

Clause 9 in Report No. 10 of Committee of the Whole was adopted, without amendment, by the Council of The Regional Municipality of York at its meeting held on May 21, 2015.

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Fuel Price Hedging Program 2014 Annual Report

Committee of the Whole recommends adoption of the following recommendation contained in the report dated April 29, 2015 from the Commissioner of Finance:

1. Recommendation

It is recommended that Council receive this report for information, in accordance with Ontario Regulation 653/05 of the *Municipal Act, 2001*.

2. Purpose

This report summarizes the activities undertaken during 2014 as part of the Region's fuel price hedging program as well as its historical performance.

3. Background

The goal of the hedging program is to achieve greater cost certainty for fuel prices

Council has adopted a *Commodity Price Hedging Policy* (the Policy) that allows for the price hedging of commodities, in particular the fuel that is used for transit and fleet vehicles. The goal of the Policy is not to speculate on the future price of the commodity, but rather to manage the Region's financial risk by helping to fix the price of the commodity for a predetermined amount and volume.

The Policy permits the hedging of up to 80 per cent of the forecasted annual commodity volume for a term of up to thirty (30) months beyond the execution date of the contract.

Fuel hedging agreements are contracts entered into with financial institutions that set a price for fuel over a stipulated timeframe. These contracts are purely financial transactions and do not involve the physical receipt of fuel, which continues to be sourced at the pump or through bulk delivery contracts.

Under a hedging agreement, the Region receives a payment when the average market price of the specified index exceeds the stated price in the contract, which is settled on a monthly basis. This payment is used to help offset the higher prices paid at the pump. Conversely, the Region is obliged to pay if and when the price falls below the contract price, but this cost should be offset through savings at the pump.

Fuel hedging agreements are arranged through Canadian financial institutions on a competitive basis

Before entering into a fuel hedging agreement, staff obtain quotes from at least two Canadian financial institutions. The Region then enters into the agreement with the financial institution offering the lowest quote. Other than the price, the terms in the hedging agreements are subject to the ISDA Master Agreement, which is a standardized agreement that is published by the International Swaps and Derivatives Association (ISDA).

Ultra-Low Sulfur Diesel (ULSD) was used for hedging both diesel and gasoline

Historically, there was no futures index available in the market for either diesel or gasoline, so heating oil, with a 98 per cent price correlation, was used as a proxy in order to hedge fuel prices. However, in May 2013, the New York Mercantile Exchange replaced the heating oil futures contract with a new specification called the Ultra-Low Sulfur Diesel futures index. This switch has since made it easier for market participants to directly hedge their diesel fuel requirements. Approximately 80 per cent of the Region's fuel consumption is either Ultra-Low Sulfur Diesel or biodiesel, the majority of which is acquired through bulk purchases.

4. Analysis and Options

The Region hedged 80 per cent of its 2014 fuel requirements at a net price of \$1.07 per litre and received net payments of \$132,617 from hedging settlements

During 2013, the Region entered into four fuel hedging agreements that covered 80 per cent of its expected fuel consumption for 2014, at an equivalent price of \$1.07 per litre, net of tax rebates (see Table 1).

Table 1: Fuel Price Hedging Transactions for 2014

Hedging Agreement Execution Date	Counterparty	Effective Period	Hedged Volume (litres)	Hedging Contract Price (CA\$/litre)	Region's Equivalent Diesel Price (CA\$/Litre)
Oct 23, 2013	RBC	Jan - Dec 2014	4,488,000	0.8075	\$1.08
Nov 1, 2013	RBC	Jan - Dec 2014	4,488,000	0.8048	\$1.07
Nov 4, 2013	CIBC	Jan - Dec 2014	4,488,000	0.7995	\$1.07
Nov 5, 2013	RBC	Jan - Dec 2014	4,483,000	0.7960	\$1.06
Hedging Total/Average			17,947,000	0.8020	\$1.07
Forecasted Annual Demand		2014	22,434,706		
Total Hedged Volume as % of Forecasted Demand			80%		

During the year, the average settlement price for Ultra-Low Sulphur Diesel was about 0.7 cents per litre higher than the hedged price. As a result, the Region received net payments of \$132,617 through its hedging program.

The fuel hedging program has resulted in a net gain of \$964,358 since the program was implemented

In September 2009, the Region entered into its first fuel hedging agreement for 2010 fuel consumption. Table 2 shows the annual hedging volumes as well as the gains and losses since the implementation of the fuel hedging program. The gains have been used, when necessary, to help offset the higher cost paid for fuel at the pump or through bulk purchases.

Table 2: Historical Hedging Settlement Summary

	Hedged Volume (litres)	Average Hedging Contract Price (CA\$/litre)	Average Settlement Price (CA\$/litre)	Gain/(Loss) from Hedging Settlements (\$)
2010	8,706,420	0.5731	0.5833	88,790
2011	No Hedging*			
2012	10,150,000	0.7784	0.7818	34,640
2013	17,400,000	0.7736	0.8143	708,311
2014	17,947,000	0.8019	0.8093	132,617
Subtotal	54,203,420			964,358

* No hedging transactions were entered into in 2011 as Regional staff did not see an opportunity to hedge at a price that was at or below the budgeted fuel price level. At that time oil prices were being driven higher due to speculation and fears of supply disruptions with geopolitical tensions in Iran.

Hedging agreements are also in place for 2015 and 2016 at a net price of \$1.04 and \$1.05 per litre respectively

Fuel consumption for the Region is forecasted to be 23.6 million litres for 2015 and 24.5 million litres for 2016.

Six agreements have been entered into with CIBC (five) and RBC (one) to hedge approximately 80 per cent of the forecasted fuel consumption for this period. All hedging agreements were made in accordance with the Region's *Commodity Price Hedging Policy*.

Net of tax rebates, the equivalent diesel price that the Region has hedged is \$1.04 per litre for 2015 and \$1.05 per litre for 2016. With the full HST of 13 per cent, the corresponding diesel price at the pump would be approximately \$1.16 per litre for both years.

Table 3: Fuel Price Hedging Transactions for 2015

Hedging Agreement Execution Date	Counterparty	Hedging Year	Hedged Volume (litres)	Hedging Contract Price (CA\$/litre)	Region's Equivalent Diesel Price (CA\$/litre)
Sep 23, 2013	CIBC	2015	8,196,000	0.7745	\$1.04
Oct 1, 2013	CIBC	2015	10,104,000	0.7768	\$1.04
Oct 8, 2014	CIBC	2015	360,000	0.7825	\$1.05
Hedging Total/Average			18,660,000	0.7759	\$1.04
Forecasted Annual Demand		2015	23,591,327		
Total Hedged Volume as % of Forecasted Demand			79%		

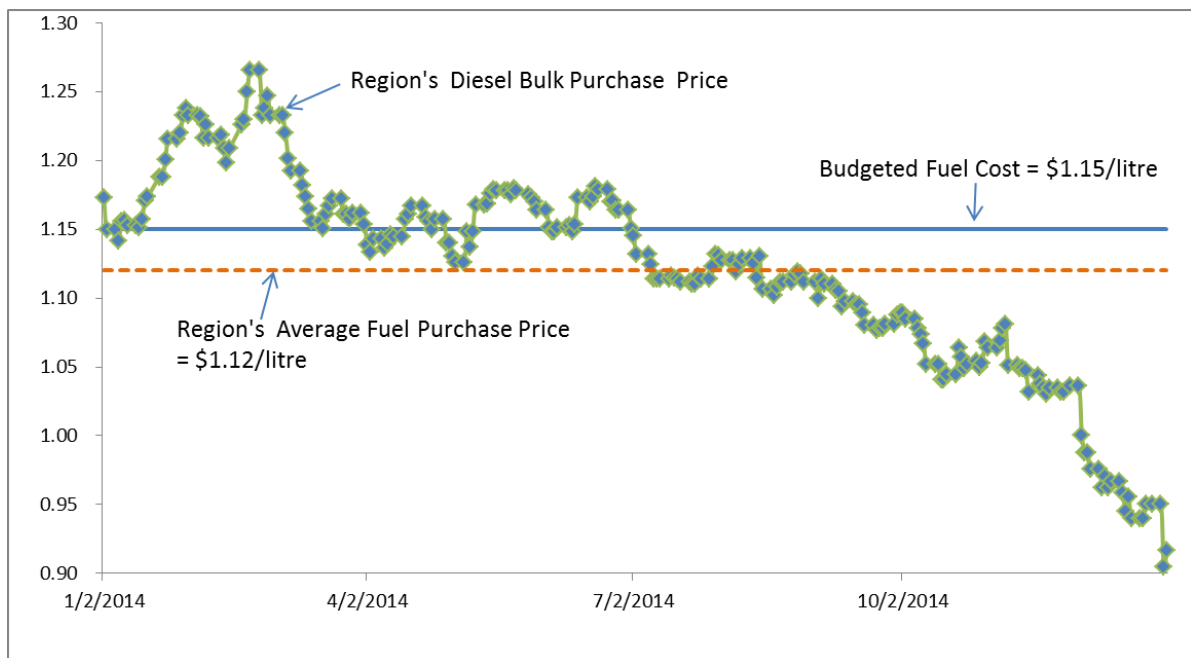
Table 4: Fuel Price Hedging Transactions for 2016

Hedging Agreement Execution Date	Counterparty	Hedging Year	Hedged Volume (litres)	Hedging Contract Price (CA\$/litre)	Region's Equivalent Diesel Price (CA\$/litre)
Oct 8, 2014	CIBC	2016	9,504,000	0.7895	\$1.06
Oct 10, 2014	CIBC	2016	4,800,000	0.7795	\$1.05
Oct 15, 2014	RBC	2016	5,325,000	0.7670	\$1.03
Hedging Total/Average			19,629,000	0.7810	\$1.05
Forecasted Annual Demand		2016	24,550,960		
Total Hedged Volume as % of Forecasted Demand			80.0%		

The average net fuel purchase price paid during 2014 was \$1.12 per litre, three cents below the overall corporate fuel budget

The 2014 budget assumed a net fuel cost of \$1.15 per litre (department base of \$1.00 per litre plus a \$0.15 per litre corporate contingency) with a forecasted fuel volume of 22.4 million litres. The actual fuel consumption for 2014 was right on budget with an average price (net of tax rebates) of \$1.12 per litre (see Graph 1 below). The three cents savings was contributed to the Fuel Cost Stabilization Reserve.

Graph 1: Region's Fuel Purchase Price vs Budget Price in 2014



Note: The Region's average fuel purchase price of \$1.12/litre included the bulk purchases and purchases at the pump for both diesel and gasoline fuel in 2014.

The Fuel Cost Stabilization Reserve Fund has distributed approximately \$6.4 million to operating departments to offset higher fuel costs over the past three years

The purpose of the Fuel Cost Stabilization Reserve Fund is to address differences between actual and budgeted fuel rates during the year, as well as any costs or savings arising from the fuel hedging program. The reserve is funded from the corporate fuel contingency (currently at \$0.15 per litre) and the net receipts from the fuel hedging agreements.

Historically, departmental fuel costs have been budgeted using a base cost of \$1.00 per litre, and any difference between the base cost and department's actual cost is adjusted through the reserve fund. Over the last three years, the reserve fund has provided a total of \$6.4 million to the operating departments for this purpose.

At the end of 2014, the reserve had a balance of \$3,753,050, approximately \$1 million of which was contributed from the fuel hedging program.

Highly volatile market conditions associated with rapid drops in the price of oil have reduced the effectiveness of the hedge since the Fall of 2014

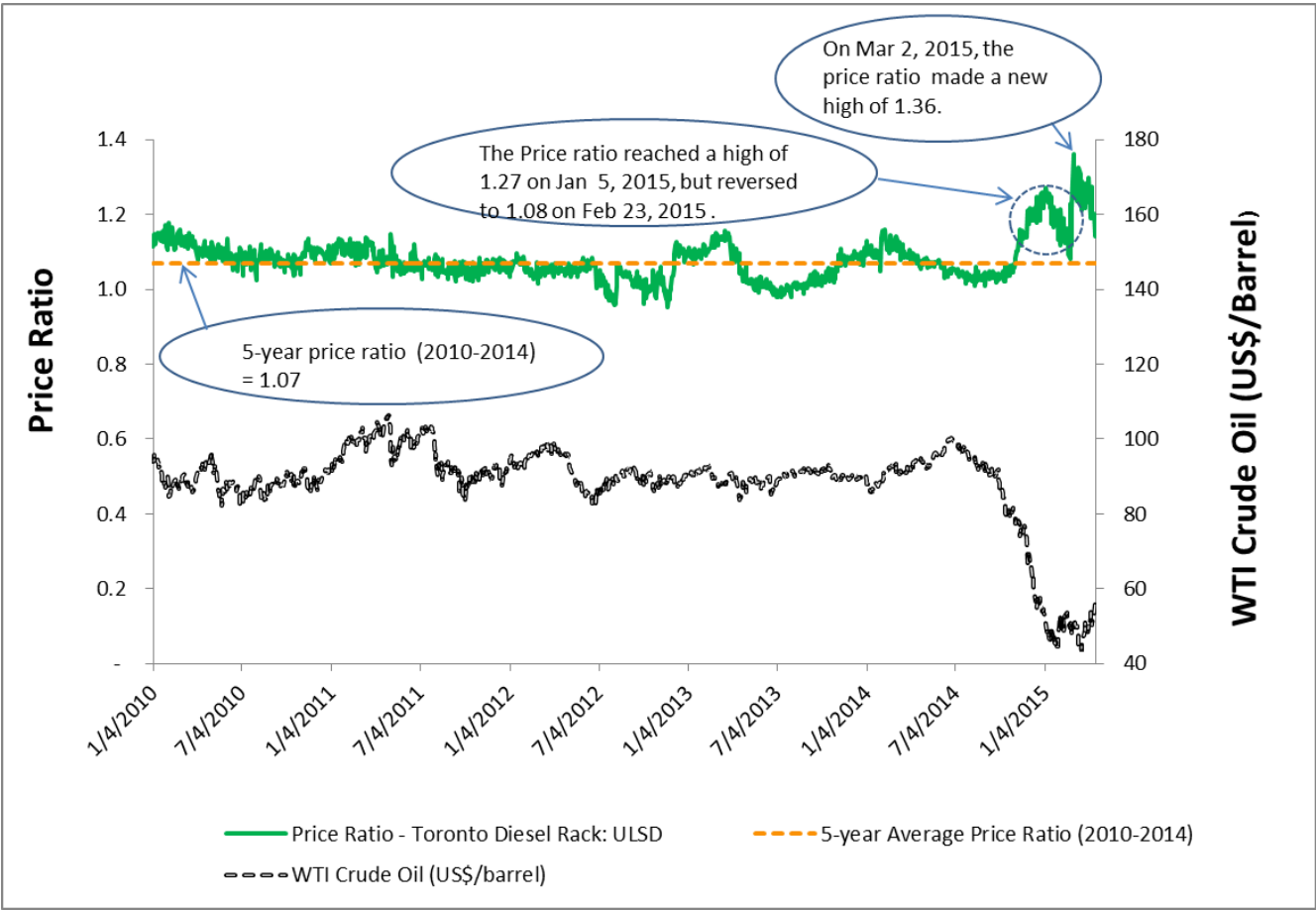
Historically, the futures index price of Ultra-Low Sulfur Diesel has been very highly correlated with the Toronto Diesel Rack price (a reference point for the price paid by the Region), and the Region's fuel hedge worked effectively.

However, during periods of high market volatility, the correlation between the Ultra-Low Sulfur Diesel index and the Toronto Diesel Rack price weakens. This is normally the result of sticky diesel prices, meaning that the pump price does not fall as quickly or as far as the price that the Region settles for through the fuel hedging program. When this happens, savings from purchases at the pump do not fully offset projected losses in the hedging program, rendering the hedge less effective.

Graph 2 below illustrates how the Toronto Diesel Rack price has moved in relation to the Ultra-Low Sulfur Diesel futures index price over the past five years. Between 2010 and 2012 the price ratio of the Toronto Diesel Rack and the Ultra-low Sulfur Diesel futures Index was stable. However, when the price of oil fell from \$90 per barrel in September 2014 to \$50 per barrel in February 2015, the price ratio of Toronto Diesel Rack and the futures index weakened considerably. This meant that the Region was paying out more on the hedge than it was saving at the pump.

This type of misalignment has occurred in the past, though previous misalignments were less severe and corrected themselves fairly quickly. Staff anticipate that as the market settles, the price gap between the Ultra-Low Sulfur Diesel index and retail diesel will narrow back to normal levels, at which time any hedging gains or losses will again be offset by the additional costs or savings at the pump. Staff continue to monitor the market and have not entered into any new fuel hedging contracts during 2015.

Graph 2: Toronto Diesel Rack and USLD Index Price Ratio



Links to key Council-approved plans

Fuel price hedging, under the Region’s *Commodity Price Hedging Policy*, enables the Region to manage its finances prudently, a strategic priority area that was identified in the 2011 to 2015 Strategic Plan. Specifically, it provides greater cost certainty for fuel purchases.

5. Financial Implications

The Region hedged approximately 80 per cent of its 2014 forecasted fuel volume at a net price of \$1.07 per litre and received payments of \$132,617 from the hedging settlements.

It has entered into hedging agreements for approximately 80 per cent of its expected fuel consumption at a tax adjusted fuel price equivalent of \$1.04 per litre for 2015 and \$1.05 per litre for 2016. The recent market anomalies with respect to retail diesel prices will likely have an impact on the overall effectiveness of the hedging program during 2015, resulting in a smaller than previously anticipated contribution to the Fuel Cost Stabilization Reserve Fund.

6. Local Municipal Impact

There is no impact to local municipalities arising from the fuel price hedging program.

7. Conclusion

The fuel price hedging program helps manage the cost of fuel for the Region. Regional staff will continue to monitor the effectiveness of the program.

For more information on this report, please contact Edward Hankins, Director, Treasury Office, at Ext. 71644.

The Senior Management Group has reviewed this report.

April 29, 2015

Edocs #: 6076148

Accessible formats or communication supports are available upon request