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Greening the Provincial Budget

A Submission from Green Action Centre
(Updated January 2012)

Thank you for the opportunity to comment on provincial budget choices. Because they are still relevant, we have updated our November 2010 comments.

Green Action Centre is a non-profit, non-government hub for greener living based in Winnipeg and serving Manitoba. We are a registered charity, governed by an elected community board. We promote greener living through environmental education and encourage practical green solutions for homeowners, workplaces, schools and communities. Our many activities and concerns are displayed at our website <http://greenactioncentre.ca/>. They include the promotion of green budgets and a green economy through Public Utilities Board interventions and government consultations.

Background and Principles

Green Action Centre advocates the introduction and enhancement of green budgeting and fiscal measures that promote sustainable behavior by individuals and institutions and help create a more just and sustainable society. Such measures

- a) Make it easier and more rewarding to do the right thing (e.g. free or low-cost recycling and public transportation services);
- b) Make it harder and more costly to act unsustainably (e.g. by removing perverse subsidies for sprawl and fossil fuel consumption);
- c) Promote planning and investments for a more sustainable future (e.g. economically and ecologically efficient buildings, communities and transportation);
- d) Take a full-cost accounting perspective in assessing the costs and benefits of actions (e.g. social, ecological and economic costs and benefits of building, energy and transportation choices);
- e) Other things being equal, have users who impose social costs pay for those costs; but also
- f) Insure that basic welfare and human development needs (e.g. health and education) are provided for all citizens.

Principles (a) through (d) lead to a more sustainable society. Principles (e) and (f) represent two aspects of a just society that need to be reconciled – paying the costs of ones actions and meeting basic human needs. Despite some potential tension between them, justice requires attention to both.

Budget Recommendations

We comment on five measures to advance sustainability and justice in Manitoba: (1) making an explicit commitment to integrate sustainability into government priorities, planning and budgeting, (2) financing roadway infrastructure from vehicles and fuels, not general revenues, (3) encouraging a shift in energy usage through a tax shift based on carbon pricing, (4) encouraging workplace transportation demand management, and (5) encouraging Industrial, Commercial and Institutional and Construction and Demolition waste diversion by increasing the WRARS landfill levy and diversion rebate in the Capital Region (or province-wide). Finally, we recommend (6) the establishment of a Green Budget Working Group to examine these and other measures to promote a sustainable and just Manitoba.

1. Integrating sustainability into government priorities, planning and budgeting.

Manitoba sometimes impresses with its bold adoption of sustainability targets, but performance flags when implementation policies and practices are not commensurate with the goals adopted. Decades ago we were early adopters of the goal to reduce and divert landfilled waste in the province by 50% by the year 2000. We are now at 17%. More recently, the legislature passed ***The Climate Change and Emissions Reductions Act***, which set a GHG emissions target of 6% below 1990 levels by 2012. Government recently confirmed the provincial auditor's assessment a year ago that we wouldn't meet the target.

In ***The Sustainable Development Act***, the first Principle, and repeated theme, is "integration of environmental and economic [and social and human health] decisions". The first Guideline, "efficient use of resources," promotes economic and ecological efficiency (getting more social benefits with a lower economic cost and smaller ecological footprint) and identifies full-cost accounting that takes into account external social and environmental costs as an essential planning tool.

In short, sustainability and efficiency are at the core of enduring well-being. We call it "living green, living well."

It is thus unfortunate that developing a sustainable economy is omitted from both Manitoba's Five-Year Economic Plan (slide 8 of the budget presentation) and from the priorities identified for the new Priorities and Planning Committee of Cabinet (January 13, 2012 news release). We hope that this omission does not reflect a retrenchment from the Provincial Government's previous commitment to sustainability supported by all parties in the legislature.

Recommendation: To insure that this omission is an oversight, not a retrenchment, Green Action Centre proposes the following explicit amendments.

Manitoba's Five-Year Economic Plan includes five elements. We propose the underlined amendment to the second element.

- Stimulating economic growth and a greener, more efficient economy.

The proposed Priorities and Planning Committee of Cabinet is supposed to pursue the following four priorities.

- education and economic development for future job creation,
- efficient delivery of strong services for families,
- new opportunities for rural and northern communities, and
- future infrastructure and community development.

We propose a fifth priority for the committee, to be pursued integrally with the other four.

- *Creating conditions for a greener, more efficient and just economy.*

These amendments would be empty wordsmithing if they did not reflect real choices in how we stimulate the economy, build community and transportation infrastructure, provide opportunities for rural and northern communities, and make living in Manitoba affordable. The Province, to its credit, has initiated many sustainable alternatives. An excellent recent example is ***The Manitoba Bioproducts Strategy*** (http://www.gov.mb.ca/agriculture/pdf/the_manitoba_bioproducts_strategy.pdf), which targets rural and northern Manitoba. The recent announcement of a Biomass Energy Support Program to displace coal is most welcome. But there is a ferment of additional ideas amongst many Manitobans and beyond. In addition to our own activities (<http://greenactioncentre.ca/>), we mention as examples only the Winnipeg Citizens' Coalition (<http://www.ourwinnipeg.org/2010/09/coalition-calls-for-green-economic-growth/>) and 50 by '30 (<http://www.50by30.org/>).

Our remaining recommendations are a few examples of other ways to green Manitoba's economy.

2. Financing roadway infrastructure maintenance and upgrades through motor vehicle and fuel taxes rather than general revenues.

A number of observers noted that Winnipeg City Council's spur-of-the-moment decision to add a further 20 cents to the 2012 bus fare increase, besides being hasty and uninformed, also inequitably targeted bus users in a year in which the road budget grew by 34%. No comparable revenue increase was sought from motor vehicles owners, whose mobility depends on roads. Fees for city services, for recreation, for sewer and water, for transit, and for garbage collection rise to meet incremental spending or inflation. But motor vehicles, which demand an increasingly expensive network of roads and bridges, are sacrosanct – untouchable as a source of revenue to meet their growing costs. Instead we hear a despairing lament about an “infrastructure deficit” and calls for a bigger share of sales tax, but not on fuel.

Green Action Centre dug further and found the following.

- The present provincial fuel tax of 11.5 cents/litre has remained unchanged since 1993, nearly two decades.
- Because of inflation since 1993, that tax rate is today worth only 2/3 of what it was worth in 1993. To have the same purchasing power, the fuel tax would need to be increased to 16.5 cents/litre today.

- Manitoba charges no provincial sales tax on fuel, whereas many other jurisdictions do.
- The average Canadian pays 11 cents/litre more than Manitobans in gasoline taxes, i.e. 37.9 cents vs. 26.9 cents/litre.
- Bringing fuel taxes in line with the rest of the country would add over 150 million dollars per year to our infrastructure budget.
- Net revenue from the gasoline tax in 2010/2011 was \$143.8 million. Net revenue from the diesel tax (not including railway diesel) in 2010/2011 was \$75.0 million. These sum to \$218.8 million, but this includes taxes raised from fuel for off-road uses.
- In Budget 2010, roads and highways were budgeted at \$590 million, a third of the provincial infrastructure budget. The 10-year highway plan, begun in 2007, commits to spending \$4 billion over 10 years on highways, averaging \$400 million a year. Repairing flood damage is likely to run highway and bridge investments considerably higher than these planned amounts.
- Municipalities must supplement federal and provincial transfers of fuel tax revenue to build and maintain streets and bridges in their communities. Policing and traffic control are additional expenditures. Property taxes are the main source of revenue for these expenditures.
- Although Autopac covers personal injury claims, the provincially-funded medical system absorbs most medical costs arising from vehicular accidents.
- Over a third of Manitoba's GHG emissions arise from the transportation sector. None of the damages arising in Manitoba or elsewhere from climate change are paid by vehicle owners.
- Manitoba's strategic directions report **2020 -- Manitoba Transportation Vision**, (<http://www.gov.mb.ca/mit/2020/pdf/mbtransvisionmay05rpt.pdf>) recommends:
 - In order to achieve sustainable funding for our transportation infrastructure, Manitobans suggested an increase to fuel tax, on the condition that such fuel taxes are directed into a fund specifically dedicated for transportation infrastructure renewal (p. 13).*
- The Province does insure that all fuel taxes pay for transportation infrastructure, but it is not nearly enough. Although the **2020** report arose from extensive consultation, the Province did not follow the recommendation to raise fuel taxes to meet infrastructure costs, instead choosing to impose an ever-increasing burden on other revenue sources that also squeezed other funding needs.
- Vastly underpricing the cost of motor vehicle operations by underpricing the fuel tax is a massive perverse subsidy that undercuts the recommendations of the government's Vehicle Standards Advisory Board report **Moving Forward – Reducing Greenhouse Gas Emissions from Passenger Vehicles in Manitoba**. VSAB recommended measures to reduce emissions from existing vehicles, encourage consumers to purchase low-emitting vehicles, and help Manitobans to drive less. Yet the current subsidy to fossil fuel consumption makes these alternatives less attractive in comparison with other goods and services one might choose than if motor vehicle usage faced full costs.
- Indeed the VSAB noted (www.gov.mb.ca/conservation/climate/pdf/vsab_report.pdf, p. 1)
 - One important learning for the Board was that Manitobans' total annual vehicle kilometres travelled increased by 27 per cent from 2000 to 2007. We expect this is a good indication that our economy is strong and our citizens mobile. However, given that Manitoba led the nation in the size of that increase, and given that the Canadian overall*

increase was only 6.5 per cent, you can see that the obligation not simply to stabilize but actually reduce GHG emissions from this class of vehicles will not be trivial.

Conclusions

- Motor vehicles are an ever-declining source of revenue in Manitoba.
- Infrastructure, operating, policing, and medical costs enabling or caused by motor vehicle mobility continue to rise.
- Motor vehicle revenues meet only a fraction of their social costs and are heavily subsidized from other revenue sources or uncompensated damages.
- As a major component of the Manitoba economy, motor vehicle fuel consumption, being sales-tax-exempt (like groceries) imposes an additional burden on general revenue sources to support health, education and government services. There is thus a double whammy to taxpayers (a) from subsidies to road and other costs attributable to motor vehicles and (b) from having to shoulder the extra general tax burden that motor vehicle usage fails to assume. These are inequitable transfers of wealth from low- to high-consumers of fossil fuels and road users. Adding to a general sales tax in order to increase spending on road infrastructure would only increase that burden.
- Manitoba fuel taxes are 11 cents/litre less than the Canadian average, while the increase in vehicle kilometers travelled between 2000 and 2007 was 4 times greater than the Canadian average. Thus both economic theory and empirical evidence suggest that fossil-fuel tax pricing in Manitoba directly undercuts the Province's policies and legal obligation under ***The Climate Change and Emissions Reductions Act***.

Recommendations: Green Action Centre believes that the following measures would steer the province and municipalities toward a more sustainable funding model for transportation.

1. The Province has signaled that they regard the 25 cent fare increase for Winnipeg Transit as excessive and indicated a desire to work with the City to reduce it. In negotiations on this and other revenue matters, Green Action Centre recommends that, in exchange for a commitment by the City to hold the line on fare increases and complete the Southwest Rapid Transit Corridor by 2016, the Province create enabling legislation or regulation to permit Winnipeg and other municipalities to raise tax revenues from motor vehicles to pay for infrastructure costs. A list of options from the Victoria Transportation Policy Institute is provided in the attached submission to the City ***It's Time to Get Cars and Trucks off Welfare***. We think it inappropriate to add to property or sales taxes to meet transportation infrastructure needs, as some have suggested, when motor vehicles fall so far short of paying their share of societal costs in general and the costs they impose on society in particular.
2. Manitoba Finance should undertake a study to compile and quantify the costs attributable to motor vehicle operations that are unfunded or incompletely funded by vehicle and fuel taxes and fees paid to government or MPI. This would include capital expenditures on roads and bridges, maintenance and operations related to roads and bridges such as traffic signals and snow clearing, the portion of policing costs for traffic control and enforcement, and medical expenses

arising from traffic accidents. Such a study would provide decision-makers and the public the full-cost accounting called for in *The Sustainable Development Act*, which is essential to wise choices and justification of tax changes.

3. The Province should examine alternatives for raising revenues from motor vehicles to meet the costs they impose including, but not limited to, the straightforward measure of raising the fuel tax to match inflation or the Canadian average, at least. The Province should also consider adding the PST to fuel sales to contribute to general revenues. Such additional revenues could be used to meet current shortfalls such as the infrastructure deficit or fiscal deficit, or to meet other expenditure needs, or to reduce other taxes (e.g. the payroll tax or education tax on property) to create revenue neutrality.

One alternative that should be examined is a carbon tax such as BC has adopted.

3. Financing tax shifting, general public benefits and welfare benefits by implementing a carbon tax.

Greenhouse gas emissions and climate change have been recognized by the Manitoba population as a pressing concern. The government of Manitoba committed to the ambitious targets of reducing greenhouse gases by 6% below 1990 levels by 2012 and by further amounts thereafter. (The Province recently admitted, however, that they cannot now meet the original target by 2012.) The initial target will require a rapid reduction of over 3 million tonnes of greenhouse gas emissions. Green Action Centre applauds the government of Manitoba's commitment to significant greenhouse gas reductions. We believe additional measures are necessary to reach these targets. We recommend that the Government of Manitoba introduce a progressive, revenue-neutral carbon tax. We recommend that the tax be introduced at \$15 per tonne and increase to \$30 over four years.

What is a Carbon Tax?

A carbon tax is an environmental tax levied on fuels based on how much carbon they contain. It is effectively a tax on the carbon dioxide emissions caused by of burning fossil fuels. Because carbon dioxide is the most significant contributor to anthropogenic global warming, taxing carbon in fuels can be an effective way to limit our part in causing dangerous climate change.

Why choose carbon taxes?

Carbon taxes are favoured by economists because they are simple and efficient ways to encourage both industrial and household consumers to include in their purchasing decision information about how the choices affect greenhouse gas emissions and climate change. Carbon taxes can effectively reduce greenhouse gas emissions by encouraging more environmentally friendly choices across the whole of the economy ranging from switching to a more fuel efficient automobile to reducing wasted heat in factories. Every fuel user is affected proportional to the amount of fuel they consume.

Carbon taxes are not prescriptive, and do not require that consumers adopt any particular technology. This can be important for government, as it is able to remain impartial. Governments that back

particular technologies, such as biofuels, solar, or wind power, may risk supporting a technology that in the long run turns out to be ineffective or costly in terms of greenhouse gas reductions. A carbon tax by contrast allows market participants to judge the merits of given approaches to greenhouse gas reductions, subject to the overall regulated guidance of the carbon price. A carbon tax can best encourage and reward many of the most effective solutions to greenhouse gas reductions that can be undertaken by households, organizations and businesses, since these are often small scale and individualized or behaviour based: e.g., changing driving habits or learning to correctly set ones thermostat.

Any shift in taxes or spending will see some winners and losers. Carbon taxes are no exception. As a flat tax on consumption, carbon taxes are moderately regressive. However, a carbon tax can be made less regressive or progressive (i.e. ensuring that lower income households do not pay an unfair share of the tax) if it is combined with tax shifting to help lower income households, funding to help Northern and rural residents adapt by providing dividends to residents to help them make the transition to lower carbon lifestyles. In addition, low income home heating programs that base energy bills on a ratio of income could greatly reduce the impact of a carbon tax.

Legitimacy for the tax can be increased by making sure the tax is revenue neutral, i.e. that it does not increase the overall tax load to households, farms and businesses, and progressive. The British Columbia experience shows that carbon taxes can have greatly increased acceptance if they are seen as revenue neutral. A revenue neutral carbon tax is one that uses all the revenue generated by the tax to fund other tax reductions. The BC Liberals won the 2009 election while campaigning on a carbon tax. Expected opposition to the tax did not materialize in most regions of the province because for most residents the overall financial cost of the tax was less than the tax reductions they would receive as benefits. The BC Liberals initially did lose some support in some Northern and rural communities because of the tax. Lessons should be learned from this experience and any carbon tax should be implemented in consultation with Northern and rural communities to ensure that it addresses their particular needs.

It turns out, according to a recent article in *The Economist*, that British Columbia's carbon tax is not only feasible, but has become politically popular and effective in reducing greenhouse gases. A recent poll of British Columbians found that carbon taxes rank as second only to taxes on corporations as their favourite way to raise revenue. Despite earlier controversy, all parties in the BC legislature now support the tax (<http://greenactioncentre.ca/2011/carbon-tax-good-policy-good-politics/>).

Facts on carbon tax in British Columbia	
\$15 per tonne	2008
\$30 per tonne	2012
4.5%	Reduction in per capita fuel use
69%	Support a carbon tax applied to all GHG emissions.
\$848 million	Revenue generated 2008 – 2010

Carbon taxes in Manitoba

In Manitoba, only a small percentage of industries would be regulated by a cap and trade program. The Hud Bay smelter is closed down already for economic reasons, our coal powered electricity generating capacity is already being fired down and there is legislation and a plan to capture emissions from the Brady Landfill. Beyond these, only a small number of industries are above a threshold that would allow them to be regulated under cap and trade. In 2008, there were 8 Large Final Emitters in Manitoba which together accounted for 11% of Manitoba's total GHG emissions. The Manitoba economy is characterized by a large number of point emitters. For example, transportation alone accounts for 37% of greenhouse gas emissions, and agriculture accounts for 30%. If Manitoba is to reduce greenhouse gases by 6 percent below 1990 levels as per our legislation, it is these which must be brought under control. A carbon tax can be effective at achieving these reductions.

Revenue from the tax

We suggest implementing a carbon tax on a similar scale and rate as the carbon tax introduced in British Columbia. There, the tax was introduced at a rate of 15 dollars per tonne in 2008 increasing to 30 dollars per tonne by 2012. On gasoline this tax meant a 2.41 cent per litre tax in 2008 increasing to 7.24 cents per litre by 2012. Other fuels saw corresponding tax increases. In BC, the carbon tax generated \$727 million in revenue in 2010. This revenue funded tax cuts of 384 million dollars to individuals and \$412 million to businesses. On the scale of Manitoba's economy, this could equate to \$246 million (proportional to our greenhouse gases, which are about one third of British Columbia's).

4. Employer cost splitting to encourage workplace transportation demand management.

Quebec recently initiated a cost-splitting program for certain employers to encourage the adoption of commuting alternatives to the automobile for their workforce

(http://www.mtq.gouv.qc.ca/portal/page/portal/entreprises/transport_collectif/programmes_aide/modes_transpt_altern#vol2).

Green Action Centre recommends that the province provide a matching grant for employers for the implementation of measures aimed at reducing driving alone by promoting the use of

transit, carpooling/vanpooling, biking, and walking. The matching grant could cover a variety of activities but not exceed a set total dollar value, such as \$35,000, per employer.

Cost splitting with employers would help leverage private sector commitment to implement transportation demand management (TDM) measures. Examples of potential TDM activities include introducing (or piloting) a discounted bus pass to encourage employees to switch to transit, providing secure bicycle parking on-site, conducting employee surveys to identify barriers and preferred solutions or track progress, subscribing to or setting up a ride-matching service to facilitate carpooling, offering an emergency ride home program, or providing cash-in-lieu of parking.

Transportation activities are the largest source of GHG emissions in Manitoba, with personal passenger vehicle emissions accounting for 40%. Given that the vast majority (81%) of the Manitoba labour force gets to and from work by automobile, employers represent a critical opportunity to reduce GHG emissions associated with personal transportation.

5. Coordinating the size and application of the WRARS landfill levy with initiatives to promote waste diversion, particularly in the Institutional, Commercial and Industrial (ICI) and the Construction and Demolition (C&D) sectors.

The City of Winnipeg recently approved a Comprehensive Integrated Waste Management Plan (CIWMP) with a heavy focus on waste reduction. City officials indicate that currently only 17% of the city's waste is diverted – much less than in other major Canadian cities. The city's ambition is to raise the diversion rate to 50% or higher. Green Action member Harvey Stevens recently undertook a study of the ICI and C&D sectors, which represent over half the waste produced in Winnipeg. He interviewed industry representatives, who told him that as long as it is significantly cheaper to dump waste in landfills than to recycle, that's where it will go. Some of them advocated raising tipping fees and initiating landfill bans targeted at recyclable materials to change this picture. The problem is, the city cannot undertake these measures in isolation, because commercial waste would then simply go to other landfills in the capital region that didn't have bans or raise tipping fees.

Therefore, the province must act in concert with the city by (a) creating landfill bans for recyclable materials in the capital region or province-wide and/or (b) increasing the tipping fees for commercial waste by raising the Waste Reduction and Recycling Support (WRARS) levy and using the proceeds to augment commercial recycling efforts.

Thus the Green Action Centre recommends that Manitoba Finance and Manitoba Conservation work closely with the city as they complete the ICI and C&D components of their comprehensive waste plan to identify the complementary provincial policies and levels of WRARS levy and rebates needed for the city, and thus the province, to climb out of the waste production cellar.

6. Finally, Green Action Centre recommends that a Green Budget Working Group, comparable to the Premier's Economic Advisory Committee, be established with

research support to review in detail measures such as these and other green proposals to promote the greening of the Manitoba economy. Such a group could report to the new Priorities and Planning Committee of Cabinet.

Conclusion

Manitoba sometimes impresses with its bold adoption of sustainability targets, but it has fallen short as well. We need priorities, planning and budgets commensurate with the goals we adopt and there is a broad consensus among economists and business leaders that creating the right price signals through green budgets and fiscal measures must be a central tool. Such measures can create equity and efficiency in an economy by correcting perverse subsidies and better assignment of costs. Increased societal wealth can also serve to mitigate impacts on and improve prosperity for all. Sustainability cannot be an afterthought but must be an integral part of policy initiatives in all spheres of the economy in order to create enduring prosperity. Green Action Centre offers the above recommendations as examples of the kind of policies that can provide the right economic environment to achieve our common goals for a more prosperous, sustainable and just Manitoba – Living Green and Living Well for All. We look forward to our continued partnership with the Province to achieve these goals.

Thank you for your attention.

Attachments:

Submission to Winnipeg City Council: ***It's Time to Get Cars and Trucks off Welfare***

Challenges & solutions for increasing diversion of ICI and C&D waste



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Green Action Centre will present to Council its thinking on sustainable funding for sustainable transportation (Key Strategic Goal Five of the TMP), which is summarized in this op-ed submitted to the Winnipeg Free Press.

It's time to get cars and trucks off welfare.

City Council's recent 25 cent fare increase to fund rapid transit provides a dramatic perspective on priorities in the capital budget now before Council.

The decision was hasty – even reckless – with no analysis of consequences, no consideration of other funding options, and no professional, public or provincial input. It has the potential to reduce rather than augment revenues if discretionary riders go back to their cars thereby increasing congestion and wear and tear on city streets. And it is regressive socially, putting an extra burden on low-income and disabled non-discretionary riders.

Meanwhile the city plans to spend \$150 million on streets and bridges in 2012 alone, a 34% increase over 2011, but there is no attempt to collect extra revenues from motor vehicles, nor has there been for years. Even when planning new rapid transit infrastructure, the priority of Council seems to be maintaining subsidies for private vehicles. It's time for cars and trucks to get off welfare.

Fees for city services, for recreation, for sewer and water, for transit, and for garbage collection rise to meet incremental spending or inflation. But motor vehicles, which demand an increasingly expensive network of roads and bridges, are sacrosanct – untouchable as a source of revenue to meet their growing costs. Instead we hear a despairing lament about an "infrastructure deficit" and calls for a bigger share of sales tax, but not on fuel.

It is true that a portion of capital expenditures for streets and bridges is supported by federal and provincial fuel taxes. But the provincial tax has remained a constant 11.5 cents/litre for almost two decades, with no adjustment for inflation and no provincial sales tax on fuel. The gasoline tax rate is now worth only two-thirds its value in 1993, when the last increase occurred. An inflationary adjustment to the present would raise the provincial fuel tax to 16.5 cents/litre. Because sales tax is not added on to gas, the discount is even steeper. The average Canadian driver now pays a full eleven cents more in taxes on a litre of gas than we pay in Manitoba. Bringing gas taxes in line with the rest of the country would add well over 100 million dollars per year to our infrastructure budget.

What can the city do about this unsustainable inequity, which shifts the tax burden away from motor vehicles to other sources, including transit users? In the first place, we need to complete the vision of a sustainable Winnipeg with a commitment to sustainable funding and a shift to more sustainable modes of transportation. Cars and trucks should at least pay for the streets and bridges that enable their mobility.

If there is a gap between fuel revenues and road infrastructure needs, this should be used as an opportunity to work with the province to explore new funding options including a tax on registered vehicles, an increase in the fuel tax, increasing the property tax on parking lots, automated road and bridge toll billing facilitated by transponder technology, and other measures. Consideration of some of these options would free up millions of dollars needed to complete the southwest rapid transit corridor without raising bus fares. A sustainable Winnipeg means we all must pay our share, including drivers.

Councillors may wish to review the fuel tax comparison between Winnipeg, Toronto and Canada found at http://www2.nrcan.gc.ca/eneene/sources/pripri/prices_bycity_e.cfm?PriceYear=2011&ProductID=1&LocationID=66,17,15#PriceGraph. Note the average Canadian pays 37.9 cents/litre vs. 26.9 cents/litre for Manitobans.

A great source for transportation funding options is the Victoria Transportation Policy Institute. The following excerpt is from <http://www.vtpi.org/tdm/tdm119.htm>.

Although there are many possible funding sources, some are particularly appropriate because they support other planning objectives such as traffic and parking congestion reduction, more accessible land use development, pollution reductions, and increased [Equity](#). Below are common funding options:

- [Parking Pricing](#). Some jurisdictions and campuses dedicate public parking revenues to transportation programs.
- *Special Parking Taxes*. Some jurisdictions impose special taxes on commercial parking transactions or on parking facilities (Litman, 2006).
- [Road Pricing](#). Some communities use road tolls and congestion fees to fund transportation programs, including roadway facilities, transit improvements and TDM programs.
- [Fuel Tax Increases and Surcharges](#). Some jurisdictions dedicate a portion of fuel tax revenues to special transportation programs (such as dedicating 1% of fuel tax revenues to nonmotorized facilities), or impose an optional, additional fuel tax for local transportation programs.
- [Carbon Taxes](#). These are special taxes based on fossil fuel carbon content, and therefore a tax on carbon dioxide emissions.
- *Dedicated local or regional sales taxes*. This may require a public referendum.
- *Payroll taxes*. Some jurisdictions impose a special tax on employers to finance public transportation or other commuter services. For example, about half the costs of Portland, Oregon's TriMet transit system if financed by a 0.72% payroll tax (ODOR 2010).
- *Transportation Impact Fees*. These are fees paid by developers based on the transportation costs imposed by their projects. For example, a developer may be required to pay for roadway improvements, public parking facilities (called *in lieu* fees), funding for a [Transportation Management Association](#), walking and cycling improvements, or other programs that mitigate local traffic impacts.
- *Special Property Taxes*. Some jurisdictions impose special property taxes in areas served by transportation programs and services, sometimes called a *Local Improvement District* or *Land Value Capture* (Smith and Gihring 2003; Wetzel 2006; CTOD 2008).
- *Vehicle impact mitigation fees*. This is a fee on each vehicle registered in the region to pay for programs and projects that serve motorists and mitigate the negative impacts caused by vehicle traffic.
- *Business or Employee Assessments*. Some [Transportation Management Associations](#) and [Commute Trip Reduction](#) programs are funded by a special assessment on businesses in an area, based on floor area, revenues or number of employees.
- *Grants*, such as foundation or government grants to help fund programs and facilities, such as school transportation safety education, and transit stations.
- Require certain types of improvements on private properties (sidewalk installation and repairs, street trees, etc.) when real estate is sold (Shoup, 1996)
- *Special Funding For Transportation Problem Solving*. Various federal, state, provincial and private funds may be available for transportation programs that address specific problems. For example, TDM programs may qualify for U.S. federal Congestion Mitigation and Air Quality (CMAQ) funding, and Canadian sustainable infrastructure grants. Other funding programs support energy conservation and emission reduction activities, nonmotorized facilities (public trails and streetscapes) and encouragement projects, school trip pedestrian safety, [Smart Growth](#) and urban redevelopment activities, mobility services for transportation disadvantaged people (low income, people with disabilities, children, elderly people, etc.), and various other planning objectives that TDM strategies often support.

Green Action Centre proposes the following formal amendments to the Preliminary Capital Budget and Forecast.

The Public Service is directed to explore and evaluate a variety of alternative funding mechanisms for the implementation of sustainable transportation in Winnipeg, including options to be pursued in cooperation with the province, and options which can be pursued independently by the City.

In the absence of new transportation funding, the Public Service is directed to cap spending on roads and bridges at the sum of the Federal Gas Tax and Provincial Funding for Road Improvements (\$243 million + \$150 million = \$393 million) for the next six years and reallocate the \$58 million excess of road expenditures over these revenue sources to the Rapid Transit Capital Budget.

October 9, 2010

Challenges and Possible Solutions to Achieving Higher Waste Diversion Rates for the IC&I and C&D Sectors in Manitoba

Introduction

This discussion paper has been prepared by the Green Action Centre (formerly Resource Conservation Manitoba or RCM) to support the City of Winnipeg's process for developing its Comprehensive Integrated Waste Management Plan (CIWMP). The focus of this discussion paper is on the challenges and solutions to diverting waste from the Industrial, Commercial & Institutional (IC&I) and Construction & Demolition (C&D) sectors for two reasons.

First, the waste from these sectors comprises a large proportion of the total waste going to landfills. The latest Waste Management Survey conducted by Statistics Canada (2006) shows that 55 per cent of all waste disposed of in Manitoba was from the non-residential sector and that the per cent of materials from the non-residential sector being diverted had declined from 26 per cent in 2000 to 13 per cent in 2006.¹ The City's own statistics show that, in 2009, the residential sector accounted for 230,916 tonnes (72%) of waste going to the Brady landfill with the IC&I and other municipalities accounting for approximately 88,000 tonnes (28%) of materials going to the Brady Landfill. The City believes that it has lost share of commercial waste, so percentages of IC&I and C&D waste are expected to be much higher at the private landfills in the Capital Region.²

Second, the City has direct responsibility for collecting waste from only the residential sector and has set a waste diversion target of 50 per cent for only this sector.³ Thus, the major thrust of the planning process will be on how to increase the residential waste diversion rate. However, a comprehensive and integrated waste management plan, by definition, should cover all waste streams. Accordingly, due consideration has to be given to how to increase the level of waste diversion from the IC&I and C&D sectors to meet both City and Provincial waste reduction objectives.

¹ See, www.statcan.gc.ca/pub/16f0023x/2006001/5212379-eng.htm

² Sources include the City's residential garbage report and slide 9 of the City's presentation to the Brady Landfill Put or Pay Consultation Information Session.

³ The terms of reference for the RFP for the CIWMP include an analysis of all waste streams and consideration of how they can be handled.

Current System for Handling Waste from the IC&I and C&D Sectors

From conversations with the City of Winnipeg waste managers, private waste haulers and MRF operators, we understand the system for handling waste from the IC&I and C&D waste streams to consist of the following:

1. IC&I institutions contract with private waste haulers to either pick up their waste for hauling to landfills and/or truck to MRFs for processing. Waste haulers were silent on what they charged their customers for hauling waste to the landfills. They indicated that the MRFs charged \$60/tonne for processing commingled waste and that this cost is higher than the cost of hauling waste to the landfill.
2. The types of materials collected from the IC&I sector include cardboard packaging, office paper, #1&2 and #3to7 plastics, shrink wrap and metals. IC&I materials not handled by the MRFs include plastic bags, Styrofoam, #3 to 7 plastics, glass and organics.
3. Most IC&I waste is landfilled. Several waste haulers estimated they divert about 10 per cent of their materials to MRFs. (The 2006 Waste Management Survey estimated 13%). The diversion rate depends on the type of material. There is one local firm picking up organics from the IC&I sector and converting it into compost.
4. Most C&D waste is landfilled. However, the private initiative (Woodanchor) for diverting elm, oak and basswood trees from the landfill arose as a result of the City requiring alternate uses for tree waste. Concrete and asphalt, if it contains no rebar, is used as road base. Some shingles are being recycled but no gypsum drywall and mixed loads.
5. There are very few local firms that convert the materials handled by MRFs into new products.⁴ As a result, almost all diverted materials are shipped to distant markets – in Canada, the U.S. and abroad (largely China). Rail is not used for shipping because the rail companies charge siding fees for the time the car sits in the yard and at its destination point and they aren't accommodating with providing rail cars when needed. As a result, everything is shipped by truck in typical 20- to 22-tonne loads.

Challenges to Diverting Waste from the IC&I and C&D Sectors

The challenges are all about the economics of collecting, processing and shipping the materials.

At the point of collection, most customers elect to landfill their waste material because the waste hauler charges a lower price to landfill than to take to a MRF for processing. There are some customers who willingly pay the higher price for recycling but they are in a minority. A key reason for the low cost of landfilling IC&I waste is the low tipping fees charged by the landfills.

⁴ The exceptions are Gerdau Ameristeel and Xpotential

And, with the presence of three landfills in close proximity to Winnipeg, there is competition that works to keep landfill tipping fees low. Other collection barriers include the time it takes to train staff to sort materials and the extra containers required to divert recycling from garbage and organics. With customers who experience high staff turnover, sorting is a barrier. MRFs have moved to accepting commingled bins which avoids the need to sort but increases their tipping fee over sorted bins.

At the point of processing materials, the economics are chiefly about the price which MRFs can get for the materials they ship to processing companies. The recession that hit in late 2008 caused a dramatic drop in the price of products. Since then, the prices have rebounded. For example, one MRF had to pay \$50/tonne to the end-processor to accept #1&2 plastics in 2008. Now, it gets \$200/tonne for them. Similarly, another processor stopped accepting cardboard and paper when the recession hit. So, it's not only about the prices of these commodities but the fluctuation in the market prices and being able to sustain a profitable operation across these periods of fluctuations in market prices. In addition, for some waste materials there is simply no market for the materials; e.g. glass.

The profitability of a MRF operation also has to do with processing and shipping costs. One MRF respondent indicated that it costs \$32/tonne for baling and between \$25 and \$34/tonne for shipping and thus has to sell the product for between \$57 and \$66/tonne just to cover these costs. If materials are commingled, then the processing/baling costs are higher. However, there are technologies for reducing sorting costs such as optical scanners which can distinguish between the several grades of plastics. But the initial capital cost of acquiring these is high. Another factor affecting processing and shipping costs is the volume of materials collected. Without a sufficient volume of materials, the unit cost of collection, processing and shipping becomes too high to be profitable.

Possible Solutions to Increasing Diversion Rates for IC&I and C&D Materials

Raising Diversion Rates at the Point of Collection

If it becomes more expensive for IC&I and C&D customers to have their material landfilled than sent to MRFs, they will switch to diversion. To do that, either the cost to the waste hauler to landfill materials has to increase and/or the tipping fee charged by the MRF to the waste hauler has to fall.

There are two solutions to increasing diversion rates at the point of collection. One is more draconian and involves banning those materials from landfills that have product stewardship programs in place for recycling materials, including used oil and tires, packaging and, in the near future, household hazardous wastes and electronics. The other is higher landfill tipping fees.

Landfill Bans

Nova Scotia has successfully used landfill bans to increase its diversion rates since the mid-1990s. A report prepared for the City of Ottawa in 2007 listed landfill bans as a further stage in the implementation of a comprehensive waste management strategy; and, the October 2009 report released by the Ontario Ministry of Environment recommended banning designated

materials from disposal sites after waste diversion plans are in place and markets exist for those materials.

It is not clear if the City of Winnipeg has the legal authority to ban materials from the Brady Road landfill. However, even if it does, such a ban would not be effective in diverting IC&I and C&D waste because waste haulers could simply take the banned materials to the other two landfills in the Capital Region. Hence, at least a Capital Region, but preferably a province-wide ban is required to create a level playing field. The Province of Manitoba could institute such a ban by amending the *Waste Disposal Grounds Regulation* of the Environment Act by including a schedule which sets out the banned materials that are currently included in Clause 2 – Designation of Material – of each of the provincial stewardship regulations. Organics should also be included in the list of banned materials.

Higher Landfill Tipping Fees

Short of banning materials from the landfills, the City could establish higher tipping fees to make it cheaper for the waste hauler to truck the materials to MRFs. Several respondents thought the landfill tipping fees would have to be in the order of \$75 to \$100/tonne to induce IC&I customers to use the MRFs. However, if the City acted alone in raising its tipping fees, waste haulers would then have an incentive to use the other two landfills in the Capital Region. Hence, at least a Capital Region-wide increase in tipping fees has to occur to avoid competition between landfills. To achieve this, the Province could increase its recently-introduced Waste Reduction and Recycling Support (WRARS) levy from its current \$10/tonne to a level necessary to ensure waste materials are sent to MRFs for processing. The additional revenue raised from the higher WRARS levy could be used to fund infrastructure improvements to the processing of waste materials at the MRFs, encourage the development of local industries for processing waste materials into new products and promote improvements in the shipping of waste materials to distant markets. These developments then could give MRFs the financial room to lower their tipping fees and thus make waste diversion more affordable by the IC&I and C&D customers.

Improving the Economics of Processing and Shipping Recyclables

While the Green Action Centre is not familiar with the technologies used by local MRFs in processing and shipping the waste materials they receive, there are likely emerging technologies that could be adopted that would lower processing costs and/or raise the prices paid by end-users for the waste materials. One type of improvement would focus on achieving a high level of purity of the waste product because of the much higher prices obtained. For example, uncontaminated plastic bags from supermarkets fetch \$400 to \$500/tonne; whereas, commingled plastic gets only \$20/tonne. One MRF operator talked about an optical scanner used by one of its operations in eastern Canada that allowed it to sort the different grades of plastic and thus achieve high levels of purity in the waste material. Another type of improvement would be that of pre-processing materials into dense packages that result in lower shipping costs. For example, a U.S. company melted plastics into bales that were then shipped for end-use processing, resulting in lower shipping costs due to higher volumes of pre-processed waste material being shipped per load and possibly higher prices.

In regards to shipping the waste materials to distant end-users, one can ask whether there are improvements that can be achieved. MRF operators pointed out the shortcomings of using rail.

However, the Green Action Centre wonders if a collective effort at shipping materials by the several MRFs would provide the railways with an incentive to do business with them. Alternatively, are there more economical configurations of truck hauling that could be used?

Finally, the Green Action Centre sees the local processing of waste materials as the best solution, from an environmental standpoint, because it avoids the greenhouse gases emitted by transporting these materials vast distances. Therefore, on a material-by-material basis, the Province could commission feasibility studies into the end-use processing of the key materials currently being collected from both the residential and non-residential sectors including, cardboard, newsprint, office paper, #1&2 plastics, #3 to 7 plastics, wood, concrete and asphalt, shingles, gypsum drywall, organic waste.

Summary

Waste diversion rates are extremely low in the IC&I and C&D sectors due largely to inadequate financial incentives facing customers, waste haulers and MRF operators and fluctuating demand and prices for the materials. Customers pay less for landfilling than recycling because of low tipping fees and the absence of landfill bans. Landfill bans would force them to send their materials to MRFs and higher landfill tipping fees would make it cheaper for them to do so. MRF operators face fluctuating demand and prices for the materials they collect, which they attempt to offset by changes in the tipping fees they charge. However, to the extent that they can institute processes which increase the purity of the materials they ship and densify their shipments, they can increase their profit margins and thus have room to lower their tipping fees to induce more people to provide them with waste materials.

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