

# **Fuel Prices and Municipal Fuel Escalation Clauses**

**E & E Project #187**

4R's Waste  
Consulting Inc.  
September 26, 2006  
Amended October 22, 2006

*This Project has been delivered with the assistance of Stewardship Ontario's Effectiveness and Efficiency Fund, a Fund financed by Ontario municipalities and stewards of blue box waste in Ontario. Notwithstanding this support, the views expressed are the views of the author(s), and the Association of Municipalities of Ontario and Stewardship Ontario accept no responsibility for these views.*

*Copyright © 2006,*

*All rights reserved. No part of this publication may be reproduced, recorded or transmitted in any form or by any means, electronic, mechanical, photographic, sound, magnetic or other, without advance written permission from the owner.*

## **Project Description**

Stewardship Ontario engaged the services of 4R's Waste Consulting Inc, (The Consultant) under agreement dated August 24, 2006, to report on municipal fuel escalation clause options. As part of the project The Consultant was to:

- Contact 8 to 10 municipalities and obtain copies of fuel escalation clauses;
- Determine how each of these municipalities administers their respective clause;
- Obtain an opinion about the effectiveness and ease of administration of the respective clauses;
- Research fuel cost trends over the last 18 months (January 1, 2005 – June 30, 2006);
- Present the information in a report suitable for distribution in electronic format.

## **Data Collection**

The Consultant contacted 43 municipal recycling programs in Ontario, reflecting the broad range of recycling programs in the Province, in order to obtain information on fuel prices paid for fuel for their own recycling vehicles, or to inquire if they had a fuel escalation clause in their recycling collection contract with a private sector contractor. Many of the municipalities included on the contact list had, within the last 2 years when fuel prices first began to rise exponentially; either entered into a new recycling contract or negotiated an extension to their previous recycling contract. A list of the programs contacted and their responses to the survey are attached as Appendix "A".

Of the total 43 programs that were contacted, 19 did not respond to the e-mails and voice-mail messages from The Consultant. Of the 24 programs that did respond, 15 do not have a fuel price surcharge clause in their recycling collection contract. However, one of the municipalities from this group has a provision in its contract that permits the contractor to request an increase above the Consumers Price Index (CPI), published by Statistics Canada, if there are extenuating circumstances that impact the cost of providing the service. In this case, the contractor did request an adjustment to the contract price based on the increase in fuel prices in 2005. The request was approved by municipal Council and the contractor was awarded an increase of 5.85%, or approximately 2.5 times the CPI index in 2005. The remaining 9 municipalities have a fuel surcharge clause in their recycling collection contract, and all of them provided a copy of the clause from their contract.

The Consultant also contacted the Ontario Waste Management Association (OWMA) and a number of the private sector waste companies in the Province to obtain fuel surcharge clauses that they might have in their contracts. There was no response from the OWMA. However, 3 private sector collection contractors responded. Two of these provided the fuel escalation clause from their contract with a municipality originally contacted directly by The Consultant, but who had not responded. The third private sector contractor provided a fuel escalation clause for a municipality not on the original contact list.

A table summarizing the number of respondents and their identity is available in Schedule A.

## Fuel Prices

Five municipal recycling programs, geographically distributed across the Province, provided tables of the price they paid for diesel fuel over the period of January 1, 2005 to June 30, 2006 for use in their own recycling truck(s). Where data was available, July and August 2006 prices were also provided. In addition, and as a basis for comparison, the Petro-Canada Toronto Rack Rate for Diesel Fuel, adjusted to include taxes, was used to compare with reported municipal fuel prices. The details are contained in Schedule "B" of this report. Average diesel fuel prices over the period are shown in a Bar Graph attached as Schedule C.

In general, diesel fuel prices were below 70¢/litre in January 2005. Only the Toronto Rack Rate and the average price paid by the City of Kingston were above 70¢/litre, and they both had an average cost of diesel fuel in January 2005 of 72.71¢/litre. While prices fluctuated over the course of 2005, diesel fuel prices rose steadily throughout the year until November 2005 when fuel prices declined across the board with a month over month average decrease of -7.5%. There was then a slight month over month increase again in December 2005.

On average, diesel fuel prices across the Province increased by 14% from January 2005 to December 2005. This can be compared to the *Consumer Price Index (CPI) All Canada, All Items Index* published by Statistics Canada that is used by many municipalities as the adjustment factor in their recycling contracts. The CPI was 2.2% for the period January 1, 2005 to December 31, 2005 (the Ontario All Items Index CPI published by Statistics Canada for this same period was also 2.2%). The CPI Energy Index published by Statistics Canada for this same time period was 7.1%. Diesel fuel prices across the Province were therefore approximately 6.4 times higher than either the All Canada or All Ontario CPI, and were approximately double the Energy Index published by Statistics Canada.

Fuel prices for the first 6, or 8, months of 2006 have followed the same trend as in 2005, with a steady month over month increase in prices, reaching a peak of almost 94¢/litre in August 2006 in Kingston. While official records were not obtained, diesel fuel prices started to decline in September 2006. While prices had increased an average of 5% from January 1, 2006 to June 30, 2006, prices in September 2006 are back where they were in June/July 2005. It is, therefore, difficult to predict what the year over year increase will be for diesel fuel in 2006.

It should be noted that while there has been a significant increase in fuel prices since February 2005, the impact of that increase on the overall gross cost of a municipal recycling program is minimized by the percentage that fuel purchases represent in a municipal recycling collection budget. For example, in Essex-Windsor, fuel costs represent 5.5% of the gross cost of the recycling program. A 10% increase in fuel costs would add approximately \$25,000 or 0.55% to the gross cost of their recycling program. Another example is the Bluewater Recycling Association, which services a very large geographic area covering all or parts of four counties in southwestern Ontario and their fuel costs represent approximately 11% of their gross program cost. A 10% increase in fuel prices would add approximately \$43,000 or 1.1% to the gross cost of their program.

## **Fuel Escalation Clauses**

As indicated, contract fuel escalation clauses were obtained from nine municipal recycling programs, and three private sector contractors that provide collection services to municipalities. The majority of the fuel escalation clauses are from large recycling programs that collect  $\pm 30,000$  tonnes of recyclables per year. One clause came from a mid-size urban program collecting just over 10,000 tonnes of recyclables per year, and two came from rural regional programs collecting  $\pm 4,000$  tonnes.

The details set out below are direct quotations from the municipal recycling collection contracts:

### **NORFOLK COUNTY**

#### Price Adjustments

To accommodate the possible fuel adjustments then the County will follow this process to arrive at new prices for 2008 and 2009. The percentage difference between 2006/2007 and 2008 prior to the fuel adjustment will be applied to the new adjusted price for 2006/2007 to get the new adjusted price for 2008. Accordingly, the percentage difference between 2008 and 2009 prior to the fuel adjustment will be applied to the new adjusted price for 2008 to get the new adjusted price for 2009.

#### Fuel Extras or Rebates

The County will maintain a method to calculate any extras or rebates due to the fluctuation in the price of fuel. The website indicated below will be used to determine the Base Rate and the New Rate. The County reserves the right to replace this website with one that provides the same information or any other method that would be acceptable to all parties. Should this happen then the Base Rate used at the start of this contract will continue to be used for all the calculations.

Website: [www.online.petro-canada.ca/eng/prodserv/fuels/rack/rck-prc-rsIts.aspx?Prod=2&Freq=1](http://www.online.petro-canada.ca/eng/prodserv/fuels/rack/rck-prc-rsIts.aspx?Prod=2&Freq=1)

This calculation will include the following:

1. **KILOMETRES TRAVELLED**  
This is the actual number of kilometres traveled as per the approved weekly reports submitted.
2. **RATE OF CONSUMPTION**  
This is the average constant rate of consumption for all vehicles as determined by what you have indicated on the Form of Tender KM/LITRE.
3. **BASE RATE**  
Low sulphur weekly average rack price per litre for the City of London as of October 22, 2006 as indicated on the above website.
4. **NEW RATE**  
The low sulphur weekly average rack price per litre for the City of London for the week as indicated on the above website. This rate will be used for all approved mileage as per the weekly-submitted vehicle reports.

#### **4R's Comments on Norfolk Fuel Escalation Clause**

*As the fuel adjustment factor does not come into effect until the 2008 and 2009 contract years, the County of Norfolk could not comment on the ease of administration of the clause or the effectiveness of the clause in addressing the issue of fuel price increases.*

*The index used in the clause provides a fuel price exclusive of the 14% provincial fuel tax as well as both GST and PST, so it would not reflect the price of fuel paid by their contractor.*

#### **REGION OF PEEL**

##### **2.6 Adjustment of Waste Collection Prices as at the Commencement Date for Waste Collection Services**

It is acknowledged that the Unit Prices set out in Section 2.5 are, in part, based on the February 2005 diesel fuel price of \$.627 per litre, and that diesel fuel represents 6.2% of the Unit Prices. It is the intention of the parties to adjust the Unit Prices in such a manner as to reflect the change in the actual price of diesel fuel as at the Commencement Date for Waste Collection Services. Accordingly, the Unit Prices under this Agreement shall be adjusted (increased or decreased) effective April 1, 2006 by adjusting 6.2% of the Unit Prices set out in Section 2.5 in accordance with the percentage change (increase or decrease), if any, in the New York Harbour rack rate for no. 2 diesel fuel from February 2005 to March 2006 (it being agreed that the price of diesel fuel as at February 2005 shall be deemed to be \$.627 per litre), as published by Platts Oilgram (or by such other publisher as may be agreed upon between the parties in writing).

#### **Second Fuel Formula**

##### **4.2 Monthly Fuel Adjustment**

- (b) The parties acknowledge and agree that the Unit prices are based on the cost of fuel of .77¢ per litre (the "Base Fuel cost"), and that fuel represents 14% of the Contractor's Unit Prices. The following procedure shall be utilized by the parties to calculate the adjustment to the Unit Prices for changes in fuel costs, on a monthly basis.
- i. Commencing April 30, 2006 and at the end of each month during the Term, the Contractor shall provide the Region with the average actual cost paid by the Contractor for fuel that the Contractor has utilized for the purposes of providing services to the Region pursuant to this Agreement for the relevant month (the "Actual Fuel Cost"), together with all supporting documentation that may be requested by the Region to substantiate such costs;
  - ii. The Region shall then calculate the adjusted unit Prices for the relevant month (the "Adjusted Unit Prices") pursuant to the following formula:

$$\text{Adjusted Unit Price} = \text{Unit Price} \times 86\% + [\text{Unit Price} \times 14\% \times (\text{Actual Fuel Cost} / \$0.77 \text{ per litre})]$$

As for the administration of the two Peel fuel escalation clauses, Alma Martino, Technical Analyst, Waste Collections & Processing, Region of Peel stated “It is definitely easier to administer the contract where we can incorporate the fuel surcharge into the unit price and are required to review the unit price with the fuel surcharge upon anniversary.”

#### **4R’s Comments on Peel Fuel Escalation Clause**

*The first fuel escalation clause from the Region of Peel relies on a private subscription-based source in order to make the adjustment calculation. The annual cost of a subscription to Platts Oilgram is \$2,585.00. The second fuel adjustment clause does appear to provide adequate compensate to the contractor for fuel increases. Assuming a Unit Price of \$100 at the beginning of the term, and a fuel price in the next month of \$0.80/litre, the Adjusted Unit Price using the formula set out in the fuel escalation clause would be \$100.54. This would represent a 0.54% increase to the Unit Price and the \$0.03/litre increase in fuel represents a 0.54% in the contractor’s cost of \$14 out of the \$100 original Unit Price.*

#### **CITY OF OTTAWA**

.5 The City of Ottawa will make fuel adjustments to the monthly payment owing the contractor based upon changes to the contractor’s actual fuel costs. The total fuel used by the contractor for a given month for all collection vehicles, and the cost for this fuel, for each calendar month will be forwarded to the City by the contractor in spreadsheet. The fuel price must be substantiated by an official document from the vendor of the fuel indicating the bulk purchase price for the period of the fuel agreement with the contractor. Failure to provide an official fuel document satisfactory to the City will result in no payment adjustment, until such time as an acceptable document is produced. In the event that fuel is purchased in smaller quantities, the contractor must submit an Excel document to the Contract coordinator of Solid Waste indicating the number of litres purchased, date of purchase and price per litre paid for every purchase, each month.

A payment adjustment per litre of diesel fuel will be established for each month when the weighted average fuel cost per litre for the current month differs by more than \$0.05/litre from the weighted average fuel cost per litre for the month of June 2006 for that contractor.

- (i) When the fuel cost adjustment differential is equal to or less than \$0.05/litre, there will be no payment adjustments for that month.
- (ii) When diesel fuel prices rise more than \$0.05/litre difference, the payment adjustment to be paid to the Contractor is the result of subtracting the fuel cost per litre in effect June of 2006 minus the \$0.05/litre float.
- (iii) When diesel fuel prices fall more than \$0.05/litre difference, the payment adjustment made in the favour of the City is the result of subtracting the fuel cost per litre in effect for the month when the service was completed plus \$0.05/litre from the fuel cost per litre in June 2006.

Cam Neale, Project Coordinator, Waste Diversion and Processing for the City of Ottawa, could not comment on the administration of the fuel adjustment clause stating: "At this point we are not in a position to comment on the ease of administration as there has been no occasion for compensation either way."

#### **4R's Comments on City of Ottawa Fuel Escalation Clause**

*It should be noted that the City of Ottawa recycling collection contracts do not include a CPI or other annual adjustment index on the contract price. The only adjustment to the contract price is the Fuel Adjustment Clause.*

### **WATERLOO REGION**

#### **Fuel Adjustment**

The Region is committed to providing a fair bidding process for all bidders and to removing unreasonable risk as a result of highly variable fuel prices. The Region will be assuming the risk for fuel prices above the 43¢ per litre diesel fuel threshold (based on 1997, 1998, 1999 average Region Price). Rebates for fuel used will be provided to Contractor(s) based on the following formula:

- Contractor(s) are only responsible for diesel fuel costs up to 43¢ per litre and should prepare bid prices based on this commitment.
- The Region currently purchases diesel fuel as part of a large purchasing co-operative with prices adjusted on a monthly basis (October 2000 price 68.5¢/litre).
- The Region will pay the Contractor(s) the difference between the Region's current monthly price per litre for diesel paid by the Region (if above 43¢/litre) and the arbitrary 43¢ per litre cap on Contractor responsibility for diesel fuel usage based on the Contractor's binding projection in Section B.
- For example, if the Region's cost for diesel fuel in a particular month is 75¢ per litre, then the Region would pay the Contractor  $(75¢ - 43¢) = 32¢$  for the monthly diesel fuel usage as provided by the Contractor in Section B.
- Likewise, if the Region's cost for diesel fuel drops below 43¢/litre the Region will receive a credit based on the difference between 43¢/litre and the Region's actual cost for fuel usage as provided by the Contractor in Section B.
- The Contractor is bound by the projections of fuel usage provided in Section B over the entire term of the contract. The fuel usage projection will be used as the basis for actual contract payments, subject only to the adjustment provisions of Section 39.

#### **4R's Comments on Region of Waterloo Fuel Escalation Clause**

*The Waterloo fuel escalation clause was provided by its private sector contractor. There was no reply from the Region itself, so there is no indication on the ease of administration or effectiveness of the clause. Given current fuel prices, however, the Region of Waterloo is bearing a significant portion of the risk for any changes to fuel prices and would be paying the contractor an adjustment of approximately half of the current diesel fuel price.*

## CITY OF KINGSTON

### 1.9.3 Fuel Cost Adjustment (FCA)

The City of Kingston will make adjustments to the monthly payment owing the contractor to compensate for fluctuations in the price of diesel fuel only, based upon changes to the Ministry of Transportation *Fuel Cost Adjustment Index* (FCAI). The index will be as calculated by the Ministry of Energy and published monthly in the Ministry of Transportation *Contract Bulletin* for each calendar month and will reflect the previous month's prices. For FCAI see:

<https://www.ragsb.mto.gov.on.ca/login/rags.nsf/English/Graphic/viewContractBulletin?OpenForm>

An FCA per litre for diesel fuel will be made each month when the FCAI for the month differs by more than five (5) cents per litre from the FCAI for the month of the RFP closing date as follows:

1. When the FCAI differential is equal to or less than five (5) cents per litre there will be no FCA for that month;
2. When diesel fuel prices rise more than five (5) cents per litre as per the FCAI, the FCA per litre will be the FCAI for the month being invoiced less that of the RFP closing, less five (5) cents, paid with the monthly payment.
3. When diesel fuel prices fall more than five (5) cents per litre as per the FCAI, the FCA per litre will be the FCAI for the month being invoiced less that of the RFP closing, plus five (5) cents, withheld from the monthly payment.

For the purposes of the calculation of the FCA, the contractor must provide with their monthly invoice for payment detailed diesel fuel consumption figures for the previous month. The VCA will be calculated using the following formula:

$$FCA = DCF \times (FCAI (m) - FCAI (rfp) +/-5) / 100$$

FCA = fuel cost adjustment

DFC = diesel fuel consumption

FCAI (m) = fuel cost adjustment index for the month being invoiced

FCAI (rfp) = fuel cost adjustment index for the month of the RFP closing date.

Examples:

FCAI (rfp) = 92.00

DCF = 10,000 litres

- (1) if FCAI (m) = 98.50, then  $FCA = 10,000 \times (98.50 - 92.00 - 5) / 100 = \$150$
- (2) if FCAI (m) = 85.50, then  $FCA = 10,000 \times (85.50 - 92.00 +5) / 100 = (\$150)$

As for the administration of the fuel escalation clause, John Rhodes, Supervisor, Solid Waste Disposal for the City of Kingston provides the following comments.

- We maintain a spreadsheet for contractor payments that breaks out various charges, so for record keeping it is just a matter of keeping track of what you want;

- It is necessary to check monthly as to the MTO Fuel pricing and keep a record over time;
- The key is to establish a base price, in our case November 2005 when the contract was closing, so the contractor can base collection pricing on known costs and be assured that large increases (or decreases) in fuel costs protect both parties over the course of the contract;
- Our contractor is required to support their invoice and calculations for any fuel adjustment by providing a copy of fuel invoicing showing consumption for the month in question;
- So it isn't particularly taxing or heavy in time administratively, and the payback (being able to add fairness to the contract) is well worth it.

#### **4R's Comments on City of Kingston Fuel Escalation Clause**

*The Kingston fuel escalation clause relies on a publicly available government source to calculate the fuel adjustment index providing transparency to all parties. While the formula looks complicated with the various acronyms, the actual calculation is simple and provides for both an increase or decrease in fuel prices.*

#### **CITY OF ST. CATHARINES**

##### Fuel Surcharge

A fuel surcharge will be added if the retail price for diesel fuel in St. Catharines rises above \$0.90 per litre as established by the Weekly Pump Price Survey conducted by MJ Ervin Associates. The weekly survey can be found on the web at [http://mjervin.com/WPPS\\_Public.htm](http://mjervin.com/WPPS_Public.htm). We will establish any fuel surcharge as one third of the average fuel price increase above the \$0.90 per litre threshold during the preceding two week billing period.

#### **4R's Comments on City of St. Catherines Fuel Escalation Clause**

*This clause was provided by the private sector waste collection contractor for the City of St. Catherines. It is short and simple and with the municipality having to pay only one-third of the increase over \$0.90/litre it provides minimum risk to the municipality. At the same time however, there is no provision for a reduction in the contract price if the price of fuel is below \$0.90/litre.*

#### **CITY OF OWEN SOUND**

##### Diesel Fuel Cost Adjustment

The adjustment to account for changes in fuel cost shall be calculated by multiplying 10% of the Collection Rate and 10% of the Transportation Rate by the average change in diesel costs from year to year as provided in the **Canadian Industry Price Index (CIPI), Diesel Fuel, Ontario** (Catalogue # 62-011-XPB) Published by Statistics Canada.

The first year average index (i.e. based on the first 12 months of the contract extension) will be compared with the average price for the 12 months prior to the contract extension date.

Each subsequent year will be based on the differential between the average for that year compared to the prior year.

#### **Average Change in Diesel Costs Example:**

Assume Benchmark Diesel Index Average = 160

Assume 1<sup>st</sup> Year Average Diesel Index = 169.6

% Change =  $\frac{169.6}{160} = 6.0\%$

In other words, the fuel CIPI adjustment would be arrived at by multiplying the fuel increase of 6.0% by 10.0% and by the agreed rates.

#### **Diesel Cost Adjustment Example:**

$$2006 \text{ Rate} = 2005 \text{ Rate} + [2005 \text{ Rate} \times 0.10 \times \frac{\{\text{CIPI Diesel for December 2006-1}\}}{\{\text{CIPI Diesel for December 2005}\}}]$$

No comments were provided by Owen Sound on the ease of administration of the clause.

#### **4R's Comments on City of Owen Sound Fuel Escalation Clause**

*The index used in the Owen Sound fuel escalation clause, while from a government source, is a subscription-based index that the municipality or contractor must pay to obtain in order to calculate the adjustment. (The XIE version of the same Index is free). It is difficult to calculate the risk and/or benefit of this clause given the combination of 10% of the Collection Rate and 10% of the Transportation Rate to obtain the annual adjustment, however, based on the example given, the CIPI adjustment would be \$0.60. If the Collection Rate was \$100, then that increase would be \$10. The combination of the two would provide for a total adjustment of \$10.60 or a 10.6% increase to the Collection Rate when other examples have shown that a fuel increase of 6% would have a marginal impact (less than 1%) on the collection cost.*

### **REGION OF NIAGARA**

#### **Contract Price Adjustment**

The Region will increase the Contract prices by 10% Stats [Canada-] Ontario Diesel Index (Table 329-0047, CONSUMER PRICE INDEX 2318) +90% Stats Canada Consumer Price Index excluding energy for Ontario. The yearly % increase will be based on the average change from calendar year to calendar year, as per Stats Canada calculation methodology.

As for administration of the adjustment, Brad Whitelaw, Program Manager, Waste Management Services Division of the Region of Niagara stated: "The clause is very easy to administer, since it is based on a pre-determined formula, which the contractor can not dispute."

#### **4R's Comments on Region of Niagara Fuel Escalation Clause**

*The fuel adjustment clause from Niagara contains an incorrect reference. There is no Stats Ontario Diesel Index. There is, however, a Statistics Canada – Ontario Diesel Index with the same Table number referenced in the Niagara clause available for a cost of \$3 from Statistics Canada. (As noted in the comments on the Owen Sound fuel escalation clause, an Index with the same information is available free from Statistics Canada.) In applying this clause using 10% of the Ontario Diesel Index and 90% of the CPI from Statistics Canada, the contractor would have received an overall adjustment only marginally higher than the 2.2% CPI.*

#### **CITY OF SARNIA**

The fuel price surcharge is a flat 2% change in price (up or down) for every 5¢ change in the quarterly diesel fuel price average. (i.e. if the average price of fuel went from 77¢ to 82¢, the contract price would go up 2% for that quarter and if the average price of fuel went from 77¢ to 72¢ the contract price would go down by 2%).

#### **4R's Comments city of Sarnia Fuel Escalation Clause**

*Administration from the City of Sarnia did not respond to the survey request, however, their private sector contractor provided a copy of the fuel escalation clause in their contract with Sarnia. There are, therefore, no comments on the ease of administration or efficiency of the clause. The clause is simple in its wording and appears to provide a reasonable balance of risk to both parties.*

#### **REGION OF DURHAM**

##### **1. Fuel Cost Adjustment For Haulage Only**

Due to the volatility of fuels costs the following provision will be made to help offset changes in fuel costs:

16.1 The fuel cost adjustment will be calculated every 3 months beginning March 1, 2005 (assuming a December 1, 2004 contract start date), with benchmark pricing based on the average on the Average CPI for September, October, and November 2004.

16.2 The price adjustment will be based on the Canadian Industry Price Index, Diesel Fuel, Ontario (Catalogue #62-011-XIE) published by Statistics Canada.

16.3 The fuel cost adjustment for March 1, 2005 will be calculated using the following formula:  
(Avg. CPI (Dec./04, Jan & Feb/05) -1 x .2 x Previous 3 month  
(Avg. CPI (Sept., Oct. & Nov./04)\* Unit Rates = Adjustment in \$ ±

Subsequent adjustment on a quarterly basis will be based on this formula with the actual months changed accordingly.

2. Fuel Adjustment Clause For Contracts With Only A Component Of Haulage Included In The Costs

Diesel Fuel Cost Adjustment for haulage of wastes only:

Annually an adjustment will be made to the per unit prices for operated services which will only be applicable to Diesel Operated Haulage Vehicles.

This will be based on the average change of Diesel costs from year to year as provided in the Canadian Industry Price Index, Diesel Fuel, Ontario (Catalogue #62-011-XIE) published by Statistics Canada.

The first year average Index (i.e. based on the first 12 months of the Contract term) will be compared with a benchmark established on the average of the 3 months Indices prior to the month in which the proposals are received. Each subsequent year will be based on the differential between the two preceding years' average.

Twenty (20%) percent of the ratios obtained will be applied to the operated services unit prices for the preceding year.

Example:

Assume 3 month Benchmark Diesel Index Average = 160

Assume 1st Year Average Diesel Index = 178

% Change =  $\frac{178 - 160}{160} = 11.25\%$

Next Year's Adjusted Rates =  $11.25\% \times 20\% = 2.25\%$  Increase

This second clause is used in conjunction with allowing a General Inflationary Adjustment of 60% of CPI, All Item, Ontario and 20% of Diesel Index.

**4R's Comments on Region of Durham Fuel Escalation Clauses**

*The first fuel escalation clause for Durham is for haulage only and would not apply to a recycling collection contract. The second index is used for recycling collection. Using the 2005 CPI and Diesel Index the Adjusted Rate would have been 3.57%, or approximately 1.4% higher than 100% of the CPI. The additional 1.4% increase is approximately the impact observed on collection costs in municipalities who purchased fuel for their own fleets.*

**CITY OF LONDON**

The adjustment for fuel costs will be calculated monthly by multiplying the difference between the current fuel price and the fuel price at the start of the contract (minus the CPI rate for Ontario), by the typical monthly fuel consumption of 33,000 litres. An example of the calculation of the adjustment for fuel is presented below:

- Fuel Price – October 2006 – 80.0 cents/litre – Ontario Ministry of Energy
- CPI increase from – October 2006 to January 2007 – 5% -Canada Statistics (same procedure as used for general inflation increases for existing contracts)
- Fuel Price – October 1998 adjusted for inflation to October 2005 – 84.0 cents/litre

- Calculated Difference in Fuel Price – 6.0 cents per litre
- 6.0 cents per litre x 33,000 litres = Fuel Adjustment Factor for January 2007 of \$1,980.

As for administration of the clause, Wesley Abbot, Manager, Solid Waste Engineering for the City of London advises that they have not started using the fuel surcharge yet, so they cannot offer an opinion on effectiveness or ease of administration on the clause.

**4R’s Comments on City of London Fuel Escalation Clause**

*The example given does not appear to match the words at the beginning of the Escalation Clause. The words say that the adjustment is minus the CPI rate for Ontario, however, this deduction is not shown in the example. The Clause also combines an annual CPI adjustment and a monthly fuel adjustment making it difficult to determine how to both calculate the adjustment and its effectiveness. The example uses a 6-cent per litre difference in the fuel price. If the base fuel price were 84 cents then the monthly increase in fuel would be 7.14%, presumably then minus the 2.2% CPI adjustment, providing for a 4.94% increase. Instead of multiplying 6 cents by 33,000 litres the adjustment should be the ratio of that increase minus the CPI adjustment or 4.15 cents per litre. The result cannot then be compared to the increase to the actual contract price.*

**COUNTY OF OXFORD**

The County of Oxford has a contract for recycling collection and processing with Halton Recycling Ltd. Due to dramatic increases in diesel fuel prices, the County and Halton Recycling Ltd. have agreed to enter into a fuel surcharge agreement for the services provided under contract to the County.

The fuel surcharge will be calculated monthly based on the following criteria:

1. The Ontario Ministry of Energy, Ontario Diesel Prices for the London Region will be used as the price index for the agreement.
2. The following are the yearly base prices per litre for diesel fuel that will be used to calculate the surcharge:

2005	\$0.699/litre
2006	\$0.720/litre
2007	\$0.742/litre

3. The surcharge will be calculated on the difference between the average monthly price per litre of diesel fuel as reported on the Ontario Ministry of Energy Ontario Diesel Prices and the base price per litre for the year (as detailed in point 2)
4. The calculated difference in price will be multiplied by the average fuel usage of 10,900 litres per month to calculate the actual surcharge amount.
5. The surcharge will be calculated by Halton Recycling Ltd. on a monthly basis and invoiced to the County of Oxford.

6. Should the monthly average price of diesel fuel fall below the yearly base price, the difference in price will be rebated to the County of Oxford by Halton Recycling Ltd.
7. The fuel surcharge will be invoiced separately from the current invoicing for waste collection services.
8. The agreement will commence as of October 12, 2005 and the calculated fuel surcharge for October 2005 will be based on pro-rated amounts for the fuel usage of 14/21 the average monthly fuel usage.

Clayton Sampson of the County of Oxford indicated they do not have any administrative experience with the fuel escalation clause as it was only recently negotiated as an addition to their contract with Halton Recycling, and the first anniversary date for it's use is October 2006.

#### ***4R's Comments on County of Oxford Fuel Escalation Clause***

*The Oxford County fuel escalation clause already includes a 3% CPI increase in fuel prices year over year reducing the risk to the municipality for supra-inflationary fuel prices. The index used in the fuel escalation clause is publicly available and free of charge, providing transparency to both parties. The monthly application of the clause provides more equity to the contractor than an annual adjustment, given the significant monthly swings in diesel fuel prices over the past 20 months.*

#### **RANKING BASED ON RISK FOR THE MUNICIPALITY**

An optimum fuel escalation clause would provide a balance of risk between the municipality and the contractor. The fuel escalation clause should provide fair and reasonable additional compensation to the contractor for supra-inflationary increases in fuel costs, i.e. fuel increases above the usual CPI index already used by most municipalities to adjust the annual cost for service provided by the contractor, but at the same time the factor should not provide for an increase to the contractor that is greater than the cost of fuel within the overall budget of providing the collection service. For example, in the two municipalities that were examined that purchase diesel fuel for their own fleet, fuel prices increased by over 14% in 2005. However, fuel only represents approximately 10% of their overall collection budget, so the 14% increase in fuel prices only resulted in an increase to their budget of between 1% and 1.5%.

The 14 fuel clauses (2 out of the 12 clauses obtained had 2 distinct clauses each) have been ranked based on the risk to the municipality. A rank of 5 represents the potential that the municipality will incur more risk than the contractor and a rank of 1 provides a balance of risk between the contractor and municipality.

<b>Municipality</b>	<b>Rank</b>	<b>Comments</b>
Norfolk	4	Indices used do not include taxes in the fuel price. Calculation done weekly regardless of whether contractor bought fuel that week.
Peel 1	2	Fuel as % of budget is specified. Indices is in US\$/gallon, no Canadian taxes and cost over \$2,500/year for a subscription.
Peel 2	2	While the formula provides for fair compensation to the contractor the formula does not state how the cost of fuel paid for by the contractor is determined.
Ottawa	3	Contractor has to absorb first 5 cents of any fuel increase over price in effect at start of contract. Contractor would likely pass on this risk to Ottawa in a higher contract price at the beginning of the contract.
Waterloo	5	Municipality set base rate of fuel at 43 cents/litre when fuel price at start of contract was 63.5 cents/litre. Municipality pays 100% of the cost of fuel over 43 cents.
Kingston	3	Contractor has to absorb first 5 cents of any fuel increase over price in effect at start of contract. Contractor would likely pass on this risk to Kingston in a higher contract price at the beginning of the contract.
St. Catherines	4	Escalation clause only comes into effect if price of fuel increases above 90 cents/litre. Except for 1 or 2 months in 2006 diesel fuel has been less than 90 cents. If contract price was based on 90 cent fuel, then municipality has been overpaying contractor.
Owen Sound	5	Combination of 10% of the Collection Price and 10% of the change in the Fuel Index results in an annual adjustment that would exceed the % increase of the cost of fuel as a percentage of the overall collection cost.
Niagara	1	Combination of 90% of CPI and 10% of Ontario Diesel Index in 2005 provided a reasonable balance of risk with a slight benefit to the municipality.
Sarnia	2	The language of the escalation clause is simple. The 2% increase in contract price if there is a 5 cent a litre increase in fuel provides a reasonable balance (particularly in a smaller program where fuel may represent a higher portion of the overall collection budget.) There may be a slight benefit to the contractor if fuel prices result in a 1% - 1.5% increase in collection costs as observed in municipalities who purchase their own fuel.
Durham 1	N/A	The clause only applies to haulage.
Durham 2	1	The combination of 60% of CPI and 20% of Diesel Index in 2005 would have provided a 1.4% increase to the contract over and above CPI. This is approximately the same increase observed in municipalities who purchased fuel for their own fleets.
London	4	Contains confusing language. Example does not match the language. Confusion usually means the contractor increases the risk to the municipality.
Oxford	1	Simple straightforward calculation using known factors. The base Fuel Price has already increased by a CPI factor balancing risk between the contractor and municipality.

## **SUMMARY**

In total, twelve fuel escalation clauses were received from nine municipalities and three from private sector contractors providing municipal collection services. There is no consistency between the twelve fuel escalation clauses. They all use a different source document as the basis for determining changes in fuel prices. Some of the source documents are public, such as Statistics Canada, although some use Statistics Canada sources that are only available through paid subscription. Others use private sources for the data, in one case a free publicly available survey of weekly fuel prices for major cities across the Country, while in another case it is a subscription-based index that has to be purchased at a cost of over \$2,500. While most of the clauses provide for an annual adjustment for fuel prices, several others provide for a monthly adjustment.

Most of the clauses are new so there is little administrative experience in the application of the fuel adjustment clauses, although, on the surface, the calculations set out in the clauses would appear to be straight forward calculations not dissimilar to the types of calculations carried out by municipalities for annual CPI adjustments to recycling contracts.

## **FUEL COSTS IN THE CONTEXT OF OVERALL RECYCLING COLLECTION CONTRACT COSTS**

There are generally 5 cost categories that make up a recycling collection contract. They are: Labour; Repairs & Maintenance; Capital, i.e. the amortized cost of recycling collection trucks; Fuel; and Miscellaneous including insurance and licenses. Capital is usually fixed over the term of the contract, but is subject to the CPI factor.

A real life example is useful in providing a measure of the importance of fuel costs relative to overall recycling collection contract costs. A municipal recycling collection contract had a cost of \$3 million in 2005, consisting of 55% labour, 20% R & M, 8% Fuel, 12% capital, and 5% Misc. It collected 28,500 tonnes of recyclables. The unit cost per tonne would have been \$105.26. If the cost of labour, R & M, and Misc inputs increased in 2006 by 3%, fuel increased by 10% and Capital was fixed, the new cost in 2006 would be \$3,096,000 or \$108.63 per tonne. If the CPI was 3% in 2005 and was applied to the Unit Price the new Unit Price in 2006 would be \$108.42/tonne. The difference would be \$6,000, or 0.2% on the previous year's contract price.

Although the example above may seem to indicate that a separate escalation clause may not be warranted, at least a few municipalities have found that not having such a clause in their contract made them vulnerable to pressures by their contractor when fuel prices rose in 2005.

In closing, the fuel price increases observed in 2005 may have been a historical anomaly. Given that almost all of the fuel escalation clauses in municipal recycling collection contracts were only implemented in the last year, and there is little to no experience in applying the clauses, a review of fuel prices and the effectiveness of fuel escalation clauses should be carried out again in 3 to 5 years.

## **RECOMMENDATIONS FOR CHANGE TO THE MODEL TENDER TOOL**

The Model Tender Tool is currently based on the Ottawa and Kingston examples of the Fuel Escalation Clause where the contractor must absorb the first 5 cent increase in any change in fuel prices. With the volatility in fuel prices over the 20 month period reviewed as part of this project, and expected in the future, the contractor is likely to pass on this risk to the municipality in the form of a higher unit price at the beginning of the contract. The fuel escalation clauses in Niagara, Durham and Oxford, while very different in their wording, all appear to provide a better balance of risk and fairness to both the municipality and contractor. Having the contractor specify the percentage of their fuel cost relative to total collection cost at the time of their bid would also be recommended as a modification to the Model Tender Tool. This would permit CPI to be calculated on the other components of their collection cost, i.e. labour, while using one of the publicly available fuel indices from Statistics Canada to adjust the fuel component of their cost.

**SCHEDULE A**  
**Summary of Fuel Surcharge Responses**

Municipality Contacted	Fuel Surcharge		No Response	Comments
	Yes	No		
Aylmer			X	
Barrie			X	
Brantford			X	
Bluewater		X		Provided price paid for fuel for their fleet.
Brant County			X	
Chatham-Kent		X		
Central Elgin		X		
Cochrane-Temiskaming			X	
Cornwall		X		
Dryden			X	
Durham	X			
Espanola			X	
EWSWA		X		Provided price paid for fuel for their fleet.
Guelph		X		Provided price paid for fuel for their fleet.
Haldimand			X	
Halton		X		Contractor can ask for increase above CPI and Halton granted increase of 5.85% in 2005 due to increase in fuel prices.
Hamilton		X		
Kawartha Lakes			X	
Kenora			X	
Kingston	X			Also provided fuel price for own fleet.
London	X			
Meaford			X	
Newmarket		X		
Niagara	X			
Norfolk	X			
North Bay		X		
North Glengary (RARE)		X		
Orillia		X		
Orangeville			X	
Ottawa	X			
Owen Sound	X			Also provided price for fuel for own truck.
Oxford	X			
Peel	X			
Peterborough, County		X		
Sault Ste. Marie			X	
Sarnia			X	Obtained fuel price surcharge clause from Contractor
Smith Falls			X	
The Blue Mountains			X	
Thames Centre			X	
Thunder Bay		X		
Toronto			X	
Region of Waterloo			X	Obtained fuel price surcharge clause from Contractor
County of Wellington		X		

**SCHEDULE B**

**Diesel Fuel Price Trends - 2005 - 2006 - Cents Per Litre**

	<b>Toronto</b>		<b>Bluewater</b>	<b>%</b>	<b>Essex</b>	<b>%</b>	<b>Owen</b>	<b>%</b>		<b>%</b>	<b>Kingston</b>	<b>%</b>	<b>Avg.</b>	<b>Avg.</b>
	<b>Rack Price</b>	<b>% Change</b>	<b>Recycling</b>	<b>Change</b>	<b>Windsor</b>	<b>Change</b>	<b>Sound</b>	<b>Change</b>	<b>Guelph</b>	<b>Change</b>	<b>Change</b>	<b>Change</b>	<b>Price</b>	<b>Change</b>
<b>2005</b>														
Sat 30-Dec-00	69.95		65.90								69.95		68.60	
January Average	72.71	2.8%	69.41	3.5%	55.15		69.70		66.70		72.71	2.8%	67.73	-0.9%
February Average	72.56	-0.1%	69.30	-0.1%	55.15	0.0%	70.07	0.4%	70.09	3.4%	72.56	-0.1%	68.29	0.6%
March Average	77.94	5.4%	74.33	5.0%	55.15	0.0%	75.50	5.4%	69.57	-0.5%	77.94	5.4%	71.74	3.4%
April Average	78.96	1.0%	75.28	1.0%	55.15	0.0%	76.34	0.8%	74.52	5.0%	78.96	1.0%	73.20	1.5%
May Average	76.74	-2.2%	73.22	-2.1%	68.88	13.7%	73.98	-2.4%	75.30	0.8%	76.74	-2.2%	74.14	0.9%
June Average	82.73	6.0%	78.78	5.6%	78.33	9.5%	78.94	5.0%	73.22	-2.1%	82.73	6.0%	79.12	5.0%
July Average	82.70	0.0%	78.80	0.0%	79.35	1.0%	80.15	1.2%	79.07	5.8%	82.70	0.0%	80.46	1.3%
August Average	86.47	3.8%	82.36	3.6%	82.11	2.8%	82.14	2.0%	78.58	-0.5%	86.47	3.8%	83.02	2.6%
September Average	92.19	5.7%	88.19	5.8%	82.05	-0.1%	84.13	2.0%	82.27	3.7%	92.19	5.7%	86.84	3.8%
October Average	93.17	1.0%	88.30	0.1%	83.61	1.6%	87.25	3.1%	89.84	7.6%	93.17	1.0%	89.22	2.4%
November Average	84.12	-9.1%	79.98	-8.3%	75.46	-8.2%	78.90	-8.3%	87.71	-2.1%	84.12	-9.1%	81.72	-7.5%
December Average	85.31	1.2%	81.21	1.2%	76.66	1.2%	80.72	1.8%	80.90	-6.8%	85.31	1.2%	81.69	0.0%
<b>% Change Beginning to End of Year</b>		<b>15.9%</b>		<b>11.8%</b>		<b>21.5%</b>		<b>11.0%</b>		<b>14.2%</b>		<b>12.6%</b>		<b>14.0%</b>
<b>2006</b>														
January Average	84.82	-0.5%	80.77	-0.4%	81.87	5.2%	81.05	0.3%	82.02	1.1%	84.82	-0.5%	82.56	0.9%
February Average	81.29	-3.5%	77.39	-3.4%	79.46	-2.4%	78.73	-2.3%	80.40	-1.6%	81.29	-3.5%	79.76	-2.8%
March Average	85.41	4.1%	81.32	3.9%	88.78	9.3%	82.07	3.3%	77.27	-3.1%	85.41	4.1%	83.38	3.6%
April Average	92.26	6.9%	87.75	6.4%	81.94	-6.8%	87.68	5.6%	82.60	5.3%	92.26	6.9%	87.42	4.0%
May Average	91.73	-0.5%	87.24	-0.5%	82.40	0.5%	85.95	-1.7%	87.95	5.4%	91.76	-0.5%	87.84	0.4%
June Average	91.47	-0.3%	87.02	-0.2%	81.94	-0.5%	86.20	0.3%	87.45	-0.5%	91.47	-0.3%	87.59	-0.2%
<b>% Change Beginning to End of June</b>		<b>6.7%</b>		<b>6.3%</b>		<b>0.1%</b>		<b>5.2%</b>		<b>5.4%</b>		<b>6.7%</b>		<b>5.0%</b>
July Average	92.99	1.5%			89.10	7.2%	87.58	1.4%	90.15	2.7%	92.99	1.5%	90.56	3.0%
August Average	93.92	0.9%			90.20	1.1%	90.06	2.5%	90.50	0.3%	93.92	0.9%	91.72	1.2%

**SCHEDULE C**  
**Average Monthly Diesel Fuel Prices - Cents/Litre**  
**2005 - 2006**

