuel Taxes and Fees" http://www.vtpi.org/tdm/tdm17.htm accessed December 13, 2008.

2.1.3.2 Parking Pricing

Parking pricing recognizes the fact that "there is no free lunch." Parking cars on land means that the land cannot be used for other purposes. This costs money for the owner of the land, whether that is the public or a private party. This can also cost the taxpayer, when governments fail to tax, or collect taxes on, employer-provided "free" parking.

Parking pricing generates revenues to cover these costs, and it can also encourage greater use of transit and active transportation (biking and walking), reduce automobile traffic, reduce the amount of land required for parking, and make the use of some parking spaces more efficient.

> "[M]unicipalities – through their control of parking meters and public parking lots – could raise revenues from parking. This would achieve some of the same effects (i.e. a substitution away from private automobiles) as road tolls on highways. Pushing up the cost of road use well above that of public transit would also ease the pressure on cash-strapped cities to subsidize this latter form of transportation"
>
> - TD Bank, "The Greater Toronto Area (GTA): Canada's Primary Economic Locomotive in Need of Repairs"[73]

There are many ways to implement parking pricing.[74] Some of the most familiar are by installing parking meters, or by requiring permits for parking on certain streets. However, parking costs can also be recovered in other ways:

- *A tax on parking spaces.*[75] Stores, shopping malls, business parks, industrial parks and other facilities impose costs on the transportation system and thus on the public purse. A tax on parking spaces provided at those facilities can help recover this cost. At the same time, it can help to "level the playing field" between, for example, downtown retailers and those in suburban shopping malls.

- *Higher penalties for illegal parking*. Increasing fines can help control illegal parking, and increase local government revenues.

---

[73] D. Drummond, D. Burleton, G. Manning and K. Richardson, "The Greater Toronto Area (GTA): Canada's Primary Economic Locomotive in Need of Repairs"" (TD Bank Economics, May 22, 2002) p.26 http://www.td.com/economics/special/db0502_gta.pdf accessed November 30, 2008.

[74] See Victoria Transportation Policy Institute, "Online TDM Encyclopedia - Parking Pricing: Direct Charges for Using Parking Facilities" http://www.vtpi.org/tdm/tdm26.htm accessed November 7, 2008.

[75] E.g., Toronto's new power to tax parking spaces, noted at H. Kitchen, "Financing Public Transit and Transportation in the Greater Toronto Area and Hamilton: Future Initiatives" (Residential and Civil Construction Alliance of Ontario, January 2008) p.35 http://www.rccao.com/news/files/RCCAOFinancingPublicTransitReport01-2008LR.pdf; and Vancouver region's parking stall tax, described at Transport Canada's "Urban Transportation Showcase Program: TransLink Parking Tax" http://www.tc.gc.ca/Programs/Environment/utsp/translinkParkingTax.htm and at R. Tomalty, "Innovative Infrastructure Financing Mechanisms for Smart Growth" (SmartGrowth BC, Dec 2007) pp. 25 and 73&ff http://www.smartgrowth.bc.ca/Portals/0/Downloads/sgbc-infrastructure-report-web.pdf all accessed November 7, 2008.

- *Land value taxation*. Reducing the proportion of tax on buildings and increasing the proportion on the land value itself would encourage higher uses of land used for parking, thereby reducing parking supply and raising the price.

2.1.3.3 Road Pricing

"A user fee that can have an important impact on the extent to which there is compact development or sprawl is a road toll. Road tolls discourage the use of automobiles and reduce the demand for commuting. At the same time they could increase the demand for compact development."[76]

The true costs of road transport include the full financial costs of both building the road and maintaining it. They also include a host of other "externalized" costs, ranging from air pollution and CO_2 emissions, to the costs of traffic congestion, to health care costs from vehicle crashes. Such externalities create distortions that harm the economy.

Economists, environmentalists and others recommend that the full costs of road transport be paid by road users.[77] It appears that the interest in road pricing is growing.[78]

> "There is… real potential for municipalities to introduce user fees in the area of non-public transportation, especially given the emergence of new, efficient technologies to collect tolls. Charging the full cost of travel for highways and roads in the downtown core would be a win-win situation for society and the government's bottom line."
>
> - TD Bank, "The Greater Toronto Area (GTA): Canada's Primary Economic Locomotive in Need of Repairs"[79]

The true costs of road transport can be covered by road pricing – charging motorists for driving on a particular road. There are several forms of road pricing:[80]

---

[76] E. Slack, "The Impact of Municipal Finance and Governance on Urban Sprawl" (Institute on Municipal Finance and Governance, Munk Centre, University of Toronto, September 25, 2006) p.11 http://www.utoronto.ca/mcis/imfg/pdf/international%20joint%20commission%20paper%20Sep%2006.pdf accessed November 29, 2008.

[77] E.g., H. Kitchen, "Financing Public Transit and Transportation in the Greater Toronto Area and Hamilton: Future Initiatives" (Residential and Civil Construction Alliance of Ontario, January 2008) http://www.rccao.com/news/files/RCCAOFinancingPublicTransitReport01-2008LR.pdf accessed November 30, 2008; Maddison, Johansson, Pearce, *The True Costs of Road Transport* (Earthscan, 1996) http://books.google.ca/books?id=dOyCDB-lztEC.

[78] Eg. Ontario's first road pricing forum took place in November 2008: Residential & Civil Construction Alliance of Ontario, "Transportation Futures: Ontario's Inaugural Road Pricing Forum" http://www.rccao.com/events/presentations.asp accessed December 14, 2008.

[79] D. Drummond, D. Burleton, G. Manning and K. Richardson, "The Greater Toronto Area (GTA): Canada's Primary Economic Locomotive in Need of Repairs"" (TD Bank Economics, May 22, 2002) p.26 http://www.td.com/economics/special/db0502_gta.pdf accessed November 30, 2008.

[80] These points are based on Victoria Transport Policy Institute, "Online TDM Encyclopedia, Road Pricing" (updated 22 July 2008) http://www.vtpi.org/tdm/tdm35.htm accessed November 8, 2008, which contains additional material and references. See also F. Nix, "Alternative Road Financing Arrangements: Research conducted for the Canada

Road Tolls
Tolls are a common way to manage demand for road use, and to recover the costs of road use. They can be considered user fees, and revenues are often dedicated to roadway project costs. Road tolls are more equitable and economically efficient than other roadway improvement funding options that cause non-users to help pay for improvements.

Congestion Pricing
Congestion Pricing (also called Value Pricing) refers to variable road tolls - higher prices under congested conditions and lower prices at less congested times and locations - intended to reduce peak-period traffic volumes. Tolls can vary based on a fixed schedule, or they can be dynamic, meaning that rates change depending on the level of congestion that exists at a particular time.

Cordon (Area) Tolls
Cordon tolls are fees paid by motorists to drive in a particular area, usually a city center. Some cordon tolls only apply during peak periods, such as weekdays. This can be done by simply requiring vehicles driven within the area to display a pass, or by tolling at each entrance to the area.

HOT Lanes
High Occupancy Toll (HOT) lanes are like High Occupancy Vehicle (HOV) lanes, but they also allow use by a limited number of low occupancy vehicles if they pay a toll. This allows more vehicles to use HOV lanes while maintaining an incentive for mode shifting, and raises revenue. HOT lanes are often proposed as a compromise between HOV lanes and Road Pricing.[81]

London England's city-core toll system was launched seven years ago and makes for an interesting case study. It was very successful at reducing traffic volume, increasing traffic speeds, encouraging transit use, and raising revenues for transportation improvements. Here are some of the impacts[82] of the system:

- "Traffic entering the original charging zone remains 21 per cent lower than pre-charge levels (70,000 fewer cars a day)

Transportation Act Review" (Transport Canada, March 2001) pp.18-35 http://www.reviewcta-examenltc.gc.ca/CTAReview/CTAReview/english/reports/nix.pdf; and
See also D. Brown, G. Hoover, A. Howatson, J. Schulman, "Canada's Transportation Infrastructure Challenge: Strengthening the Foundations - Distance Based Pricing" (Conference Board of Canada, January 2005) p. 15 http://sso.conferenceboard.ca/e-Library/temp/BoardWise2LFILICHCFAFAFMFDDNCMLOIP2008121105730/686-04%20Transportation%20Infrastructure%20RPT.pdf accessed December 10, 2008.

[81] See discussion at H. Kitchen, "Financing Public Transit and Transportation in the Greater Toronto Area and Hamilton: Future Initiatives" (Residential and Civil Construction Alliance of Ontario, January 2008) pp.40-42 http://www.rccao.com/news/files/RCCAOFinancingPublicTransitReport01-2008LR.pdf accessed November 30, 2008.
See also R. Tomalty, "Innovative Infrastructure Financing Mechanisms for Smart Growth" (SmartGrowth BC, Dec 2007) p.7, and pp. 22 and 53 &ff. for a case study of San Diego's HOT lanes http://www.smartgrowth.bc.ca/Portals/0/Downloads/sgbc-infrastructure-report-web.pdf accessed December 1, 2008.

[82] From Transport for London, "About the Congestion Charge: Benefits" http://www.tfl.gov.uk/roadusers/congestioncharging/6723.aspx accessed December 8, 2008.

- "Traffic entering the Western Extension has fallen by 14 per cent (30,000 fewer cars a day)
- "There has been a six per cent increase in bus passengers during charging hours
- "There has been a 12 per cent increase in cycle journeys into the Western Extension"
- £137m was raised in the financial year 2007/08

Congestion dropped sharply when London's toll was first introduced. Traffic management measures have reduced levels of road space in the tolled zone in order to assist pedestrians and other road users (construction has also reduced road space), but congestion is still no worse than before the toll system was implemented.

Several communities around the world have road pricing programs,[83] with the following impacts:

- increased travel speeds
- reduced traffic volume
- reduced emissions
- revenues raised for local governments.

Canada's use of toll roads lags behind that of other countries (see Table below). Golden and Brender suggest five criteria for determining how effective and appropriate congestion charging would be in Canada:

- Commuting patterns that bring high volumes of people into a dense urban core.
- Public transit infrastructure that can accommodate a large shift from cars to other modes of transport.
- Commuter behaviour that supports a shift in modal choice.
- Business support based on evidence that congestion charging would have a positive or negligible impact on commerce.
- Public attitudes that tolerate congestion charging.[84]

[83] See Transportation Alternatives, "Congestion Pricing: International Examples" http://www.transalt.org/campaigns/congestion/international accessed November 8, 2008; and Victoria Transportation Pricing Institute, ""Road Pricing: Congestion Pricing, Value Pricing, Toll Roads and HOT Lanes" http://www.vtpi.org/tdm/tdm35.htm; H. Kitchen, "Financing Public Transit and Transportation in the Greater Toronto Area and Hamilton: Future Initiatives" (Residential and Civil Construction Alliance of Ontario, January 2008) pp.28-34. http://www.rccao.com/news/files/RCCAOFinancingPublicTransitReport01-2008LR.pdf accessed November 30, 2008

[84] A. Golden and N. Brender, "Sustainable Urban Transportation: A Winning Strategy for Canada" (Conference Board of Canada, May 2007) p.11 http://sso.conferenceboard.ca/e-Library/temp/BoardWise2LFILICHCFAFAFMFDDNCMLOIP200812110574/170-07%20CanadaProject-Sustainable%20Urban%20Transportation_WEB.pdf accessed December 11, 2008.

Table: Toll Roads in Selected Countries

Country	Toll roads (km)	Country	Toll roads (km)
Argentina	9,800	Japan	9,219
Brazil	856	Korea (Republic)	1,880
Canada	344	Malaysia	1,127
Chile	3	Mexico	5,683
France	6,305	South Africa	825
Hungary	57	Spain	2,255
Indonesia	530	United States	7,589
Italy	5,550		

Source: Brown, Hoover, Howatson, Schulman, "Canada's Transportation Infrastructure Challenge"[85]

"Experience with road pricing… is growing around the globe. Research in Canada should begin now on road pricing for heavily congested urban highways and/or downtown areas. The goal should not be to implement schemes that meet the theoretical ideal, but schemes that pass a cost-benefit test, are adaptable to changing circumstances, and will not soon become technologically obsolete."
…
"London's experience, in particular, has encouraged many cities around the world to consider road-pricing schemes of their own. Vancouver has plans to toll bridges. San Francisco has received federal funds to study an area-based congestion-pricing scheme. And several prominent institutions, including the Partnership for New York City (2006) and the Manhattan Institute (Schaller 2006), have called for studies of area-based road pricing for New York City. Some analysts believe that road pricing has gone beyond the tipping point in the United States."

- R. Lindsey, "Congestion Relief: Assessing the Case for Road Tolls in Canada" (C.D. Howe Institute, May 2007)[86]

2.1.3.4 Distance-based Pricing

Motor vehicle owners pay a range of fees that bear little or no relationship to the amount they drive, and thus provide no reward for reduced driving. These fees could be restructured.

For example, instead of a flat vehicle registration and licensing fees, the fees could be based on a price per kilometer travelled per year. Toronto, Vancouver, and large cities in Quebec and in many states in the US can collect vehicle registration fees. However, most cities in Canada currently do not have the authority to do so.[87]

[85] See also D. Brown, G. Hoover, A. Howatson, J. Schulman, "Canada's Transportation Infrastructure Challenge: Strengthening the Foundations - Distance Based Pricing" (Conference Board of Canada, January 2005) p. 15 http://sso.conferenceboard.ca/e-Library/temp/BoardWise2LFILICHCFAFAFMFDDNCMLOIP2008121105730/686-04%20Transportation%20Infrastructure%20RPT.pdf accessed December 10, 2008.
[86] R. Lindsey, "Congestion Relief: Assessing the Case for Road Tolls in Canada" (C.D. Howe Institute, May 2007) p.3-4, 12 http://www.cdhowe.org/pdf/commentary_248.pdf accessed November 30, 2008.
[87] H. Kitchen, "Financing Public Transit and Transportation

Doing so could reduce vehicle travel by an estimated 3% per year.[88] While this may seem small on first blush, it would be the equivalent of taking over half a million vehicles off Canadian roads.[89]

There are other distance-based pricing techniques, for instance relating to vehicle purchase and insurance.[90]

2.1.4 Financial Tools

2.1.4.1 Financing, Funds and Grants

Sometimes what is needed to make an environmental improvement is financing, i.e. money that can be borrowed temporarily to finance a capital investment. Such investments can be made in cleaning up brownfields for further development, boosting energy efficiency in buildings, or improving or extending a transit system. The capital can be made available to private actors or local government departments.

Such funding can take many forms,[91] including:

- conventional loans
- revolving funds (funds that make loans, and when an individual loan is repaid, go on to make further loans with the repaid funds)[92]
- absorbing all or part of the interest costs of a loan (whether by directly paying the interest, or by underwriting the risk of the loan in order to reduce borrowing costs)

A related idea is the establishment of a financing fund that is built up through revenues from EPR instruments. It may be easier for the pubic to support such instruments if they can clearly see that the money is going to be spent on related environmental areas. So for instance, a Safe Water Protection Fund, built up with a share of revenues from progressive

---

in the Greater Toronto Area and Hamilton: Future Initiatives" (Residential and Civil Construction Alliance of Ontario, January 2008) p.37.
http://www.rccao.com/news/files/RCCAOFinancingPublicTransitReport01-2008LR.pdf accessed November 30, 2008.

[88] Victoria Transport Policy Institute, "Online TDM Encyclopedia – Distance-Based Pricing"
http://www.vtpi.org/tdm/tdm10.htm accessed November 29, 2008.

[89] There are 18.5 million light vehicles (cars, pickups, vans, SUVs) registered in Canada: Transport Canada, "Transportation in Canada 2007 - Table RO3: Provincial Light Vehicle Fleet Statistics, 2006"
http://www.tc.gc.ca/pol/en/report/anre2007/add/table-ro3.htm accessed November 30, 2008. 3% of 18.5 million would be 550,000 vehicles.

[90] Victoria Transport Policy Institute, "Online TDM Encyclopedia – Distance-Based Pricing"
http://www.vtpi.org/tdm/tdm10.htm accessed November 29, 2008. See also D. Brown, G. Hoover, A. Howatson, J. Schulman, "Canada's Transportation Infrastructure Challenge: Strengthening the Foundations - Distance Based Pricing" (Conference Board of Canada, January 2005) p. 14 http://sso.conferenceboard.ca/e-Library/temp/BoardWise2LFILICHCFAFAFMFDDNCMLOIP2008121105730/686-04%20Transportation%20Infrastructure%20RPT.pdf accessed December 10, 2008.

[91] Ontario Ministry of Municipal Affairs and Housing, "Municipal Financial Tools for Planning and Development" (Summer 2000) p.8 http://www.mah.gov.on.ca/Asset1173.aspx accessed December 4, 2008.

[92] E.g., City of Edmonton, Energy Management Revolving Fund
http://www.gov.edmonton.ab.ca/environmental/policies/energy-management-revolving-fu.aspx.

water charging, could provide grants to improve sewage treatment and protection of wetlands and water supplies. Such "earmarking" of revenues is not optimal economically; it can distort spending decisions. However, we live in a "second-best" world, economically, and public acceptability is sometimes the determining factor in policy change.

"In 1995, the City of Edmonton created a revolving fund aimed at energy retrofits of City facilities. This fund initially started at $1 million dollars and was increased in 1999 to $5 million. In 2002, City Council approved an increase in the fund limit of up to $30 million, to be financed from the Alberta Municipal Finance Corporation (AMFC)
"The $30 million fund is set aside for energy efficiency projects such as upgrades to lighting, heating, cooling and ventilation systems and envelope upgrades. The amount borrowed against the fund for these projects is repaid over a period of up to eight years (up to 10 years by exception) out of the utility savings making this money available for other energy projects."

- City of Edmonton, "Energy Management Revolving Fund" [93]

2.1.4.2 Unit Pricing of Utilities

Unit pricing refers to charging for utilities – e.g., water, sewage services, electricity, waste removal – based on the amount used.

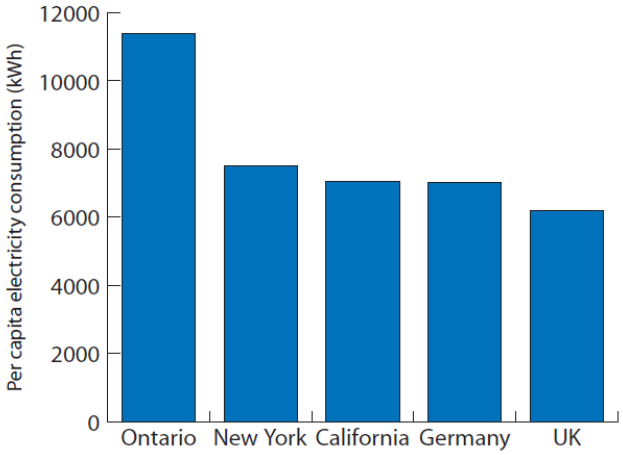
Unit pricing can be very effective at reducing consumption; since 1991, residential water consumption has been consistently "70 to 80% higher nationally where under flat rates than under volume-based rates."[94]

For many utilities, unit pricing is already widespread, such as in electricity consumption, and increasingly water consumption. Water metering is gradually rising across Canada and is now in over 63% of households.[95]

However, simply moving to unit pricing is not enough. Even when unit pricing is used, prices often do not reflect the full financial costs of providing the utility, let alone the environmental costs.[96] One report suggested that Ontario's high per capita electricity consumption (see figure below) was at least partly attributable to decades of electricity subsidies shaping its economy toward higher consumption levels. [97] That report further recommended eliminating a variety of electricity subsidies, and returning the revenues to consumers with a simple tax rebate.[98]

[93] http://www.gov.edmonton.ab.ca/environmental/policies/energy-management-revolving-fu.aspx.
[94] Environment Canada, "2008 Municipal Water Pricing Report"
http://www.ec.gc.ca/WATER/en/manage/data/e_MUP2008.htm accessed November 30, 2008.
[95] Environment Canada, "2008 Municipal Water Pricing Report"
http://www.ec.gc.ca/WATER/en/manage/data/e_MUP2008.htm accessed November 30, 2008.
[96] D. Dewees, "Pricing Municipal Services: The Economics of User Fees" (Canadian Tax Journal, (2002 vol. 50, no 2) pp.595.
[97] J. Gibbons, "Tax Shift: Eliminating Subsidies and Moving to Full Cost
Electricity Pricing" (OCAA, March 3 2008) http://www.cleanairalliance.org/files/active/0/taxshift.pdf accessed November 30, 2008.
[98] J. Gibbons, "Tax Shift: Eliminating Subsidies and Moving to Full Cost
Electricity Pricing" (OCAA, March 3 2008) http://www.cleanairalliance.org/files/active/0/taxshift.pdf accessed November 30, 2008.

Figure - Per capita electricity consumption in 2004



There are several ways to structure unit pricing. For some utilities, it is easy. For example, a progressive schedule of rates can be developed in order to protect low income people and ensure that all users have an incentive to reduce consumption.

Although sewage is not metered for households, it is for businesses in some communities, and often sewage volume corresponds well with in-house water consumption.

For waste removal, pay-as-you-throw systems are increasingly being established for residential waste collection services across North America.[99] And commercial waste can be billed for at the landfill through tipping fees.

> "[Local governments] can and should charge an appropriate tipping fee for any landfill that they operate. That tipping fee should cover operating costs, amortized capital costs, amortized closure and post-closure costs, and the opportunity cost of space in the landfill, as well as the value of any environmental harm caused by disposal."
>
> - D. Dewees, "Pricing Municipal Services: The Economics of User Fees"[100]

[99] For a discussion of pay-as-you-throw program design options, see M. Kelleher, J. Robins, J. Dixie, "Taking Out the Trash: How To Allocate the Costs Fairly" (C.D. Howe Institute, July 2005) p.8-15 See also D. Dewees, "Pricing Municipal Services: The Economics of User Fees" (Canadian Tax Journal, (2002 vol. 50, no 2) pp.590-94. http://www.cdhowe.org/pdf/commentary_213.pdf accessed December 10, 2008.

[100] D. Dewees, "Pricing Municipal Services: The Economics of User Fees" (Canadian Tax Journal, (2002 vol. 50, no 2) p. 594.

2.1.4.3 Fines

The law is the law. In order to be effective, laws needs to be enforced consistently, and penalties need to be high enough to deter violations. Laws are made because there are important policy objectives underlying them. Failure to enforce the law undermines respect for the law, and can encourage further violations.[101]

To achieve better compliance with the goals of the law, local governments can invest in more law enforcement capacity. Doing so can improve safety and quality of life for residents, lower local government costs in other areas, and increase revenues from fines. For example, in 2007 the City of Edmonton derived $38.6 million in revenues from fines, while spending less than a third of that - $12.4 million - on bylaw enforcement.[102] Raising the levels of fines can achieve the same outcomes at even lower costs (if there is adequate enforcement).

The primary motivation behind law enforcement and fine levels should be achieving the policy goals underlying the law (e.g., public health or safety). So, for example, law enforcement should be used to curtail any illegal dumping or burning of garbage that arises if waste removal and tipping fees are increased. In this way, the incentives for waste reduction are made effective rather than avoided.

However, the net revenues received from fines will help to diversify local government revenue streams.[103]

While there are other laws and bylaws that do result in fines when convictions are entered, a relatively large base is in motor vehicle violations – moving violations and parking violations. For example, installing fixed photo radar cameras in areas where speeding is a serious problem can help reduce the number of collisions and their staggering costs,[104] as well as reducing emissions. Mobile photo radar cameras can supplement installed cameras, and reduce speeding when and where needed (e.g., construction zones). One

[101] City of Calgary, "Broken Windows Theory" http://www.calgary.ca/portal/server.pt/gateway/PTARGS_0_0_784_203_0_43/http%3B/content.calgary.ca/CCA/City+Hall/Business+Units/Animal+and+Bylaw+Services/Bylaw+Services/New+or+Updated+Bylaws/Community+Standards/Broken+Windows+Theory/Broken+Windows+Theory.htm accessed December 10, 2008.
[102] City of Edmonton, "2007 Financial Results" (May 2007) p.4 http://www.edmonton.ca/city_government/documents/2007-Financial-Results.pdf accessed December 9, 2008.
[103] It is important, of course, to track down who receives the fines. Bylaw fines are payable to local governments. For traffic moving violations, it is not always so clear cut. In Edmonton, for instance, the province keeps some of the fine and the City receives the majority of the fine for photo radar offences: Edmonton Office of the City Auditor, Cash Handling Review Photo Radar (May 3, 2005) p.1 http://www.gov.edmonton.ab.ca/city_government/documents/CityGov/04135Photo_Radar_CashHandling.pdf accessed December 10, 2008.
[104] Average social costs of damage-only collisions are $8,000, of injury collisions are $82,000, and of fatality collisions are $15.7 million: K. Vodden, D. Smith, F. Eaton, D. Mayhew, "Analysis and Estimation of the Social Cost of Motor Vehicle Collisions in Ontario" (Transport Canada, August 2007) p.i http://www.tc.gc.ca/roadsafety/tp/tp14800/pdf/TP14800E.pdf accessed December 7, 2008.

study found that with every 1000 photo radar fines, four to five fewer accidents occurred.[105]

Similarly, traffic light cameras can be installed to photograph vehicles as they run red lights, thus providing a cost-effective deterrent to a dangerous activity.

Parking and other by-law enforcement should be invested in. It can be expected that such an investment would not only help achieve the policy goals, but also boost revenues – above the costs of the investment (i.e. create net revenues). At some point, added investment might result in diminishing returns on the revenues, to the point of reaching zero net revenue for marginal additional investments (i.e. the next dollar spent raises only one dollar of revenues). However, investment can proceed beyond this point if needed in order to achieve the policy goals underlying the by-law.

2.1.4.4 Special Fees, Levies, Charges and Taxes

A wide variety of stand-alone charges and taxes can be levied in order to encourage environmental improvements. For instance, by charging for emissions of pollutants into their sewer systems, local governments can provide an incentive to clean up industrial processes. Similarly, pay-as-you-throw systems and landfill tipping fees can be employed to recover the costs of waste collection, transfers, transportation and dumping, as well as reducing the financial environmental costs of long-term waste management.

A "special tax on greenfield development or on converting farmland to non-agriculture uses"[106] can provide an incentive to brownfield redevelopment and densification.

The main advantage of such charges and taxes is that they can be targeted and precise in their application, thereby reducing the environmental harm at the least cost. A local government council policy on charges and taxes (and subsidies) can help to guide such policies so that they achieve environmental objectives in a cost effective and progressive manner.[107]

With stand-alone charges and taxes (and subsidies) there is really no limit to where EPR can be used to protect and enhance the environment. The only issue is ensuring that the provincial and territorial governments have legislation enabling local governments to act.

[105] L. MacPherson, "Case for photo radar stronger than you'd think" (Saskatoon Star Phoenix, November 27, 2008) http://www.canada.com/saskatoonstarphoenix/news/third_page/story.html?id=1dfa0ad9-4db1-4359-b2f8-286c69c7bd99 accessed December 5, 2008.
[106] Victoria Transportation Policy Institute, "Online TDM Encyclopedia: Smart Tax Policies" http://www.vtpi.org/tdm/tdm95.htm#_Toc120587091 accessed December 6, 2008.
[107] E.g., City of Calgary, "User Fees and Subsidies Council Policy" (April 2008) http://www.calgary.ca/docgallery/bu/cityclerks/council_policies/fcs013.pdf accessed December 14, 2008.

2.1.5 Local Government Powers

2.1.5.1 Expanding Local Government Powers

Many of the EPR instruments described in this document are already within the power of local governments to implement. However, some are not; it depends on instrument desired and the jurisdiction.

The powers of local governments vary across the provinces and territories. Unlike the other levels of government, local governments have no independent status in Canada's constitution; they are creatures of the provincial and territorial governments. Thus their powers are found in provincial and territorial statutes, rather than in the constitution.

Most local governments' powers are found in statutes of general application governing local governments, such as Ontario's Municipal Act, 2001,[108] Alberta's Municipal Government Act,[109] and BC's Local Government Act.[110] Some local governments are subject to special statutes, such as the Vancouver Charter[111] or the City of Winnipeg Charter. [112] Hundreds of additional statutes and regulations provide further powers to local governments.[113] These statutes, in scores to hundreds of sections, each provide, shape and limit local government powers over property taxation, fees and levies, and other matters. [114]

In recent years, the courts have considered the powers of local governments to protect the environment. A key case was the 2001 Supreme Court of Canada decision upholding the pesticide bylaw of the town of Hudson, Quebec. In reviewing that case and others, the Ontario Court of Appeal (Ontario's highest court) concluded that, in the absence of express legislation to the contrary: "the jurisprudence from the Supreme Court [of Canada] is clear that municipal powers, including general welfare powers, are to be interpreted broadly and

[108] S.O. 2001, c. 25 http://www.canlii.org/on/laws/sta/2001c.25/20080821/whole.html. For a useful guide to this substantial Act, see Ontario Ministry of Municipal Affairs and Housing, "Municipal Act e-guide" http://www.mah.gov.on.ca/Page250.aspx.
[109] R.S.A. 2000, c. M-26 http://www.canlii.org/ab/laws/sta/m-26/20080818/whole.html.
[110] [RSBC 1996] Chapter 323 http://www.qp.gov.bc.ca/statreg/stat/l/96323_00.htm.
[111] [SBC 1953] Chapter 55 http://www.qp.gov.bc.ca/statreg/stat/V/vanch_00.htm.
[112] [SBC 1953] Chapter 55 http://www.qp.gov.bc.ca/statreg/stat/V/vanch_00.htm.
[113] D. Lidstone, "Assessment of the Municipal Acts of the Provinces and Territories" (Federation of Canadian Municipalities, April 20, 2004) s.1.3 "Constitution" http://www.fcm.ca/english/View.asp?mp=532&x=806 accessed December 11, 2008.
[114] For a discussion of the primary revenue-raising powers in individual local government statutes, see D. Lidstone, "Assessment of the Municipal Acts of the Provinces and Territories" (Federation of Canadian Municipalities, April 20, 2004) s.2.7 "Delegation of Adequate Financial Resources", and particularly ss. 2.7.3 - 2.7.16 http://www.fcm.ca/english/View.asp?mp=532&x=806 accessed December 11, 2008. For revenue powers of selected cities in Canada and beyond see Chief Administrative Officer, City of Toronto, "Comparison of powers and revenue sources of selected cities" (June, 2000, updated October 2001) http://www.canadascities.ca/caoreport_062000.htm#5 and http://www.toronto.ca/ourcity/citycharterrep1.pdf accessed December 13, 2008.

generously within their context and statutory limits, to achieve the legitimate interests of the municipality and its inhabitants."[115]
In a subsequent case on an unrelated matter, the Supreme Court of Canada confirmed the broad interpretation of local government powers:

"A broad and purposive approach to the interpretation of municipal legislation reflects the true nature of modern municipalities which require greater flexibility in fulfilling their statutory purposes and is consistent with the Court's approach to statutory interpretation generally."[116]

So, it seems that where a local government action or bylaw is challenged in court, the court is required to interpret the local government power generously. This said, the power to tax is interpreted strictly by the courts. Thus many EPR instruments need to have a firm base in provincial legislation.

It has been widely noted in this document and elsewhere that local governments in Canada are quite restricted in their range of powers to tax and otherwise raise revenues.[117] The Federation of Canadian Municipalities has called upon provincial and territorial governments to pass legislation providing "adequate powers and financial and legal resources to ensure good local government and services, to meet existing and future community needs."[118]

Furthermore, Canadians recognize that local governments need access to a wider range of revenue sources. A recent public opinion poll showed that 80% of Canadians believe that "municipal governments need to have greater access to other means of generating revenues".[119]

> "[T]he problem for municipalities is not just inadequate revenues, it is inadequate revenue tools. Canada's municipalities are overwhelmingly dependent on the property tax, a form of taxation widely recognized as regressive and unresponsive to economic growth. Unlike their counterparts in the United States and many other parts of the world, Canada's cities and communities do not have access to revenues that grow with the economy…"
>
> - Federation of Canadian Municipalities, "Pre-budget Submission, 2008"[120]

[115] Croplife Canada v. Toronto (City), (2005), 75 O.R. (3d) 357 (2005), 2005 CanLII 15709 (On C.A.) http://www.canlii.org/en/on/onca/doc/2005/2005canlii15709/2005canlii15709.html accessed December 8, 2008.
[116] United Taxi Drivers' Fellowship of Southern Alberta v. Calgary (City), [2004] 1 S.C.R. 485 2004 SCC 19 (CanLII) http://www.canlii.org/en/ca/scc/doc/2004/2004scc19/2004scc19.html accessed December 10, 2008.
[117] E.g., E. Slack and R. Bird, "Cities in Canadian Federalism" (Policy Options, December 2007 - January 2008) http://www.utoronto.ca/mcis/imfg/pdf/CitiesinCdnFederalism.pdf; C. Vander Ploeg, "Problematic Property Tax: Why the Property Tax Fails to Measure Up and What to Do About It" (Canada West Foundation, November 26, 2008) p.57 http://www.cwf.ca/V2/files/PROBLEMATIC.pdf accessed November 29, 2008.
[118] Federation of Canadian Municipalities, "Policy Statement on Municipal Finance and Intergovernmental Arrangements" (March 2008) p.37 http://www.fcm.ca//CMFiles/munfin1SIR-3262008-3325.pdf accessed December 5, 2008.
[119] Federation of Canadian Municipalities, "Backgrounder - Key Results from the FCM–Strategic Counsel Survey" (FCM, April 15, 2008) http://www.fcm.ca//CMFiles/skeys1PFA-4172008-8817.pdf accessed November 29, 2008. See also " Largest-Ever Survey on Municipal Issues Shows Canadians Want Federal Support for Cities and Communities" (FCM, April 15, 2008) http://www.fcm.ca/english/View.asp?mp=560&x=811.
[120] Federation of Canadian Municipalities, "Pre-budget Submission" (February 12, 2008) p.4 http://www.fcm.ca//CMFiles/feb132008bac1RLJ-2242008-8647.pdf accessed December 9, 2008.

2.1.5.2 Local Government Capacity

It seems the time is right for the provinces and territories to resolve the local government fiscal imbalance. They could help do so by providing larger transfers and grants to local governments, and making those transfers and grants unconditional, regular and permanent. They could also agree to provide a share of various "elastic" revenue streams, like income tax and fuel taxes (as noted above, this is already the case in some provinces). The case for transfers is strongest when there is a need to level the playing field between "have" and "have not" communities, or when duties are imposed on local governments from above.[121]

However, it would not be wise for local governments to stake all their fiscal hopes on the largesse of higher orders of government. For one thing, provincial and territorial leaders have their own priorities, and those might not always correspond to the priorities of communities. Hoped-for grants can disappear overnight when priorities change, and even "permanent" funding commitments can be undone by the funders. Truly, "those who depend on the mercy of princes seldom sleep easily."[122]

The federal government may end up cutting transfers to provinces, especially in a time of deficits and fiscal retrenchment, thus making reliance on grants to local governments even more unwise.[123] Even when grants actually arrive, they are sometimes in the form of cost-sharing agreements, which can lure local government funds away from locally-determined priorities.

Finally, there is a democratic argument to be made that local governments should be raising their own revenues. This is an age of greater demands for transparency and accountability. Both are reduced by transfers between levels of government, and both are increased when the level of government that spends the money also raises it.[124] Local governments would do well to have responsibility for their own revenue streams; the provincial and territorial governments would do well to provide it.

---

[121] R. Bird, "Do 'Fiscal Restraints' Need to be Eased for Toronto?" (Institute on Municipal Finance and Governance, February 21, 2005) pp.6-7 http://www.utoronto.ca/mcis/imfg/pdf/RichardBirdRemarks.pdf accessed December 12, 2008.

[122] E. Slack and R. Bird, "Cities in Canadian Federalism" (Policy Options, December 2007 - January 2008) p.76 http://www.utoronto.ca/mcis/imfg/pdf/CitiesinCdnFederalism.pdf;

[123] H. Schoffield, "Ottawa Balances Books, Barely" (Globe and Mail November 27, 2008) http://www.theglobeandmail.com/servlet/story/RTGAM.20081127.wPOLfiscalupdate1127/BNStory/politics/home?cid=al_gam_mostemail accessed December 6, 2008.

[124] H. Kitchen, "Financing Public Transit and Transportation in the Greater Toronto Area and Hamilton: Future Initiatives" (Residential and Civil Construction Alliance of Ontario, January 2008) pp. 54-55 and generally http://www.rccao.com/news/files/RCCAOFinancingPublicTransitReport01-2008LR.pdf; E. Slack and R. Bird, "Cities in Canadian Federalism" (Policy Options, December 2007 - January 2008) p.76 http://www.utoronto.ca/mcis/imfg/pdf/CitiesinCdnFederalism.pdf; and C. G. Vander Ploeg "Delivering the Goods: Infrastructure and Alternative Revenue Sources for the City of Edmonton" (Canada West Foundation, June 2008) p. 23 http://www.cwf.ca/V2/files/Delivering_goods.pdf all accessed November 15, 2008.

"Political accountability is improved if elected politicians wishing to spend money on public services must raise revenues from the voters who benefit from those services."

- Mintz and Roberts, "Running on Empty"[125]

2.1.5.3 Provincial and Territorial Legislation

As noted earlier, whether a given local government has the power to implement an EPR instrument depends on both the jurisdiction and the instrument. Certainly there are some gaps in the provincial and territorial statutes providing municipal powers.[126]

With scores of potential EPR instruments, and hundreds of statutory provisions setting out municipal powers, it would be impossible to present in this document[127] the changes needed to each general local government statute in every province and territory across Canada, let alone the special local government statutes.

However, there are some high priority, common areas where provincial and territorial statutes across Canada should be strengthened to ensure that the necessary powers exist:

Development cost charges

Provincial and territorial statutes need to provide all local governments the ability to establish DCCs that recover 100% of direct and indirect financial costs of new developments. DCCs also need to incorporate environmental costs.

Transportation pricing

All local governments need the ability to implement the full range of transportation pricing options, including local fuel taxes, road and parking pricing, and distance-based vehicle use charges.

Property tax adjustments

All local governments need the ability to:

- tax differentially across property classes;
- set property classes based on factors that affect the environment, such as sprawl vs. density, and demand for transportation; and
- move toward taxing land value at higher rates than improvements.

[125] J. Mintz and T. Roberts, "Running on Empty: A Proposal to Improve City Finances" (C.D. Howe Institute, February 2006) p.3, and see pp.6, 13-14 http://www.cdhowe.org/pdf/commentary_226.pdf December 10, 2008.

[126] For a brief discussion of examples of municipal taxation powers and limitations in Ontario and the four western provinces, see H. Kitchen and E. Slack, "Special Study: New Finance Options for Municipal Governments" (Canadian Tax Journal, 2003 vol. 51, no 6) pp. 2231-33 http://www.ctf.ca/pdf/03ctjpdf/2003ctj6-kitchen.pdf accessed December 10, 2008

[127] Sustainable Prosperity can provide assistance in determining specific changes needed on a case by case basis.

Improvement financing

All local governments need the ability to finance community liveability improvements, for example through tax increment financing.

"Basket clause:" targeted charges, taxes and subsidies

To address unforeseeable challenges, all local governments need a broadly-defined, general ability to levy charges and taxes on specific products or activities that could harm the environment, and to subsidize products and activities that provide an environmental benefit.

Some provincial legislation (e.g., in Saskatchewan, Alberta and Ontario) "gives municipalities 'natural person' powers and broadly enables municipalities to exercise, in their discretion, a wide range of permissive powers (as opposed to a limited number of express powers, as found in the legislation of other provinces)."[128] Nova Scotia's municipal legislation includes a stated purpose to "give broad authority to councils' respecting bylaw making and to enhance their ability to respond to present and future issues. It … provide[s] for omnibus powers to make bylaws for 'health, well being, safety and protection of persons."[129]

It is a cornerstone principle of Canadian federalism that provincial and territorial governments need the capacity to provide adequate levels of public programs and services across Canada. In light of this, it would be difficult to argue successfully that local governments across the country should not also have fiscal capacity to provide their programs and services regardless of what province or territory they are in.

This suggests that local governments and their national and provincial associations should work with provincial and territorial governments to identify specific changes needed to provide all local governments across Canada with the EPR powers needed to improve their environments, economies, and fiscal balances.

2.2 Matching Environmental Pricing Reform Tools to Community Challenges

Communities and local governments face a wide range of environmental and fiscal issues. This section organizes the discussion of EPR instruments around those issues, in order to facilitate the identification and selection of relevant instrument options.

The EPR options provided under each issue area are fairly general, and there is some overlap between issue areas. Since each community will face its own set of challenges, and

[128] D. Lidstone, "Assessment of the Municipal Acts of the Provinces and Territories" (Federation of Canadian Municipalities, April 20, 2004) s.1.4 "Municipal Acts," and see s.2.6.4 "Corporate Natural Person Powers" http://www.fcm.ca/english/View.asp?mp=532&x=806 accessed December 11, 2008.
[129] D. Lidstone, "Assessment of the Municipal Acts of the Provinces and Territories" (Federation of Canadian Municipalities, April 20, 2004) s.1.4 "Municipal Acts" http://www.fcm.ca/english/View.asp?mp=532&x=806 accessed December 11, 2008.

variations of those challenges, the suggestions would need to be selectively chosen and tailored appropriately to a given community. Furthermore, EPR tools identified in one issue area could also work in another area; this document does not exhaust the creative opportunities for employing EPR instruments.

Nevertheless, the general principles underlying these suggestions are simple, and can be seen from the examples discussed. EPR tools can be used to:

- Increase costs of activities or directions that are less sustainable;
- Decrease costs for more sustainable patterns; and
- Improve the fiscal situation of local governments.

"Marginal cost pricing": economic utopia or second-best world?

In a perfectly functioning market, the price of a good is equal to the marginal cost of producing that good, i.e. the cost to produce a single extra unit of the good. And so economists sometimes discuss using "marginal cost pricing" in relation to EPR. For example, the price a property owner pays for sewer services, in an ideal world, should be exactly the same as the cost to provide sewer services to that particular property (rather than, for example, the average cost of providing services across the community). This way, each owner would face the "correct" cost, and there would be no subsidies.

However, there are no perfect markets; the economists' utopia, true to its name, is "no place". Instead, there plenty of externalities, information shortages, imperfect competition, and other market distortions. The real world is a "second-best" world.[130]

In a second-best world, there is an economic rationale for governments to correct externalities and other distortions, thereby reducing economic inefficiencies and improving social welfare. However it generally will be impossible to do a perfect job. For example, it may be too costly or even impossible to determine the exact marginal costs of servicing an individual property. Likewise, other economic ideals – revenue neutrality, revenue fungibility, and full cost accounting – are likely not fully achievable in a second-best world.

However, the unavailability of perfect policies provides no support for the status quo; such would require an unjustified faith that the status quo is always the best of all possible worlds. And it is best not to let the perfect stand in the way of the good.

Thus policies are developed to provide improvements over the status quo, even if they do not deliver us to economic utopia. So, a variable sewer service charge may be developed based on a simplified model of a community, with assumptions made about size of the community, densities and servicing costs in different locations. The charge can internalize some of the externalities, and provide an incentive to build in established communities rather than at the costly fringes beyond the reaches of current servicing.

[130] For a brief, very accessible explanation of the second-best world, see S. Suranovic, "International Trade Theory and Policy, The Theory of the Second-Best" http://internationalecon.com/Trade/Tch100/T100-2.php accessed December 6, 2008. For an accessible discussion of marginal cost pricing and other factors in EPR-related instrument design, see D. Dewees, "Pricing Municipal Services: The Economics of User Fees" (Canadian Tax Journal, (2002 vol. 50, no 2) pp.588-89 http://www.ctf.ca/pdf/ctjpdf/2002ctj2_dewees.pdf accessed December 10, 2008.
For a more technical discussion relevant to EPR instruments, see G. Metcalfe, "Pollution Taxes in a Second-Best World" (Tufts University, September 2003) http://ase.tufts.edu/econ/papers/200316.pdf accessed December 6, 2008.

2.2.1 Land Use Challenges

"[M]any of the environmental issues we face today… stem, in large part, from the way we have planned and built our cities in the past."[131] The shape and density of a community play a major role in determining the extent of environmental impacts of that community – impacts ranging from habitat consumption to emissions arising from transportation.

Communities around the world are sprawling, but the problem is more severe in North America. The problems associated with sprawl are many, and serious, and include: lost farmland, locked-in automobile dependency; energy waste; health impacts;[132] the hollowing out of community cores; and the costs of servicing suburbs.[133]

These and other problems with sprawl have been identified for decades, and are discussed elsewhere.[134] Rather than reiterating the case for reining in sprawl, this document will focus on solutions.

Smart community growth takes place in areas that add vitality to the community, and that cost local governments less. The cores of communities already feature existing services, like roads and utilities, and tend to have ready access to retail, parks and community centres. Many commentators have noted the need to shift toward higher density, more compact communities that maximize the redevelopment of existing urban sites and reduce expansion into agricultural or natural greenfields.

> "[T]he cost of services tends to increase directly with distance and inversely with the density of development. This means that the most costly areas to service tend to be the outlying, low-density developments."
>
> - City of Calgary, "Approaches to Growth"[135]

---

[131] E. Slack, "Tools to Affect Land Use Decisions, a presentation to the Leading Edge 2006 Conference, Niagara Escarpment Commission" (Institute on Municipal Finance and Governance, University of Toronto, October 5, 2006) p.8 http://www.utoronto.ca/mcis/imfg/pdf/Tools%20to%20Affect%20Land%20Use%20Decisions%20Leading%20Edge%202006.ppt accessed November 28, 2008.

[132] See, for example, Capital Health, "Annual Report of the Medical Officer of Health: How Healthy Are We? Urban Sprawl and Population Health" pp. 44-54 (September 2008) http://www.capitalhealth.ca/NR/rdonlyres/eh7j7btfcjo2qkivt76exw6pkzw4piwk3w4bxhwuq3adbyjczmbx3fvb4xlnte5a6g4ns2lodps4zdo5m6fvidttscf/MOH+Report_2007.pdf; R. Bray, C. Vakil, D. Elliott, "Report on Public Health and Urban Sprawl in Ontario: A Review of the Pertinent Literature" (Ontario College of Family Physicians, January 2005) http://www.ocfp.on.ca/local/files/Communications/Current%20Issues/Urban%20Sprawl-Jan-05.pdf both accessed November 30, 2008.

[133] J, Diamond, "Now is the time to reshape our cities" (Globe and Mail, November 28, 2008) http://www.theglobeandmail.com/servlet/story/LAC.20081127.COSPRAWL27/TPStory/?query=jack+diamond accessed November 28, 2008. For a review of the literature on the higher costs of servicing sprawl, see E. Slack, "Municipal Finance and the Pattern of Urban Growth" (CD Howe Institute, February 2002) pp.4-7 http://www.cdhowe.org/pdf/commentary_160.pdf accessed December 6, 2008.

[134] E.g., Sprawl Guide http://www.plannersweb.com/sprawl/problems.html; Smart Growth Network http://www.smartgrowth.org/about/default.asp; D. Curran, "A Case for Smart Growth" (West Coast Environmental Law, 2003) http://www.wcel.org/wcelpub/2003/14177.pdf accessed November 29, 2008.
National Resource Defence Council, "Paving Paradise: Sprawl and the Environment" http://www.nrdc.org/cities/smartgrowth/rpave.asp both accessed November 28, 2008.

Local governments are beginning to set goals that call for sprawl reduction and community densification. However, a study for CMHC examined six major metropolitan areas across Canada found a distinct lack of progress on restraining sprawl.[136] No doubt this is due, in part, to the current economics of development; "[t]he instruments cities use to raise revenues affect the nature and location of development."[137]

Some sites are ready for infill development; they just require the approvals and investment to make it happen. Other sites can require some cleanup or other rehabilitation. In either event, several different policies can reshape those economics to encourage brownfield and infill development.

> "Some current tax policies favor suburban development over Smart Growth, by favoring lower-density development, single-family over multi-family, new construction over redevelopment of existing buildings, and development outside of urbanized areas over construction within existing urban areas.
>
> "Property taxes can be structured to favor more compact, infill development over sprawl in order to reflect the lower cost of providing public services within existing urban areas, the reduced per capita transport externalities generated in areas with reduced per capita vehicle travel, and strategic planning objectives such as greenspace preservation."
>
> - T. Litman, "Smart Tax Policies"[138]

Below are several policy instruments that can be employed to address land use patterns. They can be used individually. However, sometimes the most potent strategy is to employ several at once, as part of a deliberate policy shift that sends a clear signal about the direction that the community wishes to take. For example, the City of Kitchener, Ontario is fostering an urban renaissance, using a "program of financial incentives for downtown property owners to help stimulate redevelopment, renovation and improvements to buildings in the core." The City sets out program objectives that include recycling "obsolete and underutilized industrial, commercial, residential and institutional buildings, as well as vacant land, into vital enterprises."

---

[135] City of Calgary, "Approaches to Growth" (January 2006) p.9 http://www.calgary.ca/docgallery/BU/planning/pdf/plan_it/approaches_to_growth_report.pdf accessed December 9, 2008.
[136] R. Tomalty and D. Alexander, "Smart Growth in Canada: A Report Card" (Canada Mortgage and Housing Corporation, Dec. 2005) http://www.cmhc-schl.gc.ca/odpub/pdf/64931.pdf accessed November 28, 2008.
[137] E. Slack, "Municipal Finance and the Pattern of Urban Growth" (CD Howe Institute, February 2002) p.1 http://www.cdhowe.org/pdf/commentary_160.pdf accessed December 6, 2008. For a good explanation of how property taxes often encourage sprawl by artificially inflating land conversion values at community margins, pp. 7-13.
[138] T. Litman, "TDM Encyclopedia, Smart Tax Policies" http://www.vtpi.org/tdm/tdm95.htm#_Toc120587091 accessed November 30, 2008.

The incentives the City is employing include:

- "the Façade/Interior Improvement Loan Program;
- "rebates for planning and building permit fees;
- "elimination of City and Regional development charges;
- "the City of Kitchener Tax Rebate program."[139]

Other cities have also adopted a package of instruments, for example Cambridge, London, Thunder Bay and Hamilton/Regional Municipality of Hamilton-Wentworth each have a number of incentives to encourage core area and brownfield development.[140]

[139] City of Kitchener, "Downtown Development: Incentive Programs" http://www.kitchener.ca/city_hall/departments/downtown/dt_incent.html accessed December 9, 2008.
[140] Ontario Ministry of Municipal Affairs and Housing, "Municipal Financial Tools for Planning and Development" (Summer 2000) pp. 14-19 http://www.mah.gov.on.ca/Asset1173.aspx accessed December 4, 2008.

Policy Goals	Examples of Appropriate EPR Tools
1. Promote a higher density, compact urban form and encourage landfill infill and brownfield redevelopment	• A property tax shift away from taxing improvements toward land value taxation could encourage infill and redevelopment of brownfields. • DCC rates could be set lower for land in a town centre as less new infrastructure is needed, existing infrastructure is used more efficiently, and lower environmental costs occur when greenfield development is avoided. • Tax increment financing (TIF) can be used to capture revenue growth within a defined area (e.g., the community core) and apply it to improvements to that area. • A tax rate reduction, or exemption could be offered for a defined period of time on key brownfields to encourage clean up and redevelopment. • Density bonuses and tax incentives could be employed to assist or pay for part of the cleanup of strategically located brownfield sites. • A brownfield remediation fund can be established to facilitate the cleanup of contaminated or derelict building sites. • Higher property tax rates, or a special levy, can be charged on development of "greenfield" sites (agricultural and wild lands). The proceeds could offset property tax exemptions or be placed in the brownfield remediation fund. • Special taxes could be applied to land used for parking, vacant land and derelict properties in community centres in order to encourage infill development • Changes to property classes and tax rates could be used to reduce taxes on higher density uses relative to low density. • Removal of subsidies to land speculation and greenfield development (such as lower tax rates on agricultural or forest land) would help shift development toward established areas. A special tax on converting farmland or wild lands to new uses would achieve the same thing without raising annual tax costs to farmers and forest owners.
2. Increase density at transit nodes and along transit lines	• Density bonuses could be offered for development of sites near transit stops. • A special improvement zone fee could capture windfall increases in land value, while not discouraging the improvements. Fund local improvements with this revenue stream
3. Protect agricultural lands and wildlife areas	• Implement a property tax shift to land value taxation – thereby reducing development pressure on agricultural and wild lands and creating an incentive to (re)develop in town centres. • Improve DCCs to provide full financial cost recovery for all elements of infrastructure, and to also include environmental costs
4. Maintain and increase amounts of parks, greenways and open space for recreation.	• Density bonusing or tax rebates can be offered for provision of parks and open space and recreation facilities

2.2.2 Transportation Challenges

Transportation presents a dual challenge: the environmental and economic impacts of motor vehicle use, and the cost to local governments of roads and other transportation infrastructure.[141]

Impacts of Transportation

Motor vehicle use overwhelmingly dominates transportation in Canada. Over 70% of commuters drive to work alone.[142] In addition to vehicle ownership and operation costs, motor vehicle use creates a wide range of externalized costs, including those from traffic congestion, air pollution, noise pollution, injuries from crashes, greenhouse gas emissions, encouragement of sprawl and chronic illness such as obesity, diabetes and heart disease.

The scale of these costs is enormous. According to Transport Canada studies, the national cost of traffic collisions alone ranges from $15 billion[143] to $25 billion annually.[144] One study put the social costs of collisions at $63 billion annually.[145] Using the lower two estimates, and assuming average vehicle use and ownership,[146] the cost of collisions alone amounts to:

- for a town of 10,000 people, about $4.5-7.5 million per year;
- for a city of 100,000 people, about $45-75 million per year;
- for a city of 1,000,000 people, about $450-750 million per year.

Adding all internal and external costs of transportation, the total cost rises to a range of $216 billion[147] to $370 billion[148] per year. Assuming average vehicle use and ownership, this amounts to the following costs:

---

[141] For a discussion of EPR and transportation generally, see Victoria Transportation Policy Institute, "Evaluating Pricing Strategies: Factors to Consider when Evaluating TDM Strategies that Change Transportation Prices" http://www.vtpi.org/tdm/tdm70.htm; and "Market Reforms: Comprehensive Transportation Market Reforms" http://www.vtpi.org/tdm/tdm29.htm accessed December 13, 2008.
[142] Statistics Canada, "The Daily – April 2, 2008" reporting on the 2006 Census http://www.statscan.ca/Daily/English/080402/d080402a.htm accessed November 9, 2008.
[143] Transport Canada, "Estimates of the Full Cost of Transportation in Canada" (Transport Canada, Aug. 2008) p.13 http://www.tc.gc.ca/pol/en/Report/FullCostInvestigation/Synthesis/report-final.pdf accessed December 4, 2008.
[144] Transport Canada, "Road Safety in Canada: An Overview" (Transport Canada, 2004) http://www.tc.gc.ca/roadsafety/stats/overview/2004/menu.htm accessed November 9, 2008.
[145] K. Vodden, D. Smith, F. Eaton, D. Mayhew, "Analysis and Estimation of the Social Cost of Motor Vehicle Collisions in Ontario" (Transport Canada, August 2007) p.ii http://www.tc.gc.ca/roadsafety/tp/tp14800/pdf/TP14800E.pdf accessed December 7, 2008.
[146] Assumes Canadian population of 33 million.
[147] Transport Canada, "Estimates of the Full Cost of Transportation in Canada" (Transport Canada, Aug. 2008) p.13 http://www.tc.gc.ca/pol/en/Report/FullCostInvestigation/Synthesis/report-final.pdf accessed December 4, 2008.
[148] Total cost ranges from $0.84 to $1.30 per vehicle kilometre: Victoria Transport Policy Institute, "Transportation Cost and Benefit Analysis" (Dec. 2006) at p.6-14 http://www.vtpi.org/tca/. Assuming 286 billion vehicle kilometres travelled per year in Canada (Statistics Canada, "Vehicle-kilometres driven, by vehicle type, Canada, 2003" http://www.statcan.ca/english/research/11-621-MIE/2005028/tables/table1.htm accessed November 9, 2008) this amounts to $240-$370 billion per year. The figure for the United States is $2.3 *trillion* per year. Victoria Transport Policy

- for a town of 10,000 people, about $65 million to $110 million per year;
- for a city of 100,000 people, about $650 million to $1.1 billion per year;
- for a city of 1,000,000 people, about $6.5 billion to $11 billion per year.

Some drivers may think that their fuel taxes cover the costs. Not so. There are two components of the total costs. First are the financial costs – the costs of building and maintaining roads. Second are the externalized costs (e.g., environmental costs). Fuel taxes generally fail to cover even the financial costs of road construction and maintenance, let alone environmental and human health costs of road use.[149]

> "Financial analysts estimate that the current basket of "user pay" taxes for transportation in North America cover only 60%-70% of roadway infrastructure costs, with the remainder coming from general taxation. This has resulted in artificially high demand for roadway infrastructure and has made transit less competitive."
>
> - C. Vander Ploeg "Delivering the Goods"[150]

Governments and other organizations have been trying for years to increase the "mode share" of more sustainable forms of transportation, such as public transit (11% of reported commutes), carpooling (8%), walking (6%) cycling (1%).[151] However, the shares of sustainable transportation have not improved significantly.

Clearly the main policy instruments used to date for this task – largely education and exhortation – are not capable of effecting significant change on their own. A study by the Organization for Economic Cooperation and Development concluded that voluntary measures are ineffective at achieving environmental goals, as well as being economically inefficient.[152] Blending EPR instruments into the mix would help to achieve the goal of shifting mode share.

Institute, "Transportation Cost and Benefit Analysis" (Dec. 2006) at p.6-10 http://www.vtpi.org/tca/ accessed November 9, 2008.

[149] E. Slack, "Municipal Finance and the Pattern of Urban Growth" (CD Howe Institute, February 2002) pp.21-22 http://www.cdhowe.org/pdf/commentary_160.pdf accessed December 6, 2008.

[150] C. G. Vander Ploeg "Delivering the Goods: Infrastructure and Alternative Revenue Sources for the City of Edmonton" (Canada West Foundation, June 2008) p. 31 http://www.cwf.ca/V2/files/Delivering_goods.pdf accessed November 15, 2008.

[151] Statistics Canada, "The Daily – April 2, 2008" reporting on the 2006 Census http://www.statscan.ca/Daily/English/080402/d080402a.htm accessed November 9, 2008. The carpooling figure refers to passengers, not drivers.

[152] Organization for Economic Cooperation and Development, "Voluntary Approaches for Environmental Policy" (OECD, 2003) http://www.oecd.org/document/53/0,3343,en_2649_34281_35154357_1_1_1_1,00.html accessed November 10, 2008.

"[Canadian Greenhouse Gas emissions in the transportation sector rose by about 44 Mt, or 31.7% from 1990 to 2006. Of particular note in this sector is a 24.1 Mt increase – more than 116% – in the emissions from light-duty gasoline trucks, reflecting the growing popularity of sport utility vehicles."

- Environment Canada[153]

Costs to local governments

Local governments are the principal suppliers of roads and other transportation infrastructure and services within their borders.

Transportation is very expensive for local governments. Across Canada, the single largest expense for municipalities is transportation, coming ahead of emergency services, utilities, and health and social services.[154]

While transit users are charged directly each time they use the transit system,[155] there is normally no such charge for using roads.[156] Furthermore, users of the transportation infrastructure and services are not only the local residents and businesses, but also those from outside of the local government area and tax base.

Clearly there are a number of perverse incentives at work here:

- because motor vehicle road use is free, there is excessive use of roadways and excessive traffic, vehicle emissions, collisions (and excessive political demand for more and better roads, which is costly to local governments, and compounds the problem);
- because there are direct charges for transit, there is a disincentive to use it; and
- because those outside of the local government's tax base are not charged for motor vehicle road use, they impose costs on local contributors.

It would be hard to conceive of a worse set of financial incentives for encouraging sustainable forms of transportation and curbing excessive motor vehicle use. Environmental and fiscal common sense suggests reversing each of these incentives:

[153] Environment Canada, "Canada's 2006 Greenhouse Gas Inventory - Long-Term Comparisons by Sector: 1990–2006" http://www.ec.gc.ca/pdb/ghg/inventory_report/2006/som-sum_eng.cfm#s4 accessed November 9, 2008.
[154] Slack, "Municipal Fiscal Imbalance Across Canada" a presentation to the Association of Manitoba Municipalities 8th Annual Convention, Winnipeg, November 30, 2006. (University of Toronto Institute on Municipal Finance and Governance, 2006) at slide 5 http://www.utoronto.ca/mcis/imfg/pdf/Municipal%20Fiscal%20Imbalance%20Nov%2006.ppt accessed November 9, 2008.
[155] Those paying cash fares are charged for use on a per-trip basis, which is the most effective deterrent of use. In the case of monthly transit passes, the charge is on the decision to continue using the system for another month.
[156] Annual compulsory payment of property taxes to support road infrastructure and services is not a per-use decision (nor, actually, a decision at all). And gasoline taxes, apart from not covering even the financial costs of roads, do not come into play at the time of the decision of whether to take a given trip.

- charging for motor vehicle road use in order to reduce congestion, emissions, crashes, and costs to local governments;
- reducing or eliminating charges for transit use in order to encourage use of sustainable transportation; and
- charging road users from outside of the area in order to recover costs to local ratepayers.

"FCM strongly supports urban transit. No other mode of transport can move people as efficiently in our urban centres. As Canadians struggle to cope with environmental problems and congestion on city streets, urban transit systems reduce greenhouse gas emissions while freeing scarce roadway space."

- Federation of Canadian Municipalities[157]

Policy Goals	Examples of Appropriate EPR Tools
1. Shift away from excessive automobile use and toward greater use of more sustainable transit systems	• Tolls can be charged on roads, particularly major arterial roads o leading into an urban area (as a cordon) o leading from one suburban area to another. The tolls can be variable price, according to time of day, in order to reduce peak-hour congestion. New smart payment technologies can facilitate payment without affecting traffic movement or speed. • Fuel taxes can be increased, shared with local governments, and made into ad-valorem taxes (% of price, rather than $ per litre), or inflation-indexed,[158] in order to prevent their erosion by inflation. • Revenues from road use charges can be allocated to subsidize a reliable, fast, convenient and clean transit system throughout a community and region – an example of the benefits principle,[159] given that traffic can be reduced by as many as 40 cars with a single full city bus. • Revenues from road use charges can be allocated to eliminating transit fares in city cores, in order to increase use (as a loss leader), and reduce automobile use and demand for parking in the core. • Transit improvement districts could be created to support

[157] Federation of Canadian Municipalities, "Policy Statement on Municipal Infrastructure and Transportation Policy: Urban Transit" http://www.fcm.ca//CMFiles/muninfra1SIF-3262008-7610.pdf accessed November 9, 2008.
[158] C. G. Vander Ploeg "Delivering the Goods: Infrastructure and Alternative Revenue Sources for the City of Edmonton" (Canada West Foundation, June 2008) p. 31 http://www.cwf.ca/V2/files/Delivering_goods.pdf accessed November 15, 2008.
[159] City of Calgary, "User Fees and Subsidies Council Policy" Principle 1: Benefits Principle (April 2008) http://www.calgary.ca/docgallery/bu/cityclerks/council_policies/fcs013.pdf accessed December 14, 2008.

	development of localized transit infrastructure. • Vander Ploeg suggests a range of other vehicle-specific charges and taxes, e.g., local vehicle registration tax, local car rental tax, local vehicle ownership or "Wheel" tax, special tax on vehicle sales, driver's licence tax, insurance premiums tax, and special property tax on vehicles.[160] Such charges and taxes can be based on , vehicle weight, engine size or other characteristics.
2. Provide a fine-grained network of pedestrian and cyclist routes (on- and off-road) throughout a community and region	• Revenues from road user fees can be allocated partly to subsidize the development of active transportation (walking and cycling) infrastructure. • Establish a greenway development financing fund, which can accept donations from individuals, firms, and foundations. • Create improvement districts to finance bicycle and pedestrian facilities
3. Discourage excessive automobile use, and encourages transit and active transportation, by reducing the excessive availability of cheap or free parking	• Increase parking fees for meters and in parking lots. • Introduce a parking stall levy in order to level the playing field between parking costs in urban cores and suburban malls. • A higher tax rate could be charged on surface parking lots to encourage their redevelopment or relocation either underground or in parkades above active commercial uses at street level. • DCCs could be increased where excessive parking is provided. • A shift toward land value taxation would encourage conversion of parking lots toward higher, better uses in core areas
4. Encourage and provide facilities for low pollution vehicles and car-sharing systems.	• Various incentives can be offered, such as exemptions, rebates or lower rates for developments or buildings that provide for alternative technologies like electric or fuel-cell vehicles. • A reduction in minimum parking stall requirements could be offered for facilities that integrate a car-sharing program.[161]

[160] C. G. Vander Ploeg "Delivering the Goods: Infrastructure and Alternative Revenue Sources for the City of Edmonton" (Canada West Foundation, June 2008) p. 38 http://www.cwf.ca/V2/files/Delivering_goods.pdf accessed November 15, 2008.

[161] E.g., P. Kennedy, "Pooled cars latest twist in condo marketing" (Globe and Mail, April 7, 2003) http://www.theglobeandmail.com/servlet/ArticleNews/TPStory/LAC/20030407/RWALL//?query=car-sharing accessed December 7, 2008.

2.2.3 Waste Management Challenges

Water and liquid waste

In some parts of Canada (e.g., southern Alberta), water is becoming increasingly scarce. A combination of increasing use and climate change impacts reducing supplies, has created a trajectory that will result in commonplace shortages. In other areas, the concern is more about water quality, whether due to toxic contamination or eutrophication through excessive nutrient loading. In addition, managing the water supply and discharge treatment can be quite costly for local governments. EPR instruments can help in all these areas.

Solid waste

Solid waste is a serious problem for some Canadian cities, especially where suitable land for waste disposal is scarce. In some cases, waste ends up being shipped hundreds of kilometres to landfills.

Pay-as-you-throw systems – where residents pay per bag collected – can reduce garbage volume by 8% to 38%, and increase recycling by 6% to 40%.[162]

Of course, concerns can arise when user fees for waste disposal are implemented. For one thing, the impact could be regressive. However, this can be addressed with smart instrument design, such as allowing one "free" bag per week.[163]

Also, there is a risk of illegal dumping to avoid paying fees. This should not be a major problem, as the fees for most systems are less than the cost of a cup of coffee per week. For those who do dump illegally, monitoring, investigation and enforcement are possible.[164] Enforcement is preferable to subsidizing garbage collection.

> "Unlike health and education with high per capita costs and significant social and distributive benefits associated with their provision, no compelling arguments exist that society should subsidize... garbage disposal."
>
> - Mintz and Roberts, "Running on Empty"[165]

[162] M. Kelleher, J. Robins, J. Dixie, "Taking Out the Trash: How To Allocate the Costs Fairly" (C.D. Howe Institute, July 2005) http://www.cdhowe.org/pdf/commentary_213.pdf accessed December 10, 2008.
[163] M. Kelleher, J. Robins, J. Dixie, "Taking Out the Trash: How To Allocate the Costs Fairly" (C.D. Howe Institute, July 2005) p.18 http://www.cdhowe.org/pdf/commentary_213.pdf accessed December 10, 2008.
[164] S. Founrier, "City going after illegal dumpers: Managers monitoring worst areas to catch 'criminals' in the act" (Vancouver Province, October 2, 2007) http://www.canada.com/theprovince/news/story.html?id=40c00d28-4381-41ec-a55c-f677c3033afd&k=28267 accessed December 10, 2008.
[165] J. Mintz and T. Roberts, "Running on Empty: A Proposal to Improve City Finances" (C.D. Howe Institute, February 2006) p.3, and see pp.6, 13-14 http://www.cdhowe.org/pdf/commentary_226.pdf December 10, 2008.

Pay-as-you-throw

Over 200 communities in Canada and over 6,000 in the United States have developed "pay-as-you-throw" systems.[166] The number of Canadians using such a system appears to be rising fairly rapidly. Toronto has just adopted such a system, with a goal of 70% waste diversion by 2010.[167] Calgary[168] and other local governments are considering it.[169]

Since 1999, Owen Sound Ontario has operated a "user pay for garbage" program, aimed at reducing the amount of waste sent to landfill. City crews will only collect bags marked with a special tag, which can be purchased for $2.00 each.[170] Many Canadian local governments are considering, or have already implemented, pay-as-you-throw systems.[171] Over 7,000 communities had adopted pay-as-you-throw programs in the United States by 2006.[172] A wide range of background information and resources on pay-as-you-throw are available at the US EPA website.[173]

[166] M. Kelleher, J. Robins, J. Dixie, "Taking Out the Trash: How To Allocate the Costs Fairly" (C.D. Howe Institute, July 2005) p.12 http://www.cdhowe.org/pdf/commentary_213.pdf accessed December 10, 2008.
[167] City of Toronto, "New Garbage and Blue Bins" http://www.toronto.ca/target70/index.htm accessed December 10, 2008.
[168] CBC News, "City hall considering 'pay-as-you-throw' fee" (October 22, 2008) http://www.cbc.ca/canada/calgary/story/2008/10/22/garbage-fees-calgary.html accessed December 10, 2008.
[169] See google.ca search of "pay as you throw," e.g., as of December 10, 2008 http://www.google.ca/search?hl=en&q=pay+as+you+throw&btnG=Search&meta=cr%3DcountryCA.
[170] http://www.e-owensound.com/environment/bagtag.html
[171] Google search "pay as you throw" http://www.google.ca/search?hl=en&q=pay+as+you+throw&btnG=Search&meta=cr%3DcountryCA October 26, 2008.
[172] US EPA, "2006 PAYT Programs" http://www.epa.gov/epawaste/conserve/tools/payt/states/06comm.htm accessed October 26, 2008.
[173] US EPA, "Pay-as-you-throw" http://www.epa.gov/epawaste/conserve/tools/payt/index.htm accessed October 26, 2008.

Policy Goals	Examples of Appropriate EPR Tools
1. Reduce consumption of water	• Institute metering and establish a unit cost pricing system for water and liquid waste flows, for both residential and industrial users
2. Reduce emission of contaminants, and resulting environmental degradation and infrastructure costs	• Institute metering and establish a unit cost pricing system for water and liquid waste flows, for both residential and industrial users • Institute or raise special surcharges for purchase of fertilizers and pesticides
3. Reduce the scale of infrastructure required to manage municipal water flows by separating runoff from sewage	• Provide property tax reductions for neighbourhoods that support implementation of permeability-based runoff systems from public streets and boulevards. • Charge for stormwater disposal, and offer credits for retrofits that improve permeability and onsite runoff absorption (e.g., rain barrels, downspout disconnects, removal of driveways).
4. Reduce the amount of solid waste sent to the landfill and thereby reduce the need for new or expanded landfill sites	• Shift waste management charges from property taxes to fees for waste flows. • Reduce illegal dumping by raising fines and investing in enforcement. • Offer subsidies for composting systems that reduce waste pickup requirements. • Create disincentives for unnecessary building demolition such as demolition fees, and increased tipping rates for construction waste. • Offer development incentives, such as bonusing for provision of recycling and composting facilities in commercial or multi-family residential buildings.
5. Develop "eco-industrial networks" – associations of business and/or government facilities that share utilities and inputs, or recycle by-products among one another[174].	• Offer a business property tax reduction for eco-industrial system membership, or demonstrated reductions in waste that the municipality has to deal with. • Charge for unit consumption of utilities in order to provide incentives to develop eco-industrial type systems.

[174] See the Canadian Eco-Industrial Network for resources http://www.cein.ca/cein/resource_index.html accessed December 6, 2008.

Water – a free good as a right, or an essential good with real costs?

Given Canada's endowment of fresh water, and our tradition of supplying it at little or no cost to residents, it is understandable that some feel that water should be free and considered as a right.

There is a better reason for this argument. Water is essential to human health and sanitation, even to life itself. If people use too little of it, there will be health impacts and public costs. Water use for sanitation, in other words, has positive externalities. Thus the price should be subsidized.

However, it is also important to recognize that there are real costs of providing water. The costs include financial costs of collection, treatment, distribution and safe wastewater disposal, as well as the environmental costs of removing water from rivers, lakes. Traditionally, in many Canadian communities, these costs have been hidden from residents, but they are quite real.
The environmental costs of water extraction and degradation are currently paid by ecosystems and by people. The financial costs of water systems are paid by residents of a community, whether it is recognized on their utility bill, or hidden in their property taxes. Thus, paying for the amount of water used does not actually create a new cost for users. What it does is re-distribute the costs according to usage.

Generally speaking, sanitation usage is modest. The bigger water users are those who employ water outside the house – watering large lawns, filling pools, and washing cars. So moving to a user-pay system will mean that modest water users no longer subsidize excessive users.

Paying for water used gives a financial reward to those who avoid excessive, wasteful usage. And it ensures that the costs of that excessive usage are paid by those who incur them, instead of being subsidized by others.

As noted earlier, water user fees can be combined with "lifeline," or other progressive pricing structures so as to eliminate regressive impacts, or even to make the pricing progressive. It should be borne in mind that using property taxes to pay for water is far from progressive.

2.2.4 Air Quality Challenges

Although sometimes discussed at the same time, these are two separate and very different issues. Air pollution causes local air quality concerns: particulate emissions, carbon monoxide and other pollutants cause smog and immediate human health risks. According to the Canadian Medial Association, smog kills 21,000 Canadians per year.[175]

Greenhouse gas emissions, such as CO2, cause global warming, also termed climate change - a global phenomenon with impacts felt all over the world regardless of the source of greenhouse gas emissions. Nicholas Stern, author of the 2006 Stern Review that put the global costs of climate change at up to 20% of global GDP, has since said he underestimated the threat of global warming.[176]

[175] CTV News, " CMA report: 21,000 will die from pollution in 2008" (August 13, 2008) http://www.ctv.ca/servlet/ArticleNews/story/CTVNews/20080813/smog_report_080813?s_name=&no_ads= accessed November 30, 2008.
[176] David Adam "I underestimated the threat, says Stern" (Guardian, April 18, 2008) http://www.guardian.co.uk/environment/2008/apr/18/climatechange.carbonemissions accessed November 30, 2008.

"Municipalities in various regions of the country are dealing with severe drought, excessive precipitation and flooding, forest fires, ice storms, pest infestations and heat waves. This changing climate endangers municipal assets such as roads and bridges, transportation systems, water and wastewater systems, and coastal infrastructure. In the North, climate change also affects the ice roads system, seriously limiting the transportation of goods and delaying economic development."

- Federation of Canadian Municipalities, "Pre-budget Submission, 2008"[177]

Although local air pollution and greenhouse gas emissions are distinct, they are mentioned here together for convenience, and because the causes and the solutions - at a local government level - are largely the same. The places where local governments can have the most direct traction on local air pollution and greenhouse gas emissions are also the two biggest causes of emissions: transportation and sprawl.[178] Please refer to discussions within those sections for applicable EPR instruments.

2.2.5 Electricity Consumption Challenges

Many local governments own electricity distribution services. Some even own electricity generating services (e.g., EPCOR, ENMAX[179]). One way local governments can reduce the overall ecological footprint of their communities is by providing EPR incentives to reduce electricity consumption.

Policy Goal	Examples of Appropriate EPR Tools
1. Reduce the consumption of electricity by individuals and businesses, and thereby reduce the community's ecological footprint and the need for costly increases in distribution and/or generation infrastructure	• Implement pricing for electrical utilities that include full financial cost recovery, plus internalization of environmental costs. • Provide subsidies or other incentives for business and residential users to invest in retrofits that reduce consumption.

Barrie Hydro, an electricity distribution company owned by the City of Barrie, has developed an incentive program[180] for businesses to reduce electrical consumption. Under the Electricity Retrofit Incentive Program, business customers can receive financial incentives to carry out retrofits with a proven reduction in electricity consumption. Oriented toward reducing peak electricity demand, the program would help to delay or eliminate the need for costly increases in electricity generation.

[177] Federation of Canadian Municipalities, "Pre-budget Submission" (February 12, 2008) p.6 http://www.fcm.ca//CMFiles/feb132008bac1RLJ-2242008-8647.pdf accessed December 9, 2008.
[178] While some major industrial emitters are active within communities, they tend to be regulated by senior levels of government.
[179] www.epcor.ca, www.enmax.com.
[180] Barrie Hydro, "Electricity Retrofit Incentive Program" http://www.barriehydroerip.com/index.html accessed December 4, 2008.

2.2.6 Sustainable Buildings Challenges

Heating and cooling buildings consumes a significant amount of energy and results in significant greenhouse gas emissions. In addition, construction, renovation and demolition of buildings produces significant waste streams. Communities are increasingly promoting the development of green buildings, which:

- are energy and resource efficient;
- use renewable materials;
- produce little waste;
- are adaptable to different uses; and
- are healthy to live and work in.

"Greener" buildings can be encouraged by offering financial incentives based on the sustainability ratings and environmental performance of new and existing buildings.

In order to promote a fiscal change to encourage design directions, a rating system is needed to tie EPR levers to performance levels. The Leadership in Energy and Environmental Design (LEED)[181] performance rating system is increasingly used and recommended in many jurisdictions.

Policy Goals	Examples of Appropriate EPR Tools
1. Encourage the development of green buildings	• Provide density bonuses, DCC reductions, or other financial incentives for buildings that meet a certain level of performance on an accepted rating system
2. Ensure buildings interact with public spaces in such a way as to provide a high degree of liveability	• Density bonusing can be provided for key design elements such as "awnings" or overhangs to increase the liveability of the public realm. • Improvement districts can be established to finance liveability improvements, with fees waived if property owners undertake a range of pre-approved measures.
3. Improve the energy efficiency of existing buildings	• Subsidies for energy efficiency upgrades • Financing for upgrades, e.g. through paying down up-front capital costs on monthly utility bills[182]

[181] Canada's Green Building Council, "LEED Canada Initiative" http://www.cagbc.org/initiatives/leed_canada/index.php accessed December 15, 2008.
[182] E.g. Greater Edmonton Alliance, "Sustainable Works" http://www.greateredmontonalliance.com/sw/sustainableworks.pdf.

2.2.7 Social Equity Challenges

As noted earlier, EPR instruments such as user pay systems, if poorly designed, can be regressive and fail to provide much (if any) incentive to the wealthy. It should not be surprising to anyone that simply proposing to slap on a flat tax or a "user fee" unrelated to consumption offers little political promise. Intelligent design of EPR instruments can make them fairer, target the "bad" more accurately, and result in greater political acceptability.

Policy Goal	Examples of Appropriate EPR Tools
1. Increase fairness, accurate targeting of environmental improvements, and political acceptability of EPR instruments	• Design EPR instruments to provide lifeline or progressive rates, i.e. low price rates for modest use of essential goods and services, such as water, and higher rates for larger users. • Design EPR instruments to "grandfather" some prices or exempt qualified users where necessary (e.g., where a user fee or a shift in property tax structures could hurt retirees on fixed incomes). • Design EPR instruments to phase in new prices, which will allow people to plan ahead and make appropriate purchases. • Where an EPR instrument cannot be designed to be income or wealth progressive, develop a companion instrument that provides progressive compensation (e.g., a subsidy or income support program financed by recycling revenues from the EPR instrument). • Employ a review lens of fairness and political acceptability in all stages of EPR implementation: issue identification, instrument selection, instrument design, and communication

"Pricing discussions must always involve considerations of equity as well as efficiency. Low-income households, especially those served by high-cost systems, may face affordability problems if prices are raised. To alleviate these hardships, communities may offer pricing structures that mitigate impacts on low-income households. The most common example is "lifeline rates" whereby low-income households are charged lower rates on that portion of water consumption considered non-discretionary (the minimum sanitary requirement, e.g., 6,000 gallons a month) but then higher charges are levied on water consumption beyond that amount."

- US EPA, Water and Wastewater Pricing: Affordability Information[183]

[183] US EPA, "Water and Wastewater Pricing: Affordability Information (Lifeline Rates)" http://www.epa.gov/waterinfrastructure/pricing/Affordability.htm accessed October 26, 2008.

2.2.8 Local Government Financing Challenges

Local governments, both large and small, face a number of financial challenges. They have been de-funded for years by reductions of transfers from higher levels of government; between 1988 and 2004, transfers dropped by an average of 3.7% per capita, per year.[184] Also, local governments are being called upon to spend more; over the same period, "expenditures for housing, health and social services have increased … 46 per cent" in real terms.[185]

At the same time, local government revenue streams are few, and weighted heavily toward property taxes. This weight is increasing; revenues from property taxes have risen at twice the rate of overall revenue growth.

All of this has added up to a municipal infrastructure deficit of $123 billion.[186] While the fiscal imbalance between local governments and higher levels of government has taken on a new importance in the Canadian federation, the challenge of adequately funding investments in local services, programs and infrastructure remains. Revenues can be raised by a number of mechanisms that will help support smart growth.[187]

Policy Goal	Examples of Appropriate EPR Tools
1. Increase diversity of local government funding sources and reduce dependence on regressive property taxes	• Employ a wider range of the available revenue streams. • Work with provincial and territorial governments to obtain greater powers to raise revenues from new sources • Ideally, focus on developing "win-win" revenue streams, i.e. ones that address environmental issues, are progressive, and are "elastic" (i.e. will grow automatically as incomes and the economy grow).

[184] Federation of Canadian Municipalities, "The Municipal Fiscal Challenge by the Numbers" http://www.fcm.ca//CMFiles/sfiscalbalance1PDY-4172008-4102.pdf accessed December 5, 2008.
[185] Idem.
[186] Federation of Canadian Municipalities, "Backgrounder: The Municipal Infrastructure Deficit" http://www.fcm.ca//CMFiles/sinfrastructure1PFA-4172008-7676.pdf accessed December 5, 2008.
[187] R. Tomalty, "Innovative Infrastructure Financing Mechanisms for Smart Growth" (SmartGrowth BC, Dec 2007) http://www.smartgrowth.bc.ca/Portals/0/Downloads/sgbc-infrastructure-report-web.pdf accessed December 1, 2008.

"Offloading has taken a number of different forms. Federal and provincial governments have shifted expenditure responsibilities onto cities. Provincial governments have reduced transfers to cities. Both the federal and provincial governments have downsized their own responsibilities (such as immigration settlement at the federal level). Finally, federal and provincial requirements have mandated that cities meet certain requirements (for example, water quality standards) without providing the funds to meet those requirements (these are known as "unfunded mandates"). In all of these cases, cities feel the pressure to fill the void left by the federal and provincial governments.

"Although the roles and responsibilities of cities have been changing, there has been no diversification of their revenue sources. Canadian cities still depend largely on property taxes, user fees, and provincial transfers to meet their growing expenditure needs. The result is that there is a mismatch between the expenditures for which cities are responsible and the available revenue tools. This situation has raised questions about the fiscal sustainability of Canada's cities."

- Slack, "Easing the Fiscal Restraints on Canadian Cities" [188]

[188] Slack, "Easing the Fiscal Restraints on Canadian Cities," (Dialogues, Spring 2005, Canada West Foundation) http://www.utoronto.ca/mcis/imfg/pdf/Easing%20fiscal%20restraints%20(pages%2019%20&%2020).pdf accessed November 9, 2008.

Part 3 Building Environmental Pricing Reform Partnerships in the Community: Approaches for Local Government Leaders

Environmental pricing reform is a complex and sometimes subtle topic. And, of course, some EPR instruments raise revenues. Given these two factors, there is the potential for negative reactions to arise to new initiatives in this area. This potential can be mitigated with sensitive instrument design. However, it should also be managed with:

- proactive communications strategies; and
- processes that engage stakeholders.

In considering these methods of building constituent support, it is important to bear in mind the question of scale. Comprehensive, budget-wide EPR reforms, or reforms in particularly sensitive policy areas, may warrant the full range of communications and stakeholder work. Smaller initiatives may do better with a simpler treatment.

The two elements noted above – stakeholder engagement and proactive communications strategies – overlap to some degree. They are both important, it is likely that both will need to be applied, and they will both be familiar to municipal leaders. It could be that stakeholder engagement should come first in the process, or it could be that proactive communications should come first, or it could be that both should proceed at the same time. Relative timing will depend on the issues at play, instruments under consideration, political context, and a host of other factors.

3.1 Proactive Communication Strategies

Public education and outreach and strategic media communications are key to opening a discussion on EPR and successfully developing and implementing changes. Changes need to be linked to a strong rationale and list of community benefits. This information must be clearly and broadly communicated, and the mainstream media will be a key component of these communications. At the same time, community-based communications and social marketing can be used to build higher levels of commitment to the initiative.

Early communications

An education and communications strategy, designed to help launch the discussion process, would need to:

- Clearly define the rationale and goals behind the initiative and articulate them in terms of important and widely shared principles and public values;[189]
- Identify how any potential changes would relate to and support existing environmental goals and initiatives;
- Provide clear, accessible information about EPR to the public;
- Early on, directly explain to media representatives (e.g., editorial boards and relevant journalists) what the initiative is about;
- Invite stakeholders and interested parties to be part of the discussion around the proposed initiative if they aren't already involved.

Advanced public discussion

At the stage of advanced public discussion, further education and communications work will be required:

- Clearly define the specific EPR initiative and its elements, including time lines for development and implementation of the shift;
- Identify proposed changes and where those changes will be felt (e.g., sectors, households);
- If necessary, identify any forms of compensation offered; and
- Prepare for conflict to increase as the media frame the initiative to generate controversy.

Once an EPR proposal is fully into the public realm, there will be increased discussion of the costs and downsides. The media does tend to emphasize conflicts and focus on potential negative impacts. Stakeholders will lobby for various changes in the proposed initiatives.

It is helpful to have the involvement of communications specialists, as well as economists and others with expertise in EPR, when addressing public discussions of initiatives.

> "Some communities have reported that when first raised in public, the discussion of utility fees or user fees for garbage has generated more negative reaction in the media and among citizens than any other municipal issue. Others have found that given adequate time and information, with effective communications and the participation of key interest groups, consensus can be reached on the most appropriate approach for each community."
>
> - Kelleher, Robins, and Dixie, "Taking Out the Trash: How To Allocate the Costs Fairly"[190]

[189] E.g., S. Walker and G. Couture, "Reassessing Taxes: Tax Shifting as a Planning Tool" (Manitoba Professional Planners Institute, September 2004) p.3 http://www.mppi.mb.ca/documents/caseinpoint/2004/stephenwalker.pdf accessed December 7, 2008.
[190] M. Kelleher, J. Robins, J. Dixie, "Taking Out the Trash: How To Allocate the Costs Fairly" (C.D. Howe Institute, July 2005) p.18 http://www.cdhowe.org/pdf/commentary_213.pdf accessed December 10, 2008.

3.2 Stakeholder Engagement Strategies

As noted above, depending on a range of factors municipal leaders often find that it may be best to commence the stakeholder process before the communications and media work (or after it, or at the same time). It may also be useful to involve them in the early stages of instrument selection and design, and even issue identification. Involving stakeholders can not only alleviate fears and defuse opposition, but also sometimes result in better policy decisions (the "wisdom of crowds"[191]).

However, it is rarely possible to please everyone in any new policy initiative. Intelligent instrument design can mitigate resistance to change, but opposition can arise regardless. Thus it is important to clearly articulate the larger public-interest goals being served by the EPR initiative, and the government's commitment to achieving those goals – frequently, and in both communications and stakeholder processes. Having a wide range of respected champions can also help to build enthusiasm for the initiative.

The list of stakeholders relevant to EPR policy at the local scale is potentially large and will be unique for each situation, community or issue. Some policy instruments will have particular "high-priority" stakeholders, whose decisions will be the primary target of the instrument. Attention must also be paid to any unintended effects of the instrument on other stakeholders.

EPR initiatives will be perceived differently by each stakeholder, depending on anticipated impacts to their lives and businesses. Understanding these different perspectives and the messages an EPR initiative may send to each is key to successfully developing, refining and implementing an effective fiscal initiative.

Steps involved in addressing stakeholders in any EPR initiative should include:

- Broad public education, engagement, and capacity building;
- Identifying the linkages between policy priorities and stakeholders who will likely be affected;
- Identifying EPR tools relevant to the primary stakeholders

3.2.1 Broad Public Education, Engagement and Capacity Building

It is common for people to get involved in public processes when they feel threatened. It is far less common for them to get involved when they feel they will benefit. In the case of EPR, the prime beneficiaries will be the broader public. Many who benefit may never know about the initiative, and many of those have not yet been born. And so it is important to proactively encourage broad public participation in the process.

[191] J. Surowiecki, *The Wisdom of Crowds* (Random House, August 2005) http://www.randomhouse.com/anchor/catalog/display.pperl?isbn=9780385721707#desc.

This said, EPR is a complex subject, involving economics, environmental policy, and fiscal policy. While these topics affect everyone in a community, few (if any) understand all of their complexity and impacts. Thus public education is particularly important for EPR. Having and implementing a proactive communications strategy, as discussed above, is an essential step.

However, it will be necessary to identify spokespersons and champions who can effectively communicate with the public, breaking the issues down and presenting them in a way that engages and empowers stakeholders. These experts should be located in a variety of organizations, including local government, civil society organizations, business interests, and the media. The greater the variety of such experts, the more creative and pragmatic solutions can be developed.

3.2.2 Identifying Linkages between Policy Priorities and Stakeholders

The aim behind EPR is to provide incentives and disincentives so that investments and activities undertaken are more conducive to environmental sustainability. To achieve meaningful environmental goals, these incentives and disincentives will often need to be significant in magnitude.

Identification of stakeholders is therefore vital. Those who work on the pragmatic issues of implementation best understand the linkages between policy and stakeholders. A public process for integrating these people into the policy development process is key.

Some stakeholders who are consulted on a proposed EPR initiative will not argue with the intent of the change – often the problems being addressed are plain for all to see. Rather, they will be interested in the implementation details and the issue of equity. It is important that the fiscal policy review and consultation process allow opportunities for meaningful input and changes to the proposed policies to respond to refinements suggested by the primary stakeholders. This can take place through ad-hoc meetings, or through an institutionalized meeting "space" for the various interests, such as multi-stakeholder advisory boards.[192]

[192] E.g., Cowichan Valley Regional District Environmental Commission http://www.12things.ca/12things/about.php accessed December 5, 2008.

3.2.3 Identifying EPR Tools Relevant to the Primary Stakeholders

Each stakeholder relates to various local government policies in different ways, and likewise will relate to EPR instruments in different ways. For instance, the average citizen has little direct experience with development cost charges (DCCs) but many are directly affected by user fees or property taxes.

In aiming to shift decisions toward more sustainable options, it is useful to consider the stakeholder involved, and the types of EPR instruments that might be effective in shifting their decisions. The following list outlines primary types of stakeholders that should be considered when developing progressive fiscal policy.

3.2.3.1 Government

Within local governments, the cooperation of different functions and people will be necessary to implement EPR policies. Elected councilors, as well as staff involved in transportation, finance, environment, energy, development approvals and others will need to work with a project leader, and the discussions should be accessible to others.

Other governments (neighbouring communities as well as other orders of government) generally need to be consulted in any EPR initiative, as they often have overlapping jurisdictions and responsibilities.

First Nations governments warrant special mention. Some have revenue raising powers, and would be in a position to implement EPR. Aboriginal peoples have a unique place in Canadian society, in being original occupants of our land, and in enabling and facilitating the development of white settlements. Furthermore, in many communities, Aboriginal peoples comprise a significant proportion of the population. Although they may be exempt from some taxes in some circumstances, Aboriginal people are key stakeholders in any public policy process in Canada.

EPR tools most relevant to this group can include:

- All EPR tools (for co-operation within the local government);
- Road pricing (for roads near neighbouring communities);
- Local EPR tools for which their approval is required (e.g., if a local government requires a specific taxation power to be granted by a provincial government); and
- EPR tools that affect traditional livelihoods.

3.2.3.2 Developers

The development community is key to how communities and their buildings are designed and built. EPR policy that affects development choices can have a significant impact on how, where, and when developments are undertaken and municipalities respond to growth.

EPR tools most relevant to this group (and to their bankers and financiers) include:

- Development Cost Charges;
- Administration fees (particularly for approvals);
- Property taxes; and
- Surcharges (targeted at a particular issue).

3.2.3.3 Design, Engineering and Construction Professionals

Designers, architects, landscape architects, engineers, planners, and construction firms are often involved in the development and approval process. EPR policy provides incentives and disincentives for the design team to respond to, in dialogue with the developer, when creating a development.

EPR tools most relevant to this group can include those for developers (see above).

3.2.3.4 Landowners

Landowners are key stakeholders in any large-scale EPR initiative. They come in all sizes – from condo owners to those with large holdings.

EPR tools most relevant to this group can include:

- Property taxes;
- Improvement zones;
- User pay systems for municipal services (i.e., waste pick up or water supply);
- Surcharges (targeted at a particular issue); and
- Fines.

3.2.3.5 Local Community Organizations

Some EPR initiatives are focused on a particular locale (e.g., DCCs, improvement zones) and community groups in that area need to be considered. They are a key partner for information sharing and consultation. They can mobilize rapidly around issues and be a useful partner for information sharing and consultation.

EPR tools most relevant to this group can include:

- Those for landowners (see above), as members of local community organizations often are landowners in the area.

3.2.3.6 Businesses and Business Groups

Business people are influential because they pay significant taxes, are often well organized and politically engaged, and have the capacity to communicate and lobby effectively. Often their input will include useful analysis, particularly focussing on the impacts of policy changes on their businesses.

EPR tools most relevant this group can include:

- Property taxes;
- Fees for municipal services (i.e. waste management or water supply);
- Administration fees;
- Surcharges (targeted at a particular issue); and
- Fines.

3.2.3.7 Other Interest Groups

There are many interest groups to be considered in a given development project. There will likely be at least one interest group to be consulted for every major issue involved in a project. They can be sources of information and support as well as conflict and opposition. Interest groups may form to address a proposed initiative.

EPR tools most relevant to this group can include:

- All tools.

3.2.3.8 Media

The media is an essential and influential information-sharing stakeholder. While new electronic media (e.g., blogs, social networking utilities) play an increasing role in dissemination of information and opinion, particularly among younger people, the traditional mass media (print, TV and radio) are still relied upon by a majority.

The traditional media pay particular attention to fiscal issues, and a key method for attracting audience and advertising revenues is to report conflict and focus on negative stories. However, the traditional media can also play an important role getting the word out on a well-structured, common sense approach to changes.

Thus a communications strategy is essential to manage the information flow around any EPR policy initiative, through engaging established media channels, and potentially creating new channels.

EPR tools most relevant to this group can include:

- Fiscal changes, particularly taxes and user pay systems.

3.3 Looking Ahead

EPR can help communities bridge two key gaps: the gap between their environmental vision and their outcomes; and the gap between their fiscal constraints and their need for fiscal flexibility.

EPR, if well designed and implemented, can help communities achieve environmental goals, while boosting their economies and helping to diversify local government revenues. It resolves the failure of prices to take into account environmental costs and benefits. In doing so, it improves the environment by providing the right incentives, and can boost the economy by removing distortions and increasing efficiency. It can also help local governments diversify their revenue streams, and reduce their often excessive reliance on property taxes.

The EPR instruments available to communities span a broad range. This report provides an introduction to those instruments and how they can be applied to address local government policy objectives.

The ideas and suggestions here are not exhaustive of course; there is enormous scope for creativity in applying EPR instruments to specific local issues. An effective public engagement process can help improve the selection and design of EPR instruments, and boost public support.

Finally, there are considerable resources available to local governments and other community leaders who wish to employ EPR to address their environmental, economic, and fiscal issues. The endnotes are an integral part of this document, as they provide live links to those resources.

These resources show that local governments can adopt EPR right now. Many communities are already demonstrating that EPR is feasible, environmentally and economically beneficial to the community, and capable of winning support from a broad spectrum of community interests.

A more detailed Environmental Pricing Reform Toolkit is available at www.sustainableprosperity.ca.