

Markham Energy Conservation Office



Electricity Procurement Strategy

Presentation to General Committee – December 10, 2007
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Overview

Purpose

- To obtain authorization to implement the Electricity Procurement Strategy outlined in the Report consisting of a Short & Long Term Strategy

Why?

- The Town of Markham consumes approximately 4 million kilowatt hours (kWh) of electricity per year at a cost of \$4 million
- An opportunity has been identified to implement an improved way of purchasing electricity for the Town that will result in an estimated savings of over \$300,000 per year

How?

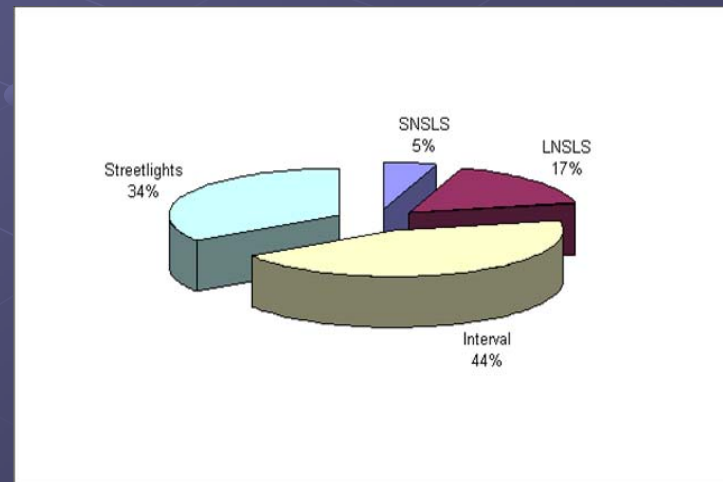
- Move select account types from the Regulated Price Protection (RPP) Plan to the wholesale spot market and/or spot market with a hedge

Regulated Price Protection (RPP) Plan

- Municipalities generally purchase electricity from the RPP, a two-tiered rate plan whereby a lower rate is charged for the 1st 750 kWh of electricity consumed and a higher rate for all consumption after that
- 1st tier rate is generally below market recognizing electricity as a basic necessity – the 2nd tier is intentionally set above market providing incentives for conservation
- MUSH customers subsidize electricity costs of residential and small commercial customers across all of Ontario
- RPP Variance Settlement – reflection of the consumer's share of any accumulated variance between the actual price paid to generators and the forecast price paid by price plan consumers
 - a one time credit or charge issued when leaving the RPP

Solution?

- Employ other procurement options depending on account type
 - Pure spot market (OEB requires use of retailer to access spot market for non-interval metered accounts)
 - Spot market with a hedge
- Account types: Street Lights - 1 account, 21,000 lights; Small Net System Load Shape (SNSLS) - 93 accounts; Large Net System Load Shape (LNSLS) – 40 accounts; Interval Metered – 8 accounts



Strategy

Street Lights

- April 2007 – Council approval to move street light energy account to the spot market under one year contract – will expire April 30, 2008 – will have to be renewed in order to continue savings
- RPP Variance Settlement (1 time credit) - \$37,123

	August		September		October	
	Consumption =	1,169,685	Consumption =	1,169,685	Consumption =	1,432,229
RPP	@ 6.2¢/kWh =	\$ 72,520.47	@ 6.2¢/kWh =	\$72,520.47	@ 6.2¢/kWh =	\$ 88,798.20
Our price	--	--	@ 3.3¢/kWh =	\$38,784.52	@ 3.8¢/kWh =	\$ 54,537.16
Commodity Savings			2.9¢/kWh	\$33,735.95	2.4¢/kWh	\$ 34,261.04
Provincial Adjustments			@ 0.025¢/kWh	\$ 292.42	@ 0.5¢/kWh	\$ 7,161.15
Total Savings	N/A			\$33,443.53		\$ 27,099.89

Small Net System Load Shape Accounts (SNSLS)

- Consume <16,000 kWh of electricity/year – should remain on RPP

Short Term Strategy

January 1 – April 30, 2008

- Move LNSLS and Interval accounts to spot market
- Need to utilize a retailer for LNSLS
- Interval accounts can be moved directly to spot market through PowerStream at no cost
- RPP Variance Settlement (1 time credit) - $\$21,500 + \$56,478 = \$77,978$

LNSLS - Spot Market – Jan – Apr-08

Average Electricity Unit Cost 5.28 cents/kWh

4 month saving over RPP	\$13,846
RPP Credit (1 time)	\$21,500
Billing Fee to Retailer	\$(15000)
Total Savings over 4 months	\$20,346

Interval – Spot Market – Jan – Apr-08

Average Electricity Unit Cost 5.28 cents/kWh

4 month saving over RPP	\$35,547
RPP Credit (1 time)	\$56,478
Total Savings over 4 months	\$92,025

Long Term Strategy

May 1, 2008 onward

- WattsWorth to assist town in determining best strategy going forward
- While short term strategy involves moving LNSLS and interval accounts to spot market – the longer term strategy includes adding a hedge*, or fixed price contract to a portion of the consumption
 - *Hedging is a strategy used to limit or offset probability of loss from fluctuations in the prices of electricity

Account Type	Number of Accounts	Annual Consumption (kWh)	Average Commodity Price *	New Average Commodity Price	Estimated Savings
SNSLS	93	2 million	5.27¢/kWh	5.27¢/kWh	N/A
LNSLS	40	6.7 million	6.13¢/kWh	5.63¢/kWh	\$33,500
Interval	8	17.6 million	6.13¢/kWh	5.5¢/kWh	\$110,880
Streetlights	1	13.7 million	6.13¢/kWh	4.91¢/kWh	\$167,140
Total	142	40 million			\$311,520

Commodity Price Hedging Policy & Reporting

- Requirement under the Municipal Act, 2001, Section 6(1) of O. Reg. 653/05 that a municipality adopt a statement of commodity price hedging policies and goals related to the use of financial agreements
 - See attached Commodity Price Hedging Policy
- Reporting requirement – Treasurer shall report to Council annually on the price hedging agreements in place
 - WattsWorth's service will include providing the Town with details related to our annual savings

Questions?