2004 TORONTO SMOG REPORT CARD

Final Grade B+

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TORONTO SMOG REPORT CARD 2004

Subject	Comments	Grade
Leadership (p.6)	Fast action by the new Mayor and Council on energy efficiency, green fleets and the Island Airport is good news for clean air. City-owned social housing becomes a green leader.	A
Transit (p.11)	Transit gets a boost as the St. Clair streetcar Right-of-Way is approved and transit funding increased in 2004 budget. The future is in doubt, however, as the TTC's Ridership Growth Strategy sits on the shelf.	B-
Energy Efficiency (p.12)	$35 million for energy efficiency this year, with more on the way as part of a plan that could reduce the City's energy bill by $11.5 million and eliminate over 100,000 tonnes of greenhouse gases.	A+
Green Power (p.14)	No green power purchase by the City, but Enwave's Deep Lake Water Cooling project is on-line and cooling the downtown with renewable energy. The City's shares in Enwave and Toronto Hydro should be used to ensure more wind turbines, solar panels and deep lake water cooling in our green power future.	B-
Fleets and Fuels (p.15)	Toronto's Green Fleets program will see City vehicles using biodiesel and low-sulphur fuels in the existing fleet, and 4 out of 5 new light-duty vehicles being gas-electric hybrids, reducing greenhouse gas emissions by 23% over business-as-usual.	A
Bikes and Pedestrians (p.16)	Bike Plan implementation is moving at half speed.	B-
Public Education (p.17)	The *20/20: The Way to Clean Air* program is working well, but it would be good to see the Mayor and Council take more of a role in public education on smog.	A
2004 Final Grade		B+

The early evidence is that Mayor David Miller and Toronto City Council are making real strides in cleaning up Toronto's air. Toronto City Council has been awarded a B+, their highest grade ever, in the seventh annual Smog Report Card issued by the Toronto Environmental Alliance (TEA). Toronto was not awarded an 'A' because they missed opportunities to take action on transit and green power.

TEA's annual Smog Report Card compares Council's actions with their clean air commitments. These commitments were made in the 1997 Toronto Smog Plan, the 2000 Environmental Plan and at the annual Toronto Smog Summits.

This year, Smog Report Card evaluates Council's actions in 2003 – 2004 on 20 initiatives in seven major areas: leadership, transit, energy efficiency, green power, fleets and fuels, bikes and pedestrians, and public education.

Mayor Miller and Toronto City Council have responded to the concerns about smog expressed during the 2003 municipal election and at the *Listening to Toronto* sessions by acting quickly on many of the remaining elements from the City's Smog Plan. Highlights include:

- $35 million for energy efficiency improvement in City-owned facilities for this year, with a coherent plan for maximizing future gains from doing more with less.
- An ambitious Green Fleets strategy that will result in the purchase of cleaner fuels and vehicles for the City's fleet.
- Cancellation of the City's support for the Island Airport Expansion.
- A first victory for transit in the new Official Plan, as the City moves forward on the St. Clair streetcar Right-of-Way.
- Major new research on the impacts of smog on health.
- An ambitious new Green Plan for Toronto Community Housing.

The low points for 2004 were:

- The lack of action on the TTC's Ridership Growth Strategy.
- No Green Power purchase by the City, and no clear direction to Toronto Hydro on becoming a green leader.

Previous Smog Report Cards

Year	Grade
1998	**D** (old Toronto) **F** (Metro)
1999	**D**
2000	**C-**
2001	**D**
2002	**D+**
2003	**C-**

Recommendation:

Toronto needs a new Smog Plan, which reflects the vision of the new Mayor and Council. Central to this plan should be:

- A commitment to ensure universal access to adequate, environmentally sound energy and transportation services for every resident of Toronto.
- Full implementation of the TTC's Ridership Growth Strategy, so that tens of millions more are taking transit each year.
- The toughest energy efficiency requirements for new buildings in North America.
- Making Toronto Hydro and Enwave into green energy champions.
- Supporting Toronto Community Housing in the implementation of its Green Plan so that it becomes the leading example of, and advocate for, green affordable housing in North America.
- A commitment to ensure universal access to adequate, environmentally sound energy and transportation services for every resident of Toronto.
- The expansion of Toronto's tree canopy to reduce the urban heat island effect.

Toronto Smog Facts:

The scientific understanding of air pollution is evolving rapidly. This year, major new studies were released on the health impact of air pollution in Toronto and on the impact of air pollution on children.

In July 2004, Toronto public health released a new report that revised its estimate of the health impact of air pollution in Toronto. These revisions were based a better scientific understanding of the relationship between air pollution and health, and on more recent data on air pollution levels in Toronto.

The study found that five common air pollutants (fine particles, ground-level ozone, nitrogen dioxide, sulphur dioxide and carbon monoxide) contribute to about 1,700 premature deaths and 6,000 hospital admissions in Toronto each year.[1]

In June 2004, the landmark Children's Health Study, funded by the California Air Resources Board (ARB), produced new findings on the effects of air pollution on children's health. This 10-year, $18 million study produced results showing how air pollution reduces children's lung growth and function, impacts respiratory health in asthmatic children, including new asthma cases, and contributes to increased school absences. The study followed more than 5,500 children at 52 schools in twelve Southern California communities from elementary through high school to track how different outdoor air pollution exposures affect respiratory health. The majority of children enrolled in the program as fourth-graders and were followed through high school.

The major findings of the study[2] were:

- Significant lung function deficits are most closely associated with exposure to nitrogen dioxide, atmospheric acidity, PM 2.5 and PM10. This decreased lung development may have permanent adverse effects in adulthood;
- Children living in high ozone communities, who are especially active, are up to three times more likely to develop asthma;
- Children living near roadways with high traffic experienced an increased risk for having asthma;
- Short-term exposures to elevated ozone levels are associated with a significant increase (up to 1.3 million per year) in school absences from both upper respiratory illness with symptoms such as runny nose and lower respiratory illnesses such as asthma attacks;
- Bronchitic symptoms are associated with exposure to nitrogen dioxide and the organic carbon fraction of PM2.5 in asthmatic children;
- The strength of the air pollution effects are generally greater in children who spend more time outdoors; and
- Children who move to cleaner communities with lower levels of PM have improvements in lung function growth rates. This means that even small reductions in air pollution can have immediate benefits to the long-term respiratory health of children living in polluted communities.

Other recent health study findings include:

- Elevated levels of fine particulate matter are associated with an increase in deaths due to lung cancer. The increased risk of mortality is roughly comparable to second hand smoke or obesity.[3]
- The Ontario Medical Association estimates that Toronto hospitals spend at least $128 million per year to treat the victims of air pollution and air pollution costs the Toronto economy roughly $130 million in lost productivity.[4]

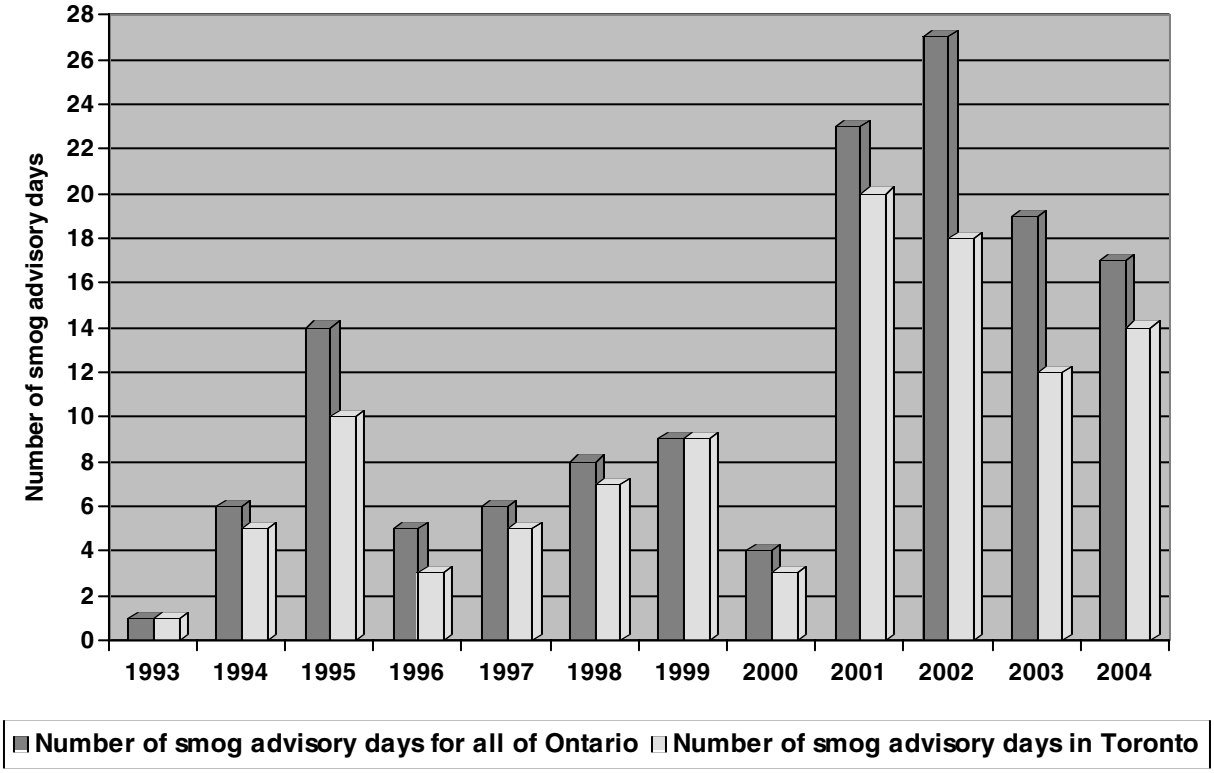
What has been happening to Air Quality in Toronto?

We were fortunate to have a mild summer this year, which has reduced the number of smog days due to high levels of ground level ozone. These levels tend to peak on hot days when nitrogen oxides and volatile organic compounds are 'baked' in the atmosphere to create ground level ozone.

Prior to August 2002, virtually all smog advisories were issued in response to high ozone levels. Yet since then, the provincial government has included particulate matter in the air quality index (the rating system which is used to issue smog advisories). Recent research has shown that particulate matter smaller than 2.5 microns is highly damaging to lungs and hearts, so its addition to the air quality index was a step forward and provides Ontarians with valuable information so they can take action to protect their health.

This does, however, mean that it is increasingly difficult to compare the number of 'smog days' between years. This year, many of the smog advisories (including most of the record eight smog days in September) have been issued in anticipation of high particulate levels, so the number of days is not readily comparable to pre-2003 figures. Therefore, we have included charts on the number of smog days and the long-term trends for ozone and nitrogen oxides, both of which have significant health impacts (long term trend data for particulate matter in Toronto is not available).

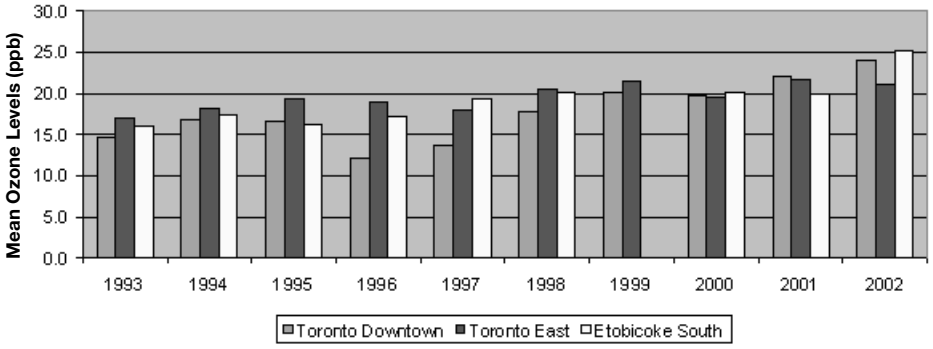
Number of Smog Advisory Days in Toronto and Province-wide (1993 – 2004)



Ground level ozone in Toronto

Ground level ozone is one of the principal components of smog. Ozone levels have been steadily rising throughout Ontario since 1980.[5] The table below shows the 10-year trend for air quality monitoring stations in Toronto.

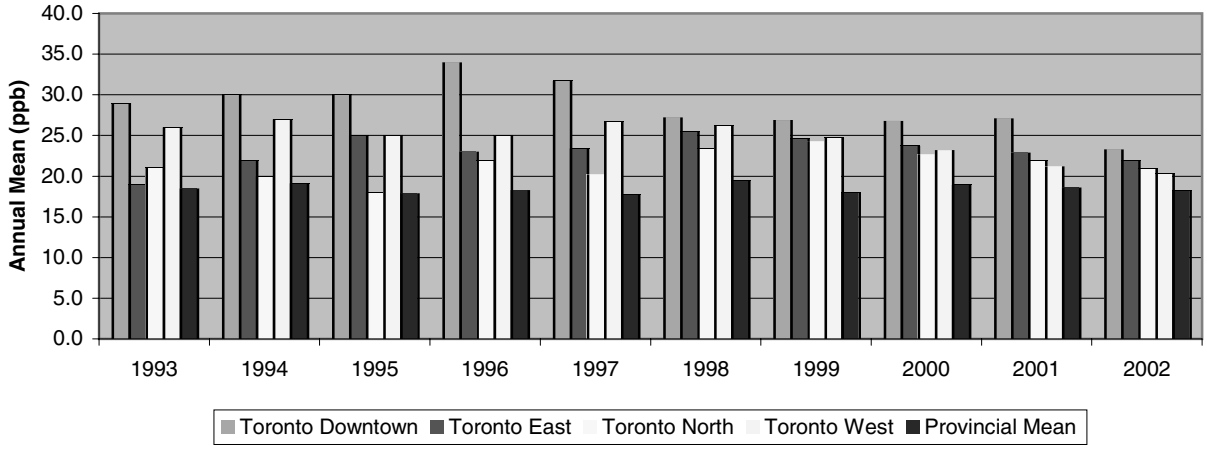
10-Year Trend for Ozone in Toronto



Nitrogen Dioxide levels in Toronto

Nitrogen dioxide is another pollutant with significant health impacts. NO_2 levels in Ontario fell significantly in the 1970s as the first clean air laws were enacted, but NO_2 levels in Toronto have been rising since 1981 and Toronto's air has higher levels of NO_2 than the rest of the province.[6] These rising levels are primarily due to more cars on the road and the increases in average distances traveled by each vehicle, as well as the increasing ownership of Sport Utility Vehicles, mini-vans and light trucks which (due to a loophole in the law) haven't had to meet the same clean air rules as other passenger vehicles. In the last ten years, NO_2 levels have decreased in Etobicoke and downtown, while increasing slightly in Scarborough and North York (although they are still highest at the downtown and Etobicoke measuring stations).

10-Year Trend for NO_2



Detailed Smog Report Card

LEADERSHIP

Recognize the Right of Torontonians to Clean Air

WHAT COUNCIL PROMISED

- Work to make Toronto's air clean and free of harmful levels of pollutants;
- Maintain and expand the City's leadership role in air quality;
- Continue its commitments to address global warming and depletion of the ozone layer; and
- Consider air quality impacts as a major criterion in transportation and land use planning.

WHAT WAS ACTUALLY DONE IN 2004

In the 2003 mayoral race, all of the major candidates were in favour of the TTC's Ridership Growth Strategy and investments in improving the energy efficiency of City operations. The election ultimately centred on the expansion of the Island Airport as a watershed issue which would determine what kind of city we want. Expansion of the Island Airport would not only have resulted in higher levels of air pollution in the downtown (short haul aircraft are the most polluting form of transportation), but would also have prioritised a high-cost, low-volume and expensive transportation infrastructure investment over low-cost, low-volume and low-polluting forms such as transit.

Since the election, mayor Miller and Toronto City Council have responded to the concerns about smog expressed at the *Listening to Toronto* sessions by acting quickly on many of the remaining elements from the City's Smog Plan. Details are provided in subsequent sections of this report card, but these measures include:

- $35 million for energy efficiency improvement in City-owned facilities for this year.
- The creation of a capital planning policy framework to ensure that in the future, the City makes all energy efficiency investments that will pay for themselves within 10 years.
- An ambitious Green Fleets strategy that will result in the purchase of cleaner fuels and vehicles for the City's fleet.
- Cancellation of the City's support for the Island Airport Expansion.
- The St. Clair streetcar Right-of-Way will go ahead, prioritizing transit over the private automobile in accordance with the Official Plan.
- The City is pushing the province to improve the building code so that new construction will be more energy-efficient and is moving forward independently in this area by working with builders and designers.

- Major new research on the impacts of smog on health published by Toronto Public Health.
- The new Tree Bylaw will protect trees on private property. Trees help filter the air and provide shade to reduce the urban heat island effect.
- The City has been pressuring the provincial government to ensure that if the Portlands Energy Centre natural gas-fired electricity generating station is built, that it meets the highest environmental standards.
- Toronto Community Housing Corporation – which is owned by the City and houses over 160,000 people – is implementing an ambitious Green Plan that will see energy savings of 20% in the existing building stock and new construction held to the high environmental standards.

On the other hand, the Front Street Extension, if it goes ahead with connections to the Gardiner Expressway, will be a step in the wrong direction.

GRADE: A+

Air Quality Strategy

WHAT COUNCIL PROMISED

In April 2000, City Council committed itself to developing a comprehensive Air Quality Strategy for the City of Toronto that would:

- assess the progress of and integrate current air quality initiatives;
- set priorities for City action;
- set targets where they do not now exist;
- consider air emissions and their impacts;
- work with Toronto's business community;
- facilitate monitoring and reporting to the public.

WHAT WAS ACTUALLY DONE IN 2004

Four years later, the formal Air Quality Strategy is still lost in a bureaucratic quagmire. The commitment to develop an Air Quality Strategy was made as part of the Environmental Plan, passed unanimously by Council on April 12, 2000. The 2002 and 2003 Smog Report Cards anticipated its imminent arrival, but there is still no sign of it.

Yet there has been significant action taken by the new Council on energy efficiency, fleets and transportation planning even in the absence of the formal Strategy. Given these recent developments, the Toronto Environmental Alliance is hopeful that the much-delayed Air Quality Strategy will be overtaken, or at least supplemented, by an ambitious Clean Air Agenda coming out of the Mayor's office.

GRADE: B

Clean Air Commitments

What council promised

Provide adequate resources for Clean Air commitments.

What was actually done in 2004

There is a long history of Council passing clean air measures, but not providing the resources necessary to implement them. In 2002, the City Auditor singled out action on air pollution as an area which needs more secure funding, since the existing budget process has failed to finance the necessary programs and investments in spite of the fact that air pollution has been identified as the most significant environmental and health risk to the City.[7]

This year saw an unprecedented commitment to invest in clean air initiatives:

- $35 million budgeted for energy efficiency, which will ultimately lower energy bills by at least $4.5 million annually, and a policy framework that should capture at least another $7 million in energy savings over the next few years.
- No fare increase for the TTC and modest service improvements.
- $3 million for implementation of the Bike Plan.
- $2.5 million for pedestrian improvements.
- $132,000 for the Better Building New Construction Program.
- $120,000 (of an $8 million total budget for the whole GTA) for Employee Trip Reduction programs.

Grade: B+

Work with Others

What council promised

Develop smog-reducing legislation, policies, programs and partnerships with business, other levels of government, non-governmental organizations, individuals and international agencies.

What was actually done in 2004

Toronto's Mayor and Council have aggressively pursued federal and provincial funding for the TTC. Toronto has partnered with both the Board of Trade and community groups in public campaigns to promote increased federal and provincial funding. Also, Council has decided to step aside from its membership in the Association of Municipalities of Ontario in response to a softening of AMO's position vis-a-vis provincial transit funding.

The City has been pressuring the provincial government to ensure that if the Portlands Energy Centre natural gas-fired electricity generating station is built, that it meets the highest environmental standards.

The centrepiece of the City's smog collaboration with the private sector continues to be the City-led Better Building Partnership, which has now retrofitted 440 buildings to make them more energy efficient, with another 96 buildings committed for retrofits. These retrofits have generated $140 million in economic activity, created 4,500 person years of employment, reduced energy costs by almost $20 million per year, and reduced greenhouse gas emissions cumulatively by over 700,000 tonnes.

Other jurisdictions (including London, England), are looking to copy the successful model established by the Toronto Atmospheric Fund (TAF) as a means of promoting municipal action on climate change and clean air.

The annual Toronto Smog Summit, and the Greater Toronto Area Clean Air Council that works throughout the year on joint smog-reducing measures by all three levels of government in the region, is a focal point for action and sharing successful strategies between municipalities, with Toronto playing a key role.

Toronto Public Health continues to produce ground-breaking research and play a leadership role in promoting clean air policies. This year they produced research on the interactions between smog and heat, smog and exercise, updated their Air Pollution Burden of Illness report (the 2000 edition of which initiated much of the current inter-jurisdictional work on air pollution in Toronto), and generated a comprehensive set of recommendations for actions by the provincial government to help reduce air pollution in the City. They continue to work with the federal government on a national health-based air quality index, and are working with researchers at the University of Toronto to sample indoor and outdoor air quality to assess the impact of following health protective advice during Smog Alerts.

The new Tree Bylaw will protect trees on private property. Trees help to filter contaminants out of the air and provide shade, which reduces the urban heat island effect.

GRADE: A+

Track Economic Benefits

WHAT COUNCIL PROMISED

Develop a Plan to monitor economic benefits that result from City's actions.

WHAT WAS ACTUALLY DONE IN 2004

This is being partially addressed through the capital planning framework and financing strategy for energy efficiency retrofits and the Green Fleets program (see below for details).

GRADE: B+

Action on Smog Alert Days

WHAT COUNCIL PROMISED

On forecast smog days, the City reduce its own emissions by ensuring that City staff suspend the following polluting activities:

- Pesticide spraying;
- The use of gasoline powered equipment (lawn mowers, leaf blowers, etc.);
- Use of oil-based paints, solvents, cleaners and other volatile organic compound (VOC) emitting products;
- All non-essential vehicle use;
- Street sweeping;
- Re-fuelling for all non-essential vehicles, at least until after dark;
- All road re-surfacing activities;
- Reset air conditioning units in municipal offices to warmer temperatures and allow staff to dress casually.

WHAT WAS ACTUALLY DONE IN 2004

This summer was relatively cool and wet, so the number of smog days was down from 2001 – 2003. Smog Alert Divisional Response Plans are being implemented by City departments, although they haven't been evaluated since 2000. There may need to be some changes made to these response plans to deal with smog advisories issued due to particulate matter levels, rather than ground level ozone.

Still, given that the most recent health studies show that there is no 'safe' level for the primary air pollutants and that most of the damage is done on days when the Air Quality Index is rated as 'moderate' or 'good', the emphasis must now be on reducing air pollution every day. Rather than attempting to change behaviour only when a smog day is predicted, the City should prioritize the implementation of a comprehensive strategy to reduce pollution every day.

City Council is to be congratulated for maintaining the landmark Pesticide Bylaw, which will reduce emissions of smog-causing volatile organic compounds.

GRADE: A

TRANSIT AND TRIP REDUCTION

Public Transit

WHAT COUNCIL PROMISED

Improving public transit is the single most significant thing the City can do to improve air quality in Toronto. Toronto's public transit system has been in decline, as it receives less governmental support than any other major city in North America; in the 1990 to 2002 period, transit fares doubled while bus and streetcar service levels declined by 10% and 20% respectively, primarily as a result of the withdrawl of funding from the provincial government and the absence of funding from the federal government.[8]

The City has committed to:

1. Pursue stable, long-term transit funding from senior levels of government.
2. Use its planning tools, as embodied in the Official Plan, to prioritize transit over cars as the City grows and develops. The 2003 – 2004 debate over the St. Clair streetcar Right-of-Way was the first significant debate on prioritizing transit through planning.
3. Improve public transit directly. The TTC's Ridership Growth Strategy – which proposes to increase the number of people riding transit by improving the frequency and quality of service and lowering fares – is the central means by which transit will be improved directly.

WHAT WAS ACTUALLY DONE IN 2004

First, and as noted above, Toronto's Mayor and Council have aggressively pursued federal and provincial funding for the TTC. Toronto has partnered with both the Board of Trade and community groups in public campaigns to promote increased federal and provincial funding. Also, Council has decided to step aside from its membership in the Association of Municipalities of Ontario in response to a softening of AMO's position vis-a-vis provincial transit funding.

Secondly, Council has approved the Environmental Assessment plan and financing for the St. Clair streetcar Right-of-Way, which represents a significant victory for public transit.

Yet the third element – the Ridership Growth Strategy – remains in limbo. The TTC approved the Ridership Growth Strategy in March 2003 and submitted it to Council for approval. Council has conditionally approved the Ridership Growth Strategy in whole or part on several occasions, but has failed to follow through on the actions required to meet the conditions (see Appendix A for details). It is now too late for the TTC to receive Council approval to implement the Ridership Growth Strategy in 2004. In fact, it is too late for full implementation to begin for January 2005.

Nevertheless, the Transit Commission did order improvements on 20 bus routes and these improvements were implemented in September. Also on the plus side, Council endorsed a recommendation from the Policy and Finance Committee that any operating surplus generated by the TTC would remain under TTC control through the Riders' Reserve Fund, so that the TTC won't be punished for doing well.

GRADE: B-

Employee Trip Reduction

What council promised

- Develop and implement a program to reduce commuting emissions from City employees.
- Work with area employers to develop a program to promote and facilitate smog-reducing commuting practices.

What was actually done in 2004

An Employee Trip Reduction program (e.g. support for car-pooling, biking, transit use and tele-commuting) for City employees has been proposed since 1997, but it is now finally in the planning stages and a coordinator should be hired in January 2005.

This program will start in North York and be linked to one of the two new Transportation Management Associations in Toronto planned as part of the broader GTA initiative. This GTA-wide initiative is an $8 million program (supported by Transport Canada and local municipal governments) to establish 9 new Transportation Management Associations over the next three years. Two of these will be in Toronto, in addition to the already existing Smart Commute Association of Black Creek, which was established in 2001 as a partnership between employers, local governments, transit agencies and non-profit groups in the northwest of the City to reduce single-occupancy vehicle commuting.

Grade: B

Energy Efficiency

Increase Energy Efficiency

What council promised

Increase energy efficiency in City operations and facilities by at least 15% by 2005.

What was actually done in 2004

In March 2004, the City established a capital planning framework and financing strategy for energy efficiency retrofits. The City created a $20 million fund for 2004, to be spent on improving the energy efficiency of City facilities. Projects approved to date which will be paid for out of this budget envelope include $10.2 million for arenas, $4 million for firehalls; finalization of the terms for a pools and community centre retrofit program are pending. There is also a $1 million project for replacing traffic lights with LED bulbs that is being paid for from outside of the $20 million envelope.

This framework also sets up a process for approving projects which can pay for the cost of the capital investment (and interest payments) out of anticipated energy savings within ten years. The Toronto Atmospheric Fund has already identified 14 projects, totalling $104 million, that would

save the City at least $11.5 million annually in fuel costs and reduce greenhouse gas emissions by over 100,000 tonnes.

In addition, the City-owned Toronto Community Housing Corporation is proceeding with a $14 million appliance replacement project, with more energy efficiency programs to come this Fall as they proceed with their Building Renewal Program.

A key issue for next year is what Toronto Hydro will do with the up-to $40 million available to it through the new provincial electricity rules for energy conservation projects. Council could direct Toronto Hydro to aggressively pursue energy conservation, beginning with low-income housing, a quarter of which is electrically heated. Residents of low-income housing are typically renters who live in poorly insulated housing and spend 6% of their pre-tax earnings on electricity, but lack the capital necessary to invest in energy efficiency. Landlords are generally unwilling to make these investments because they can pass on utility costs to the tenants, so there is a major role for our public utility to reduce electricity use and permanently reduce the unnecessarily high bills of those least able to pay them.

GRADE: A+

Encourage Improved Building Design

WHAT COUNCIL PROMISED

Encourage improved building design to increase energy efficiency and integrate environmentally-friendly techniques such as use of solar heating, waste heat recovery, green roofs, etc.

WHAT WAS ACTUALLY DONE IN 2004

The City asked the provincial government to improve the energy efficiency requirements of the Building Code so that the new buildings are at least 25% better than the National Energy Code.

In the interim, the City has launched the Better Building New Construction Program that will disseminate knowledge on energy efficient building practices to the construction and design sectors, and work with between 15 and 20 developers to demonstrate the benefits of higher energy efficiency standards.

Toronto Community Housing Corporation's redevelopment of Regent Park will be a showcase for environmentally-friendly building practices, and is projected to incorporate energy efficient design and building materials, geothermal energy, solar hot water heating, district heating with co-generation and green roofs.

GRADE: A

GREEN POWER

WHAT COUNCIL PROMISED

Purchase 25% of electricity for the City's own use from Green Power sources (wind, solar, micro-hydro and landfill gases) by 2005.

WHAT WAS ACTUALLY DONE IN 2004

No green power was purchased in 2004, in spite of the fact that the Energy Management Plan calls for 3.4% of the City's energy to come from green power sources in 2004. The City can claim, with some justification, that the provincial electricity system is in such disarray that they are waiting for the rules to be clarified but it will require a concerted push from Council to make this happen.

The City does, however, own its own energy companies: the municipal government wholly owns Toronto Hydro, which is one of the largest energy companies in the country with $2.49 billion in annual revenues, and owns 43% of Enwave, a district heating and cooling company. The City should be directing their companies to become green power leaders, and have taken some steps in this direction.

The Toronto Hydro Energy Services Corporation does own 50% of the wind turbine at Exhibition Place, and Toronto Hydro recently installed a 36 kilowatt solar photovoltaic system (the largest solar photovoltaic system in Toronto) at their Commissioner Street office. But it could do much more on both the green power and energy efficiency fronts. To make this a reality, Council should modify its shareholder directive to Toronto Hydro and direct it to become the leading green energy provider in the Province.

Enwave, a district heating and cooling company which is 43% owned by the City of Toronto, opened its landmark Deep Lake Water cooling project this year. This project uses cold energy from water drawn from deep in Lake Ontario to cool buildings in downtown Toronto, replacing electrically-powered air conditioning. Once the cold energy is extracted using heat exchangers, the water drawn from the lake continues on its regular route through the John Street Pumping Station for normal distribution into the City potable water supply.

Compared to conventional chillers, Deep Lake Water Cooling reduces energy usage by 75%. This frees more than 59 megawatts from the Ontario's electrical grid. Harmful ozone depleting refrigerants, CFC's and HCFC's are reduced and 40,000 tonnes of carbon dioxide are removed from the air, which is the equivalent to taking 8,000 cars off the road.

Buildings currently receiving Enwave's Deep Lake Water Cooling include the TD Centre, Royal Bank Plaza, Metro Toronto Convention Centre, Air Canada Centre, 151 Front Street West, Steam Whistle Brewery, 123 Front Street West, and One University Avenue, and the system has the capacity to cool 100 office buildings. The City intends to connect Metro Hall and Old City Hall up to the Deep Lake Water Cooling System.

This year, the Energy Efficiency Office of Works and Emergency Services also initiated a project with Hydrogenics of Mississauga, to help develop fuel cell technology into a low emissions industry. On August 24, 2004 they opened Canada's first renewable energy hydrogen refuelling facility at Exhibition Place. A three month supply of green power was purchased from Toronto Hydro (electricity from the wind turbine at Exhibition Place) and we hope that this purchase will be ongoing. Plans for a major energy efficiency retrofit, tri-generation project and 1 megawatt solar photovoltaic generator for Exhibition Place are also in the works.

GRADE: B

Fleets and Fuels

Green Fleets

What council promised

Substitute currently used fuels with less polluting alternative fuels, increasing fuel efficiency and optimizing motor vehicle technology.

Evaluate adopting a Green Fleet target to reduce smog causing fleet emissions by 50% by 2005.

What was actually done in 2004

In May 2004, Toronto City Council approved a Green Fleet Transition Plan to switch the City's vehicles and equipment to more environmentally friendly alternatives. In the 2004 – 2007 period, the City of Toronto will replace 84% of its new light duty vehicle purchases with alternatives such as natural gas and hybrid electric vehicles and will use more than 20 million litres of blended biodiesel fuel.

Green Fleet Transition Plan Highlights:

- Right sizing the City's fleet by reducing gasoline engines from eight to six cylinders where feasible.
- Certify Fleet Services' maintenance yard to ISO 14001 environmental standards.
- Replace 313 vehicles (84% of new light-duty vehicles) in the City's fleet with alternative fuel and hybrid gas/electric vehicles by 2007.
- Biodiesel blends will be used in all diesel-powered vehicles.
- Upon full implementation, greenhouse gas emissions produced by the City's fleet will be reduced by 23%, and smog-causing pollution will also be substantially reduced.
- The Plan promotes an affordable, renewable and sustainable plan to reduce carbon dioxide emissions from 10 to 15 million kilograms over the next four years.

The City and the TTC continue to buy low-sulphur fuels for their own use and the City used 800,000 litres of biodiesel in 2003 – the largest test of 50% biodiesel in Canada to date. The TTC recently began a biodiesel test for use in their vehicles.

Toronto Public Health has been doing monthly smog and idling training with municipal fleet drivers across the City as part of their training course. This will continue throughout the year with an emphasis that smog is a year round issue.

Grade: A

Cycling and Walking

Cycling

What council promised

Implement the Toronto Bike Plan, which will:

- double the number of bike trips in Toronto;
- decrease the number of bicycle collisions and injuries.

What was actually done in 2004

The expansion of the Bike Networks continues at half-speed. This year, 7 kilometres of bike lanes and 4.6 kilometres of bike paths were added, whereas 18 kilometres of lanes and 7 kilometres of trails were planned for 2003. This brings the total to 59 kilometres of bike lanes (out of a planned 485 kilometres by the time the Bike Plan is fully implemented) and 155 kilometres of off-road trails (out of the 283 kilometres planned for in the Bike Plan). The City added 2,371 new post-and-ring bike racks, although many of these are simply replacing the old parking meters that used to double as a place to lock up your bike but are currently being removed in favour of the new ticket dispensers.

In response to the slow roll-out of the Bike Plan, city staff proposed to extend the bike plan from 10 years to 20 years for implementation. City Council – with the vigourous encouragement of the cycling and environmental community – wisely rejected this solution and told staff to speed up implementation. The Bike Plan budget for 2004 was corresponding increased to just under $3 million, up from $1.5 million in 2003, but it would require a sustained investment of $5 – $6 million per year to fully implement the Bike Plan.

Grade: C

Walking

What council promised

Ensure that walking is a safe, comfortable and convenient form of urban travel.

What was actually done in 2004

Council adopted the Toronto Pedestrian Charter on October 29, 2002 as a reminder to decision-makers, both in the City and in the community at large, that walking should be valued as the most sustainable of all forms of travel, and that it has enormous social, environmental and economic benefits for the city. Having adopted this Charter, we now look forward to its implementation which has begun under the banner of the "We're all Pedestrians" campaign.

As part of implementation, the City has allocated $2 million per year for 10 years to completing the essential missing links of sidewalks; this year, they added 13 kilometres of sidewalks on arterial and collector streets. The City also allocated $500,000 for studies on how to improve pedestrian-safety at intersections, which has been used to launch 3 pilot projects. One of these

(the 'passive pedestrian detection' system which extends the walk signal if pedestrians are detected to still be in the crosswalk) was discontinued because the hardware proved to be unreliable. The 'zebra stripe' crossing (which paints zebra stripes through the pedestrian crossing to make it more visible to drivers) and the 'leading pedestrian interval' pilot project (which gives pedestrians a walk signal a few seconds before the drivers get a green light, with this 'head start' making them more visible to drivers) are ongoing. The pilots' methodology doesn't, however, fully incorporate the pedestrian perspective but rather relies on 'expert' views which may miss important elements of the 'feet on the street' perspective.

Related to this was the controversy over a proposal to use the 'Walking Security Index' developed by University of Ottawa professor Barry Weller to assess the safety of intersections for pedestrians. This index is a tool that would allow residents to rigourously quantify and rank intersections in their neighbourhood using 39 criteria (related to design, maintenance and operation), in order to make suggestions on how to improve pedestrian safety. The staff report on the Index argued that it can't be incorporated into the Transportation department's existing practice; Professor Weller has since critiqued the staff report. Pedestrian advocates, however, argue that the Index should be seen as a tool to be used by residents who want to work with the Transportation Planning department and point to the need for better communication.

Poor snow clearing and sidewalk maintenance are also important barriers to walkability, especially for seniors and individuals with impaired mobility. There is a strong need for better snow clearing at TTC stops, on bridges, and at intersections.

GRADE: B

PUBLIC EDUCATION AND COMMUNICATIONS

WHAT COUNCIL PROMISED

Launch a public education campaign on smog.

Promote the City's actions and challenge Toronto businesses to follow suit.

WHAT WAS ACTUALLY DONE IN 2004

The City's educational campaign, *20/20 The Way to Cleaner Air* provides useful tools for individuals to reduce their smog-causing emissions at home and on the road and has been working well. Results from this year include:

- A recent survey found that participants reduced their home energy use by about 20% after following the activities outlined in the *20/20* Planner, while drive-alone vehicle trips decreased by an average of about 14%. Approximately 75% of participants met or exceeded the One-Tonne Challenge (the challenge from federal government to each Canadian to reduce their personal greenhouse gas emissions by one tonne annually).
- Over the past year *20/20* entered into a new partnership with the Toronto District School Board's (TDSB) *Ecoschool* program. Twenty-four schools signed on to *20/20* and over 3,000 students

and their families received a *20/20* Planner to assist them in reducing their energy use, at home and on the road.

- City staff have been working with the Toronto Environmental Volunteers and the City's Cycling Ambassadors to reach people with the clean air message this year, which has resulted in an increase in the requests for the *20/20* Planner and the distribution of over 28,000 of each of the two new smog brochures.
- Thirteen companies have signed on to become a *20/20* workplace. They include: DuPont Canada; Enbridge Gas Distribution; Environment Canada (Ontario Region); Exhibition Place; Region of Peel; Toronto East General Hospital; Toronto and Region Conservation Authority; Town of Richmond Hill; Town of Oakville; Telus Mobility; Transamerica Life (Aegon); University Health Network (Princess Margaret Hospital, Toronto Western Hospital, and Toronto General Hospital); and York University.

The Clean Air Partnership (an offshoot of the Toronto Atmospheric Fund) produced the third edition of the *Clean Air Consumers Guide*, which went out to 730,000 homes in the GTA as an insert in the Toronto Star.

The City is also working with local businesses through the Better Building Partnership and the Repair Our Air fleet challenge to promote energy saving programs.

GRADE: A

APPENDIX

Chronology of Commission and Council Motions related to the TTC Ridership Growth Strategy (RGS)

TTC Commission Meeting – March 19, 2003

The Commission approved the Ridership Growth Strategy and also approved:

2 (d) in principle the timetable and funding for the Ridership Growth Strategy report,

2 (e) that the Commission direct the City's Executive Management Team to include full costing of the Ridership Growth Strategy in the 2004 Budget.

City Council Meeting – May 21, 22, 23, 2003

Motion to "implement a one percent property tax increase in 2004, 2005, and 2006, across the entire tax base, to be dedicated to the Subway Expansion Plan and Ridership Growth Strategy".

Motion fails, but is referred to the Policy and Finance Committee.

City Council Meeting – July 22, 23, 24, 2003

Receives for information a report from the Policy and Finance Committee (report #8, clause #35) that both the City Council Motion, noted above, and the TTC's Ridership Growth Strategy report, have been referred "*to the Chief Financial Officer and Treasurer for report thereon to the Ad Hoc Committee on the Five-Year Fiscal Plan*".

City Council Meeting – April 19, 20-23, and 26-28, 2004

City Council adopted the Policy and Finance Committee recommendation to adopt the 2004 Budget Advisory Committee recommendation that:

"*the TTC Conventional operating budget include $0.25 million net to commence the implementation of the Ridership Growth Strategy in 2004, conditional upon Council approval of such strategy during 2004, and that*

"*the 2004 Operating Budget for the TTC be further amended by requesting the TTC to advance commencement of the implementation of the Ridership Growth Strategy to an earlier date if ridership projections actualize better than anticipated thus creating budget room; and further, that the TTC review the matter at its earliest convenience.*"

City Council also adopted the following motions related to the TTC's 2004 Operating and Capital Budgets:

Motion 148: "*The Chair of the TTC report to the Budget Advisory Committee, through Policy and Finance Committee to Council, prior to the 2005 Budget process, on the Ridership Growth Strategy and its financial implications in the 2005 Budget.*

Motion164: "*the Chair of the TTC report to the Budget Advisory Committee, through Policy and Finance Committee to Council, prior to the 2005 Budget process, on the Ridership Growth Strategy and its financial implications for the 2005 and that the purchase of 100 additional buses in 2006 at $71.016 million for the Ridership Growth Strategy be deferred pending Council's consideration of the Strategy.*"

TTC Commission Meeting – May 12, 2004

The Commission adopted the following motions:

"*to adjust the ridership projection from 410 million rides in 2004 to 410.3 million rides and assign the additional $500,000 to the Ridership Growth Strategy*" and,

"*to implement the first phase of the Ridership Growth Strategy no later than January 1, 2005.*"

TTC Commission Meeting – July 14, 2004

The Commission received a presentation concerning staff discussions with the Chair and Vice-Chair to increase expenditures on RGS in 2004 by $450,000, resulting in a total planned expenditure on RGS implementation of $1.2 million in 2004. The Commission approved the following:

"*that staff be requested to submit a report for information to the City Budget Advisory Committee on the Ridership Growth Strategy and associated budget implications in 2005.*"

Subsequently, on August 24, 2004

"*the Chair and Vice-chair provided formal pre-approval of the expenditure of the additional $450,000 in 2004. This will be brought forward to be confirmed at the Commission Meeting of September 22, 2004.*"

City's Budget Advisory Committee – September 1, 2004

The Budget Advisory Committee had before it a City staff report which included the following recommendations:

It is recommended that City Council:

(1) approve the TTC's Ridership Growth Strategy (RGS) in principle;

(2) approve the hiring and training of additional operators required to implement the RGS phase one off-peak service improvements by January/February 2005 at an estimated cost of $500,000 in 2004;

(3) approve approximately 20% of the additional off-peak service on major routes scheduled for September/October 2004 at an estimated additional cost of $700,000 in 2004;

(4) approve the 2004 increased TTC operating expenditures of $1.2 million for the RGS to be funded from increased ridership revenues in 2004;

(5) approve that any 2004 operating surplus be allocated to the City Capital Financing Reserve Fund, in order to reduce increased debt financing requirements for the 2004 TTC capital program; and

(6) pre-approve an increase in gross expenditures for the TTC of $11 million in its 2005 operating budget for the implementation of the off-peak RGS service improvements effective January/February 2005.

They passed the following motion:

The Budget Advisory Committee recommended to the Policy and Finance Committee that:

(1) the recommendations in the Recommendations Section of the report (September 1, 2004) from the Chief Financial Officer and Treasurer be received; and

(2) the Chair, Toronto Transit Commission, be directed to not further implement the Ridership Growth Strategy until Council has approved the Ridership Growth Strategy.

ENDNOTES

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2 John M. Peters, Epidemiologic Investigation to Identify Chronic Effects of Ambient Air Pollutants in Southern California, (California Air Resources Board, 2004).

3 C.A. Pope, R. Burnett, M. Thun, E. Calle, D. Krewski, K. Ito and G. Thurston, ALung Cancer Cardiopulmonary Mortality and Long-Term Exposure to Fine Particulate Air Pollution@, *Journal of the American Medical Association* (March 2002).

4 Ontario Medical Association, *The Illness Costs of Air Pollution in Ontario*, (OMA: June 2000).

5 Ontario Ministry of the Environment, *Air Quality in Ontario: 2002* Report (Queen's Printer for Ontario, 2004).

6 Monica Campbell, Ph.D., David Pengelly, Ph.D., and Monica Bienefeld, M.HSc., *Air Pollution Burden of Illness in Toronto: 2004 Summary*, (Toronto: City of Toronto, 2004), p. 3.

7 City Auditor, *Environmental Issues and Audit Plan* (report to City of Toronto Audit Committee, May 30, 2002).

8 Steve Munro and the Rocket Riders, *Transit's Lost Decade: How Paying More for Less is Killing Public Transit*, (Toronto Environmental Alliance, April 2002).

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