

Free Transit on Smog Days: Clearing the Air

Organization

City of Windsor — Transit Windsor

Status

Started and completed 2003

Overview

Windsor has experienced an increasing frequency of days with poor air quality due to smog. To demonstrate its commitment to improving air quality, in 2001 City Council approved the concept of offering free transit service on smog days.

A pilot project was prepared for the 2003 summer smog season. The City provided \$30,000 to cover Transit Windsor's operating costs on free transit days, an amount that was matched by Environment Canada. This funding enabled four free transit days in July 2003.

In response to the issuance at 2:00 p.m. of a local smog advisory, Transit Windsor used the media to relay its announcement that the following day would be fare-free on all regular routes within the city.

Transit Windsor observed significant ridership increases of up to 50% on free transit days, and received positive public feedback and media coverage.

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Resources

- Transit Windsor
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Community context

The City of Windsor, with a population of about 210,000, sits across the Detroit River from the state of Michigan. Much like neighbouring Detroit, Windsor is a major automobile manufacturing centre — six of its eight largest private employers are members of the auto industry. Other notable economic drivers include advanced technology, consumer and industrial products, agriculture and food processing.

The Windsor census metropolitan area (CMA) includes adjacent municipalities and has a population of over 305,000, making it the 15th largest metropolitan area in Canada. Statistics Canada expects the Windsor CMA to have the third-highest rate of population growth among Canada's metropolitan areas from 2001 to 2006.

Transit Windsor is an agency of the City of Windsor that reports to a board of directors while taking its financial direction from City Council. It carries about 6 million passengers annually on almost 100 buses, with a revenue/cost ratio of 60%. Adult transit fares in 2003 were \$2.25 in cash, \$19.50 for 10 tickets, and \$72 for a monthly pass.

Transit use in Windsor dropped by about 40% between 1987 and 1997, although it has since stabilized. While 90% of Windsor CMA workers commuted by car in 2001, just 3% took transit. This compares to commuter transit shares of almost 10% in Victoria, B.C., and just over 7% in Oshawa, Ont., two communities of a similar size.



Policy context

In September 2001, Windsor Council adopted the following resolution by a margin of five votes to four: "That APPROVAL BE GIVEN IN PRINCIPLE to the allocation of \$30,000 for Transit Windsor to conduct a pilot project to offer free transit on smog action days subject to a further report for the 2002 Budget Sessions on the availability of public and private sector funding to

assist in providing the program.” In making the decision, Council recognized that cars and light trucks emit six of the seven major air pollutants, and that transportation is the leading regional source of greenhouse gas emissions.

Windsor works to improve local air quality through its participation on the Windsor-Essex County Air Quality Committee. That group includes representatives of other local governments, industry, labour, and environmental and health groups. It has prepared an air quality action plan that recognizes the need for financial incentives, public education and improved service to help transit attract travel from the auto mode. The action plan is intended to influence, rather than prescribe, local government policy.

Rationale and objectives

Windsor’s air quality is a significant public issue. Contributing factors include the city’s large manufacturing base, busy border crossings, and proximity to Detroit and the Ohio Valley. The frequency of poor air quality days in Windsor is generally increasing. There were 14 days of poor air quality in 2000, 19 in 2001 and 23 in 2002.

While much of Windsor’s polluted air is generated in the United States, the city felt it was important to demonstrate the value of local action in raising awareness and reducing pollution. Transit Windsor did not set firm ridership objectives for the free transit initiative. Rather, as a pilot project, one of its purposes was simply to quantify the response as a guide for future efforts in Windsor or other Canadian cities.

A number of American transit systems in the Delaware, Pennsylvania and Washington, D.C. areas have offered free transit on “Code Red” days, when public alerts are issued about expected high concentrations of ground-level ozone, a key ingredient of smog. At least in some cases, Code Red days have led to significant increases in transit use (e.g. 40% in Delaware and up to 20% in Virginia).

Actions

Following City Council’s 2001 approval in principle of funding for a free transit pilot project, the City approached the federal government to solicit matching funds. Environment Canada agreed to a \$30,000 contribution, and the pilot project was set to run in the summer of 2003.

Advance promotion. In advance of Windsor’s typical smog season, Transit Windsor distributed promotional posters (see accompanying image) and flyers to key destinations including its sales outlets, information stands, community centres, libraries and large employers. It also placed an advertisement (see accompanying image) in the local daily newspaper for three successive days and in printed route schedules. These efforts fulfilled one of Environment Canada’s funding conditions — that Transit Windsor must spend a small portion of the federal

contribution directly on project-related public awareness measures.

On 30 June 2003, near the time that smog alerts usually begin, Transit Windsor issued a media release announcing the pilot project. It notified the public that free transit would be offered on as many subsequent smog days (likely four) as funding allowed.



Newspaper and route schedule notice



Promotional poster

Implementation. When an Ontario community's air quality has a high probability of deteriorating to poor (i.e. an air quality index reading of 50 or greater), the province's Ministry of the Environment issues a smog advisory. The purpose of the advisory is to warn vulnerable individuals and to encourage others to reduce their smog-causing emissions. For the free transit pilot project, Transit Windsor checked daily with the Ministry of the Environment just before 2:00 p.m. to see if the Ministry planned to issue a smog advisory for the next day. If so, Transit Windsor immediately asked media outlets to announce that transit service would be free throughout the following service day (from 5:30 a.m. to 12:30 a.m.) on all routes other than charters and tunnel buses to destinations in Detroit.

On the morning of each smog day, Transit Windsor placed special canvas covers on the fareboxes of all buses operating in regular service, adding a decal that explained the covered boxes and identified the project's municipal and federal sponsors. While planners did not proactively adjust service schedules to provide additional capacity, operations staff closely monitored demands and responded quickly to actual needs. Drivers played an important role in promptly reporting instances of overcrowding, enabling dispatchers to add buses to key routes.



With its available funding of \$60,000, Transit Windsor was able to offer free transit service on four smog advisory days in 2003 (Thursday, July 3; Friday, July 4; Friday, July 25; and Saturday, July 26). On the day before each of these dates, Transit Windsor issued a media release confirming that transit would be free the next day. When each smog advisory period was over, Transit Windsor issued another media release on the day before it resumed regular fare collection.

Transit Windsor issued two other media releases during the pilot project. The first was on July 4, following the first free transit day, to announce preliminary ridership results and assure the community that its response was both measured and valued. The second additional media release was on July 31, after funding for the pilot project funding had been exhausted, noting that a smog advisory was in effect for the next day but that free transit service could not be offered due to a lack of funds.

Results

Windsor residents responded to the free transit pilot project with enthusiasm. On the very first day of free service, transit ridership increased by 36% over the previous Thursday, 28% over the system's average weekday ridership, and 45% over the equivalent day of the previous year. Over the four smog days that free transit was offered, the typical year-over-year ridership increase was in the order of 50%. Demand on some routes exceeded planned capacity, although additional buses were pressed into service when required (even after midnight, in some cases) to meet the needs of riders. These ridership increases exceeded the expectations of planners, who had informally anticipated a jump of perhaps 5%.

Transit Windsor was very pleased with the pilot project results, and interpreted them as evidence of a high degree of public understanding of Windsor's air quality problem and the role of transit in remedying it. The transit agency was also overwhelmed by the extensive public feedback it received, and by the numerous enquiries from media (including local and national print, radio and TV outlets) and other municipalities. Negative responses were more limited than expected, and came only from a small number of passengers who had bought monthly passes and felt the project did not benefit them — but who withdrew their objections once they understood that the project's purpose was to attract new riders, not to benefit existing riders.

Participants

The City of Windsor and Environment Canada each provided 50% of the pilot project funding, and Transit Windsor implemented the project. Most of the transit agency's departments were involved in some way, although marketing staff experienced the greatest increase in workload arising from the project.

Resources

Before the pilot project began, Transit Windsor estimated the cash cost (i.e. foregone revenue from cash fares only) of providing free transit on a weekday to be about \$15,000. Saturdays would have about three-quarters of this cost due to their lower service levels, and Sundays significantly less. Therefore, the \$60,000 in funding provided by the City of Windsor and Environment Canada was expected to replace the lost revenue from no more than four days of free service, unless two or more smog days fell on Sundays.

After the first two smog days in July 2003, Transit Windsor unsuccessfully requested additional funding from Environment Canada and the Province of Ontario. Using the 23 total smog days in 2002 as a basis, it estimated that the additional funds needed to carry the pilot project through the end of the 2003 smog season would be about \$285,000 (i.e. for 19 service days at \$15,000 in foregone revenue each day).

Timeline

September 2001. Council approval in principle of funding for free transit pilot project

June 2003. Announcement of pilot project to commence that summer

July 2003. Provision of free transit on four smog days, exhausting available funding

Lessons learned

Important lessons arising from Transit Windsor's free transit on smog days include:

- Where public awareness of air quality issues is high and transit capacity exists, significant daily ridership increases can be expected — up to 50% in Windsor's case.
- Public and media attention is highly favourable, making free transit days a potentially valuable public relations tool. If the media are engaged, additional promotion may not be worth the effort or expense.
- Radio and television outlets are more effective than daily newspapers in getting out the free transit message ahead of smog days.
- Media outlets should be advised that government smog advisories issued after a certain hour, without an accompanying media release from the transit operator, do not mean that transit will be free on the next day. Smog advisories issued too late in the afternoon or evening do not provide enough lead time for the free transit message to get out to the public through media channels.
- The success of a short-term project may raise public expectations for ongoing or repeated implementation in future years. Possible strategies for meeting this expectation should be investigated as soon as possible.

Next steps

Transit Windsor is pursuing funding to conduct a second phase of this project in 2004 that would help confirm whether ridership gains on smog days are sustainable.

All images courtesy the City of Windsor