Office of the Auditor General / Bureau du vérificateur général

AUDIT OF PROCUREMENT PRACTICES – HEDGING ACTIVITIES

2011

VÉRIFICATION DES PRATIQUES D'APPROVISIONNEMENT – ACTIVITÉS DE COUVERTURE

Table of Contents

EXECUTIVE SUMMARY

Introduction

The Audit of Procurement Practices was included as part of the Auditor General's 2011 Audit Plan approved by Council on April 13, 2011. During the course of the Audit of Procurement Practices, a member of Council requested we review hedging activities undertaken at the City of Ottawa. This section was severed from the Audit of Procurement Practices for presentation on its own for clarity.

Background

This Audit deals with the hedging activities directly linked with procurement activities undertaken by the City.

A hedge[1] is defined as *"making an investment to reduce the risk of adverse price movements in an asset. Normally, a hedge consists of taking an offsetting position in a related security, such as a futures contract."*

The City is actively involved in hedging activities for two commodities: diesel and natural gas.

Management has indicated that hedging the future price of diesel fuel is undertaken with the use of financial agreements (swaps). Long-term supply contracts are entered into for the supply of natural gas at fixed prices but there are no financial agreements entered into to fix prices. There are no financial hedges for the supply of natural gas.

The City has a Corporate Policy for Commodity Price Hedging: By-law 2008-426, which was enacted on November 26, 2008 by Council.

Ontario Regulation 653/05 provides the authority and regulations governing commodity hedging for municipalities. This is not a broad or detailed set of requirements. However, it does state that the treasurer of the municipality shall prepare and present to the municipal council once in that fiscal year, or more frequently if the council so desires, a detailed report on all of those agreements. It also calls for ongoing monitoring of hedging related agreements.

Management's interpretation of the Regulation 653/05 is that it relates to the use of financial agreements (swaps, options, etc.) for the purpose of hedging the price of a commodity. Furthermore, management understands that the role of the Treasurer, as described in this Regulation, pertains to the use of financial agreements only.

Consistent with Management's interpretation of Regulation 653/05, the City's Corporate Policy for Commodity Price Hedging (By-law 2008-426) was developed to govern the use of financial agreements in the context of the use of financial

[1] Investopedia. Term is similarly defined in other sources.

instruments. The policy includes the following key definitions: Commodity Price Hedging Agreement is a financial instrument to fix the cost and/or manage the financial risk associated with the purchase of a commodity. Financial Agreement means a commodity price hedging agreement including swaps and call option contracts. In short, Management does not believe that the "forward looking" activities, with respect to natural gas contracts are financial hedging activities, and therefore, in their opinion, the Regulation does not apply. We believe, however, that the "forward looking" activities are in essence, and in intent, hedging activities as they have the objective to obtain both budget certainty and to minimize the adverse commodity's market price fluctuation. In our opinion, the future contracts for natural gas are hedging activities.

Audit Scope

The scope of the audit encompassed hedging practices directly linked with procurement activities related to natural gas and diesel fuel undertaken by the City.

Summary of Key Findings

The primary objective for the commodity price hedging activity is to reduce the financial risk by providing price stability and protection against the effects of adverse market conditions.

Diesel Fuel

The diesel fuel purchased by the City is largely used by its public transportation fleet (such as OC Transpo buses) and its municipal fleet. The volume of diesel utilized by the City is approximately 48 to 50 million litres annually.

There is currently annual reporting to Council for diesel hedging activities. However, the City does not compare performance benchmarking against market rates in order to establish if the hedging efforts have resulted in lower prices. We reviewed the effectiveness of the hedge transactions entered into during 2009 and 2010 and observed that while 2009 resulted in an overall ineffective position of $267,000, the results of 2010 hedges were effective in the magnitude of approximately $5 million.

Natural Gas

The City participates in a cooperative purchasing arrangement with 17 participating entities: Ottawa Carleton Energy Purchasing Group (OCEPG). The objective of the OCEPG is to strategically procure natural gas on the open market to achieve savings for its members. OCEPG includes school boards but not hospitals. Natural gas expenditures, in 2011, were approximately $14.5 million for the cooperative as a whole, of which the City accounts for approximately $4.4 million, or 30%, of the consumption.

The OCEPG has entered into several forward contracts at unit prices of 14.63 to 31.40 cents per m3. Over the next several years, the City's committed portion is between $3.46 million in 2013 and $0.42 million in 2017. The current market rate, as of April 2012, is 8.2 cents per m^3.

Management has indicated that while the City, through the OCEPG, has entered into long-term supply contracts of natural gas at fixed prices, there are no 'financial agreements' entered into to fix prices, and thus they are not considered, by definition, financial hedges for the supply of natural gas. It is our opinion that the purchase of natural gas to be delivered at a future date at a defined price meets the conceptual intent of hedging activities, and inherently provides forward buying activities which exposes the City to significant risks, and in this particular case, given the circumstances of the current market trends, has already cost the City approximately $2.1 million between June 2011 and May 2012.

Disclosure in Financial Statements

We found that the City's Consolidated Financial Statement Notes for 2010 and 2011 did not contain a note to disclose the contractual obligations and commitments which the City had with respect to natural gas. It is our opinion that consideration, given the significance of the transactions, should be given to the Notes of the Financial Statements.

Recommendations and Management Responses

Recommendation 1

That the City evaluate whether the hedging, or forward buying, activities related to natural gas are meeting the inherent City's objectives of managing and mitigating financial risks associated with the hedging activities.

Management Response

Management agrees with this recommendation.

The evaluation of the existing Energy Management and Investment Strategy approved in October 2008 (ACS2008-BTS-RPM-0041) will be performed in conjunction with the report to be prepared in accordance with management's response to Recommendation 3. This evaluation will take into account the objective to obtain both budget certainty and to minimize the commodity's adverse market price fluctuations. This recommendation will be implemented by the end of Q3 2013.

Recommendation 2

That the City track performance of all hedges against market rates on a regular basis and report to Council.

Management Response

Management agrees with this recommendation.

Management believes that annual reporting would be sufficient given that a hedging program, by its nature, must take a longer-term view. Reporting annually provides an opportunity to compare purchases and market rates year-over-year. This provides a clearer context and allows for easy comparisons as opposed to using smaller snapshots within a year which may give misleading views of seasonal variation.

The reporting will be included with the annual purchasing report – Purchasing Year In Review. The 2012 report will be brought forward to Committee and Council in Q2 2013.

Recommendation 3

That the City, through a new and comprehensive exercise, identify all risks associated with the hedging strategy and request authority from Council to continue.

Management Response

Management agrees with this recommendation.

Management will prepare a report for Council consideration by the end of Q3 2013. This will be the five-year anniversary of Council's receipt of the Energy Management Strategy (October 2008) regarding electricity and natural gas, and the Corporate Policy for Commodity Price Hedging (By-law 2008-426 - November 2008).

Recommendation 4

That, if the City continue to hedge, the City should review the methodology and practices used to govern these activities, particularly as they relate to natural gas.

Management Response

Management agrees with this recommendation.

The review of the purchasing practices with respect to natural gas will assess whether a process can be put into place that addresses significant price movements in the price of the commodity.

This recommendation will be implemented by the end of Q3 2013.

Recommendation 5

That the Finance Department take a more active oversight role in the activities related to long-term natural gas contracts.

Management Response

Management agrees with this recommendation and will begin implementation in Q1 2013.

Recommendation 6

That the City consider, in conjunction with the external auditor, on a go forward basis, that the City's Consolidated Financial Statements Notes reflect the City's commitments relating to future natural gas contracts and record the disclosure regarding diesel fuel hedging.

Management Response

Management agrees with this recommendation and will consider this for the Financial Statement for the year ending December 31, 2012.

Areas of Potential Savings

One area that could lead to savings is to discontinue the hedging activities related to natural gas; to prevent further losses of approximately $2 million annually.

Overall Management Comment:

Management has requested that the following comment from Public Works be included in this audit.

Public Works:

- Public Works Management disagrees with the statement that we can prevent losses of approximately $2 million annually by discontinuing hedging activities related to natural gas. The City has purchased future natural gas contracts through 2017. Those contracts will have to be fulfilled and any premium over market values will have to be paid.
- Since the report was drafted in July, the NYMEX market price for natural gas has risen by 35%. This significantly reduces our expected premium over market conditions. It also demonstrates how fluid the market can be.
- As stated in the body of the report, changes in technology have resulted in an inexpensive method of retrieving large amounts of natural gas. The resulting glut of natural gas on the market has contributed a 65% reduction in commodity prices. The price drop in natural gas has never been observed in the 100 year history of the industry. Future gas contracts will be based to a large extent on what the expected price of gas will be at that time. Figure 2 demonstrates that recent purchase of future gas contracts better reflect current market prices of natural gas. Prior to 2009 as demonstrated in figure 4, the City typically paid less than the market rates with our natural gas contracts saving almost $1,500,000 between 2006 and 2008 over Enbridge prices. The City should not be distracted from its course because of a one-time event that is unlikely to be repeated.

- If long term prices go up more than expected the City will end up paying less than market rates. If long term prices drop or go up less than predicted the City will pay a premium over market rates. Management believes the chances of prices going up significantly more than expected is much higher than the rates ending up significantly lower than predicted. In the long-term, management feels that the risk of paying significantly more than market rate for future natural gas contracts is low.

Conclusion

We believe that the City is currently meeting its objective of obtaining budget certainty for natural gas and diesel fuel, but in our opinion is not successful in addressing significant price movements.

Management has indicated that it does not believe that the forward buying activities of natural gas are defined as hedging transactions. However, we believe the current $2.1 million loss experienced to date, combined with an upcoming estimated annual loss of $2 million resulting from contractual agreements entered into between 2012 and 2017 highlight the need to reinvestigate the City's objective with regards to procuring natural gas, or other commodities, well into the future.

Acknowledgment

We wish to express our appreciation for the cooperation and assistance afforded the audit team by management.

RÉSUME

Introduction

La vérification des pratiques d'approvisionnement faisait partie du plan de vérification 2011 soumis par le vérificateur général de la Ville et approuvé par le Conseil municipal, le 13 avril 2011. Durant ce processus, un membre du Conseil a demandé l'examen des activités de couverture entreprises dans la Ville d'Ottawa. Cette section a été retirée de la vérification des pratiques d'approvisionnement afin d'être présentée à part, par souci de clarté.

Contexte

La vérification porte sur les activités de couverture directement liées aux activités d'approvisionnement entreprises par la Ville.

Une couverture[2] est « *une opération d'investissement qui vise à réduire l'exposition d'un bien aux variations défavorables des prix. En règle générale, une couverture consiste à prendre une position de compensation sur une valeur sous-jacente, comme un contrat à terme."*

La Ville recourt activement aux opérations de couverture pour deux produits de base : le diesel et le gaz naturel.

La direction a déclaré que les opérations de couverture des prix du diesel à terme se faisaient dans le cadre d'accords financiers (*swaps*). Les contrats d'acquisition à long terme ainsi conclus visent l'acquisition de gaz naturel à des prix fixes, mais ne prévoient aucune clause financière destinée à fixer les prix. L'approvisionnement en gaz naturel n'est l'objet d'aucune couverture financière.

La Ville a adopté une Politique de couverture contre les fluctuations du prix des produits de base, le Règlement 2008-426, qui a été adopté par le Conseil le 26 novembre 2008.

Le Règlement 653/05 de l'Ontario confère aux municipalités les pouvoirs et la réglementation régissant les opérations de couverture des produits de base. Il ne contient pas une longue liste de prescriptions détaillées. Néanmoins, il demande au trésorier de la municipalité d'élaborer un rapport détaillé sur tous ces accords et de le présenter au Conseil municipal à chaque exercice financier, ou plus souvent si le Conseil le désire. Il préconise aussi un suivi régulier des accords visant les opérations de couverture.

Selon l'interprétation qu'en fait la direction, le Règlement 653/05 évoque l'utilisation d'ententes financières (*swaps*, options, etc.) dans le but de couvrir contre les risques de les fluctuations du prix d'un produit de base. À la lecture du

[2] Investopedia. D'autres sources définissent ce mot dans les mêmes termes.

Règlement, la direction comprend en outre que le rôle du trésorier, tel que décrit, se rapporte à l'utilisation d'ententes financières uniquement.

Conformément à l'interprétation, par la direction, du Règlement 653/05, la politique de couverture de la Ville contre les fluctuations du prix des produits de base (Règlement 2008-426) a été élaborée afin de régir le recours aux ententes financières dans le cadre de l'utilisation des instruments financiers. Cette politique contient les principales définitions suivantes : un accord sur la couverture des prix des produits de base est un instrument financier visant à fixer le coût ou à gérer les risques financiers associés à l'achat d'un produit de base. Une entente financière est un accord concernant la couverture du prix d'un produit de base, tels que les *swaps* et les contrats d'option d'achat. En bref, la direction ne croit pas que les activités de nature « prospective », en ce qui concerne les contrats de gaz naturel, relèvent des opérations financières de couverture et estime, à ce titre, qu'elles n'ont pas à respecter le Règlement. En revanche, nous sommes persuadés que les activités de nature « prospective » constituent, dans leur essence et leur objectif, des opérations de couverture puisqu'elles visent à la fois à obtenir un niveau de certitude du budget et à minimiser les variations défavorables des prix sur le marché des produits de base. Nous jugeons donc que les contrats d'opération à terme pour le gaz naturel constituent des opérations de couverture.

Portée de la vérification

La portée de la vérification comprend les pratiques de couverture directement liées aux activités d'acquisition de gaz naturel et de carburant diesel entreprises par la Ville.

Principales constatations

Les opérations de couverture du prix des produits de base visent avant tout à réduire les risques financiers en offrant une stabilité des prix et une protection contre les effets des conditions défavorables du marché.

Carburant diesel

La Ville achète du diesel principalement pour son parc de transport en commun (et notamment les autobus d'OC Transpo) et de véhicules municipaux. Elle consomme approximativement 48 à 50 millions de litres de diesel par an.

À l'heure actuelle, les opérations de couverture du prix du diesel font l'objet d'un rapport annuel au Conseil. Toutefois, la Ville ne compare pas le rendement avec les tarifs du marché pour vérifier si les efforts de couverture ont abouti à une baisse des prix. En étudiant l'efficacité des opérations de couverture conclues entre 2009 et 2010, nous avons relevé que si en 2009, la position de 267 000 $ s'est avérée généralement inefficace, pour 2010, les efforts de couverture ont été efficaces pour un volume estimé à environ 5 millions de dollars.

Gaz naturel

La Ville a signé un accord d'achats en commun, l'Ottawa Carleton Energy Purchasing Group (OCEPG), avec 17 entités participantes. L'objectif de l'OCEPG consiste à procéder à des achats stratégiques de gaz naturel sur le marché libre afin de permettre à ses membres de réaliser des économies. L'OCEPG comprend des conseils scolaires, mais pas des hôpitaux. En 2011, les achats en commun de gaz naturel ont totalisé approximativement 14,5 millions de dollars, dont 4,4 millions de dollars pour la Ville, soit 30 % de la consommation.

L'OCEPG a conclu plusieurs contrats à terme à un prix unitaire oscillant entre 14,63 et 31,40 cents le mètre cube. Pour les prochaines années, la Ville a pris des engagements à la hauteur de 3,46 millions $ pour 2013 et de 0,42 millions $ pour 2017. En avril 2012, le taux réel du marché s'élevait à 8,2 cent le mètre cube.

La direction a précisé que même si la Ville, par l'entremise de l'OCEPG, a signé des contrats d'approvisionnement en gaz naturel à long terme, à prix fixes, elle n'a conclu aucune « entente financière » visant à fixer les prix; par conséquent, ceux-ci ne sauraient être considérés, par définition, comme des couvertures financières visant l'approvisionnement en gaz naturel. Nous estimons que l'acquisition de gaz naturel destiné à être fourni à une date ultérieure, et à des prix définis, respecte l'objectif conceptuel des opérations de couverture et offre, par nature, des activités d'achat à terme qui exposent néanmoins la Ville à des risques importants et qui, dans ce cas spécifique, lui ont déjà coûté, compte tenu des tendances du marché actuelles, approximativement 2,1 millions de dollars entre juin 2011 et mai 2012.

Communication sur les états financiers

Nous avons remarqué que les Notes afférentes aux états financiers consolidés de la Ville ne contenaient, pour 2010 et 2011, aucune note concernant la divulgation des obligations contractuelles et les engagements que la Ville a pris en matière de gaz naturel. Nous estimons que, compte tenu de l'importance de ces opérations, on devrait accorder une certaine attention aux Notes afférentes aux états financiers.

Recommandations et réponses de la direction

Recommandation 1

Que la Ville vérifie si les opérations de couverture, ou achats à terme, concernant le gaz naturel respectent les objectifs inhérents de la municipalité, qui consistent à gérer et à diminuer les risques financiers liés aux opérations de couverture.

Réponse de la direction

La direction est d'accord avec cette recommandation.

L'évaluation de la présente stratégie de gestion et d'investissement énergétiques, mise au point en octobre 2008 (ACS2008-BTS-RPM-0041), sera réalisée concurremment à la préparation du rapport qui doit être préparé conformément à la réponse de la direction à la recommandation 3. Cette évaluation prendra en compte l'objectif visant à obtenir une certitude sur le plan budgétaire et à minimiser les fluctuations négatives du prix des produits de base. Cette recommandation sera mise en œuvre d'ici la fin du troisième trimestre de 2013.

Recommandation 2

Que la Ville fasse un suivi du rendement de toutes les opérations de couverture, effectue une comparaison périodique des tarifs du marché et présente un rapport au Conseil.

Réponse de la direction

La direction est d'accord avec cette recommandation.

La direction est d'avis qu'un rapport annuel devrait être suffisant compte tenu du fait qu'un programme de couverture, par nature, doit avoir un objectif à plus long terme. La présentation d'un rapport annuel est l'occasion de comparer les achats et les taux du marché d'une année à l'autre. Ainsi, il est possible d'établir un contexte plus clair facilitant les comparaisons, par opposition à une synthèse faite au moyen de plusieurs résumés répartis sur une année qui peuvent donner une analyse erronée des variations saisonnières.

Le rapport sera inclus dans le rapport d'achat annuel – Rapport d'examen des achats. Le rapport 2012 sera déposé au Comité et au Conseil au deuxième trimestre de 2013.

Recommandation 3

Que la Ville détermine, dans le cadre d'un nouvel exercice exhaustif, tous les risques associés à la stratégie de couverture et demande au Conseil l'autorisation de poursuivre les opérations de couverture.

Réponse de la direction

La direction est d'accord avec cette recommandation.

La direction préparera un rapport pour examen par le Conseil d'ici la fin du troisième trimestre de 2013. Il y aura alors cinq ans que le Conseil a reçu pour examen le rapport sur la stratégie de gestion énergétique (octobre 2008) concernant l'électricité et le gaz naturel ainsi que la Politique municipale de couverture contre les fluctuations du prix des produits de base (Règlement 2008-426 - novembre 2008).

Recommandation 4

Que la Ville, si elle continue les opérations de couverture, vérifie la méthodologie et les pratiques employées pour régir ces activités, en particulier celles qui concernent le gaz naturel.

Réponse de la direction

La direction est d'accord avec cette recommandation.

L'examen des méthodes d'approvisionnement concernant le gaz naturel permettra d'évaluer s'il est possible de mettre en place un processus qui permet de réagir adéquatement aux importantes fluctuations de prix de ce produit de base.

Cette recommandation sera mise en œuvre d'ici la fin du troisième trimestre de 2013.

Recommandation 5

Que le Service des finances joue un rôle de supervision plus actif dans les activités liées aux contrats à long terme de gaz naturel.

Réponse de la direction

La direction est d'accord avec cette recommandation. La mise en œuvre de celle-ci débutera au premier trimestre 2013.

Recommandation 6

Que la Ville, de concert avec le vérificateur externe, envisagent que, dorénavant les Notes afférentes aux résultats financiers consolidés indiquent les engagements qu'elle prend dans les contrats de gaz naturel à terme et divulguent les opérations de couverture visant le carburant diesel.

Réponse de la direction

La direction est d'accord avec cette recommandation et l'envisagera pour les états financiers pour l'exercice se terminant le 31 décembre 2012.

Économies Potentielles

Un moyen qui permettrait de faire des économies consiste à mettre un terme aux opérations de couverture associées au gaz naturel, afin d'empêcher de nouvelles pertes, estimées à approximativement 2 millions de dollars par an.

Commentaire global de la direction

La direction a demandé que le commentaire suivant de Travaux publics soit inclus dans cette vérification.

Travaux publics :

- La direction des Travaux publics n'est pas d'accord avec l'affirmation voulant qu'il soit possible de prévenir des pertes estimées à 2 millions de dollars par année en mettant un terme aux opérations de couverture associées au gaz naturel. La Ville a acquis des contrats à terme pour le gaz naturel jusqu'en 2017. Ces contrats devront être respectés et tout montant supérieur à la valeur du marché devra être acquitté.
- Depuis la préparation du rapport en juillet, le cours du gaz naturel au NYMEX a grimpé de 35 %. Cette hausse réduit considérablement la prime à payer par rapport au taux du marché. Elle démontre également la volatilité de ce marché.
- Comme il est énoncé dans le rapport, les changements technologiques ont permis de mettre en œuvre une méthode peu coûteuse d'extraire de grandes quantités de gaz naturel. La surabondance du gaz naturel sur le marché a contribué à la baisse de 65 % du cours des produits de base. Une telle chute du prix du gaz naturel n'avait jamais été vue en 100 ans d'existence de cette industrie. Les contrats de gaz naturel futurs seront fondés dans une large mesure sur une estimation du prix pour la date visée. La figure 2 indique que les acquisitions récentes de contrat à terme de gaz naturel prennent plus adéquatement en compte les prix courants pour le gaz naturel. Avant 2009, comme il est illustré dans la 4, la Ville payait habituellement un prix inférieur à celui du marché sur ces contrats de gaz naturel, ce qui lui a valu des économies de 1 500 000 dollars entre 2006 et 2008 par rapport aux prix d'Enbridge. La Ville ne devrait pas changer sa stratégie en raison d'un événement unique qui a très peu de chance de se répéter.
- Si la hausse des prix à long terme était plus élevée que prévu, la Ville paierait alors moins que les taux du marché. Par contre si les prix à long terme chutent ou que leur hausse est moins élevée que prévu, la Ville paiera un prix supérieur au taux du marché. La direction croit qu'une hausse importante des prix est beaucoup plus probable qu'une diminution des prix à un cours inférieurs aux prévisions. À long terme, la direction croit que le risque est minime de payer un prix plus élevé que le cours du marché pour les contrats à terme de gaz naturel.

Conclusion

Nous estimons que la Ville respecte actuellement ses objectifs, qui consistent à obtenir un degré de certitude du budget pour le gaz naturel et le diesel, même si, à notre avis, elle n'a pas réussi à faire face aux variations marquées des prix.

La direction a déclaré qu'elle ne croit pas que les opérations d'achat de gaz naturel à terme constituent par définition des opérations de couverture. Nous jugeons néanmoins que les pertes courantes de 2,1 millions $ enregistrées à ce jour, conjuguées à de futures pertes annuelles estimées à 2 millions $, découlant des ententes contractuelles conclues entre 2012 et 2017, soulignent la nécessité de réexaminer l'objectif de la Ville concernant les achats de gaz naturel ou d'autres produits de base à l'avenir.

Remerciements

Nous tenons à remercier la direction pour la coopération et l'assistance accordées à l'équipe de vérification.

1 INTRODUCTION

The Audit of Procurement Practices was included as part of the Auditor General's 2011 Audit Plan approved by Council on April 13, 2011. During the course of the Audit of Procurement Practices, a member of Council requested we review hedging activities undertaken at the City of Ottawa. This section was severed from the Audit of Procurement Practices for presentation on its own for clarity.

2 BACKGROUND

This Audit deals with the hedging activities directly linked with procurement activities undertaken by the City.

A hedge[3] is defined as *"making an investment to reduce the risk of adverse price movements in an asset. Normally, a hedge consists of taking an offsetting position in a related security, such as a futures contract."*

The City is actively involved in hedging activities for two commodities: diesel and natural gas.

Management has indicated that hedging the future price of diesel fuel is undertaken with the use of financial agreements (swaps). Long-term supply contracts are entered into for the supply of natural gas at fixed prices but there are no financial agreements entered into to fix prices. There are no financial hedges for the supply of natural gas.

The City has a Corporate Policy for Commodity Price Hedging: By-law 2008-426, which was enacted on November 26, 2008 by Council.

Ontario Regulation 653/05 provides the authority and regulations governing commodity hedging for municipalities. This is not a broad or detailed set of requirements. However, it does state that the treasurer of the municipality shall prepare and present to the municipal council once in that fiscal year, or more frequently if the council so desires, a detailed report on all of those agreements. It also calls for ongoing monitoring of hedging related agreements.

Management's interpretation of the Regulation 653/05 is that it relates to the use of financial agreements (swaps, options, etc.) for the purpose of hedging the price of a commodity. Furthermore, management understands that the role of the Treasurer, as described in this Regulation, pertains to the use of financial agreements only.

Consistent with Management's interpretation of Regulation 653/05, the City's Corporate Policy for Commodity Price Hedging (By-law 2008-426) was developed to govern the use of financial agreements in the context of the use of financial instruments. The policy includes the following key definitions: Commodity Price Hedging Agreement is a financial instrument to fix the cost and/or manage the

[3] Investopedia. Term is similarly defined in other sources.

financial risk associated with the purchase of a commodity. Financial Agreement means a commodity price hedging agreement including swaps and call option contracts. In short, Management does not believe that the "forward looking" activities, with respect to natural gas contracts are financial hedging activities, and therefore, in their opinion, the Regulation does not apply. We believe, however, that the "forward looking" activities are in essence, and in intent, hedging activities as they have the objective to obtain both budget certainty and to minimize the adverse commodity's market price fluctuation. In our opinion, the future contracts for natural gas are hedging activities.

3 AUDIT SCOPE AND OBJECTIVES

The scope of the audit encompassed hedging practices directly linked with procurement activities related to natural gas and diesel fuel undertaken by the City.

4 APPROACH

In order to conduct our audit work, we interviewed the key staff involved in the hedging of natural gas and diesel. For natural gas, we also interviewed some other institutional consumers as well as the major distributor of the commodity. In addition, we reviewed the City policy and historical data related to the purchase of both natural gas and diesel.

5 DETAILED FINDINGS, OBSERVATIONS AND RECOMMENDATIONS

A documented hedging policy, the Corporate Policy for Commodity Price Hedging: By-law 2008-426, was enacted on November 26, 2008 by Council. The primary objective for the commodity price hedging activity is to reduce the financial risk by providing price stability and protection against the effects of adverse market conditions. Furthermore, the policy states that financial agreements shall not be entered into for the purpose of speculative investing. Inherently, the purpose of the Policy is to address the (market) price instability of commodities which leads to budgeting challenges and associated financial burden when faced with an unanticipated, hence unbudgeted, increase in the price of necessary commodities.

The By-law also states, "The City Treasurer will have the overall responsibility for the commodity price hedging program which involve Financial Agreements and will have responsibility for directing/implementing the activities of the commodity price hedging program…".

5.1 Diesel Fuel

The diesel fuel purchased by the City is largely used by its public transportation fleet (such as OC Transpo buses) and its municipal fleet. The volume of diesel utilized by the City is approximately 48 to 50 million litres annually. The Treasury group is responsible in overseeing the hedging activity, whereby its senior investment officers are responsible for processing the hedging transactions for the diesel purchased by the City.

5.1.1 Hedge Coverage

Staff responsible for managing diesel hedging activities (Senior Investment Officer) stated that it is the City's target, or goal, to hedge approximately 60% to 85% of their diesel needs several months out in the future. This target provides for flexibility to take advantage of the short term favourable market conditions. In other words, the City does not hedge 100% of its forecasted volume in order to manage demand risk and prevent the possibility of entering into excess hedging contracts in the circumstance where the City requires less fuel than the forecasted requirements.

Actual historical hedging transactions, as a percentage of total diesel volumes purchased, are such that:

Fiscal year 2009/2010: 75% of diesel needs was hedged;
Fiscal year 2010/2011: 85% of diesel needs was hedged; and,
Fiscal year 2011/2012: 50% of diesel needs was hedged.

The City currently uses Royal Bank of Canada (RBC) and the Canadian Imperial Bank of Commerce (CIBC) to enter into hedging swap agreements. Swap agreements and the settlement processes are governed by standard International Swaps and Derivatives Association, Inc., (ISDA) which are signed by the City and the counterparty. Swaps function in the interbank market via a competitive bid and offer process. No fees or commissions are associated with these transactions.

5.1.2 How the Hedges are Managed

The price of diesel fuel is made up of two components: A variable component (i.e., the composite) and a fixed component. The fixed component includes items such as taxes (federal and harmonized sales tax), road fee, delivery costs, and a mark-up. Only the composite portion, the actual price of the commodity, is hedged.

5.1.3 Hedging Process

Two separate activities are involved in the purchase and hedge of diesel fuel:

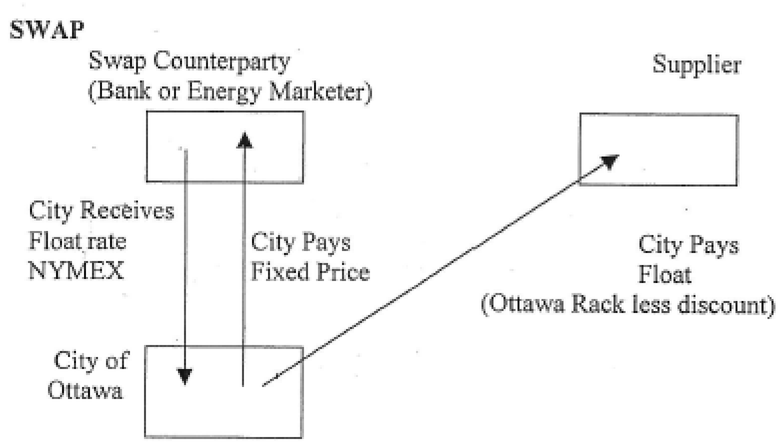
Purchase: The City undertakes a competitive Request for Tender (RFT) process to obtain its necessary diesel needs and its related delivery to its various desired locations in the City. Under the terms of these contractual agreements, the City of

Ottawa pays[4] the market price ("rack") less a discount (i.e., the net effect is the resulting "float" price). In other words, the City obtains the most competitive price from the supplier, given the market rates at the time of purchase.

Hedge: Future/Foreign Currency Swap Bundle: Once the volume of diesel fuel to be purchased is known, the City enters into a hedging transaction to obtain budget certainty with respect to the price of the fuel. To achieve this, the City enters into an agreement with a financial institution to obtain a predetermined volume at a fixed price. In exchange for the fixed price, the City receives from the financial institution the NYMEX (New York Mercantile Exchange) float rate. This Foreign Currency Swap/Future, which is undertaken as one package or transaction, is the insurance against price volatility. As a result of the package transaction, the City is not exposed to foreign currency exposure.

The process for the Swap is presented pictorially below.

Figure 1: Swap Process



For example,

- The City purchases the diesel, at float, for $0.56 per litre (via RFT process).
- The City has entered into a fixed cost contract with a financial institution to obtain a predetermined quantity at $0.52 per litre, in exchange for the NYMEX float rate.

[4] Management indicated that the City pays the supplier as per the following formula: weekly average price of Suncor/Petro Canada daily postings for the Ottawa Terminal Unbranded Rack Prices (weekly average of daily rack pricing from Saturday to Friday). The weekly buy price is effective on the Tuesday of the following week, (based on the previous week's averages) less 2.2 cents per litre discount, plus firm delivery charges as tendered per location, plus Federal Excise Tax, plus Provincial Road Tax, temperature corrected to 15 degrees Celsius, plus HST.

The transactional logistics, at a very basic level, of the above detail are such that:

- The City pays the supplier $0.56 per litre (plus the fixed component);
- The City pays the financial institution $0.52 per litre, i.e., the fixed contractual price;
- The City receives from the financial institution the float rate, i.e., $0.56 per litre; and,
- The out-of-pocket cost to the City is the fixed cost they have entered into with the financial institution or $0.52 per litre (plus the fixed cost component; taxes, delivery and mark up, which is not hedged).

A feature of a Swap is the ability of the City to unwind them which provides a risk management strategy in case of unforeseen problems such as a transit strike. A swap can be unwound with the swap counterparty at any time but there is a potential cost, or gain, based on prevailing market rates. For example if prevailing rates at the time of unwind in the above scenario were higher than $0.52, the City would be paid the present value of the difference. If the prevailing rate were lower than $0.52 the City would be required to pay the counterparty the present value of the difference.

5.1.4 Data Gathering in Support of Hedging

The team of senior investment officers in Finance responsible for the hedging have significant financial markets experience in both the private and public sectors. They are responsible for the compilation of the historical data and provide suggestions for the hedging requirements to the City Treasurer for approval.

The recommendations are based on historical data, linear forecasts model, moving averages, and spot forecasts. The data is taken from:

- NYMEX
- Reuters Data Feeds
- Bank Currency Outlook
- Bloomberg Heating Oil Outlook
- Bank of Canada Website Data Extract

The formula (i.e., a comprehensive and historical interpolation oriented spreadsheet) used by the City to determine their hedging position has been designed in-house by the senior investment officers along with help from bank industry contacts, consultants and fuel industry contacts.

5.1.5 Performance Assessment

There is annual reporting to Council for diesel hedging activities. However the City does not compare performance benchmarking against market rates in order to establish if the hedging efforts have resulted in prices lower than the rack prices. We reviewed the effectiveness of the hedge transactions entered into during 2009 and 2010 and observed that while 2009 resulted in an overall ineffective position of

$267,000, the results of 2010 hedges were effective (i.e., favourable) in the magnitude of approximately $5 million.

5.1.6 Participation with Other Municipalities

City staff believe that the City, given the volume of fuel purchased, is getting a substantial relief on the supplier profit margin. In other words, it is not believed a greater discount could be achieved through negotiation with a consortium of interested parties.

While it may be beneficial for smaller towns that do not have the infrastructure to monitor the hedging process, the benefits of a multi-city consortium to the City would be minimal and not offset the effort/cost required to actively participate or lead the consortium.

We were advised by staff that the following municipalities or organizations hedge their diesel fuel:

- City of Toronto [as of Spring 2012]
- BC Ferries
- Calgary
- Edmonton
- Montreal Transit Authority
- City of York

5.2 Natural Gas

The Corporate Policy for Commodity Price Hedging (By-law 2008-426) is applicable to natural gas purchases.

The City participates in a cooperative purchasing arrangement with 17 participating entities[5]: Ottawa Carleton Energy Purchasing Group (OCEPG). The objective of the OCEPG is to strategically procure natural gas on the open market to achieve savings for its members.

OCEPG includes school boards but not hospitals. Natural gas expenditures, in 2011, were approximately $14.5 million for the cooperative as a whole, of which the City accounts for approximately $4.4 million, or 30%, of the consumption (including $300,000 for natural gas purchased in the spot market).

OCEPG meets five times per year to set the internal price and the volumes for the future. Each entity is treated equally with one vote, regardless of the volume consumed. The City representative (Senior Project Manager, Engineering Systems, Public Works Department) has been the Chair of OCEPG since 2007. OCEPG has approached the local hospitals, but they are not interested at this point. The Chair of OCEPG believes that the cooperative is paying less than the hospitals.

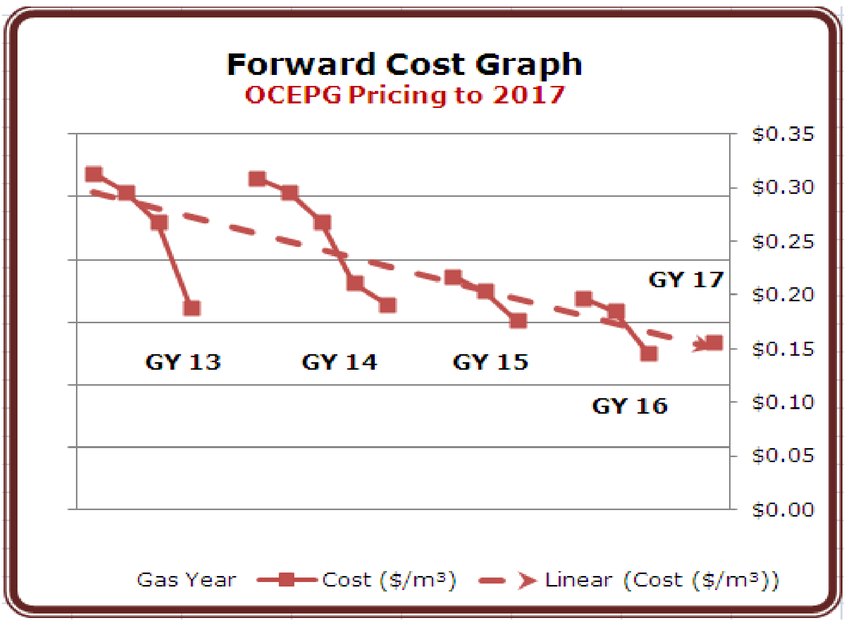
---

[5] Refer to the OCEPG Terms of Reference for a detailed listing.

The OCEPG has entered into several forward contracts at unit prices of 14.63 to 31.40 cents per m^3. Over the next several years, the City's committed portion is between $3.46 million in 2013 and $0.42 million in 2017.

Management believes that the following table illustrates that the unit cost at which future contracts were being purchased at has dropped significantly and demonstrates that purchases were undertaken at favourable prices given the market conditions at the time of the purchase.

Figure 2: Management Representation of OCEPG Forward Contract Costing



The Chair of OCEPG explained that the purpose of hedging is to provide a consistent price for budgeting in a volatile market to permit planning without having to go back to Council for additional funds while providing the lowest possible price (i.e., to obtain budget certainty). The Chair further advised that, to the best of his knowledge, some municipalities in Western Ontario were hedging, but not the City of Toronto.

The OCEPG has been in place since about 1988. In the late 1980's, the law changed whereby organizations were able to buy natural gas directly from suppliers.

Natural gas is currently purchased through brokers and delivered via Enbridge[6]. Brokers suggest when to buy based on NYMEX. OCEPG employs a formula that keeps about 15-20% of purchases for the spot market. They buy directly from producers such as Husky and British Petroleum (BP) in "blocks" based on price and opportunities. Currently OCEPG is buying volumes approximately three years in

[6] Of note, Enbridge cannot charge a profit on the price of natural gas only on the distribution cost.

the future. They have locked in 65% for 2014 but by then will have about 85% with balance reserved for open market (monthly contracts) as part of the hedging strategy.

Management indicated that OCEPG is currently buying volumes up to five years in the future. The OCEPG has, to date, locked in 72% of the natural gas requirements for gas year 2014. By the time 2014 arrives, this percentage may grow as high as 85%. The balance of the gas that is required will be purchased on the open market in renewable monthly contracts that are arranged by the broker. This is an important part of the process and may reduce the overall average price of natural gas purchases.

OCEPG pays their broker a monthly fee of approximately $8,500 per month, which includes the key task of paying for gas and billing the various entities which used to be very complex with previous supplier arrangements. Enbridge advises the broker on the volume of gas delivered to each entity for billing purposes. The Supply Branch has an observer on the Committee who advised that the contract with the broker was awarded competitively approximately twelve years ago.

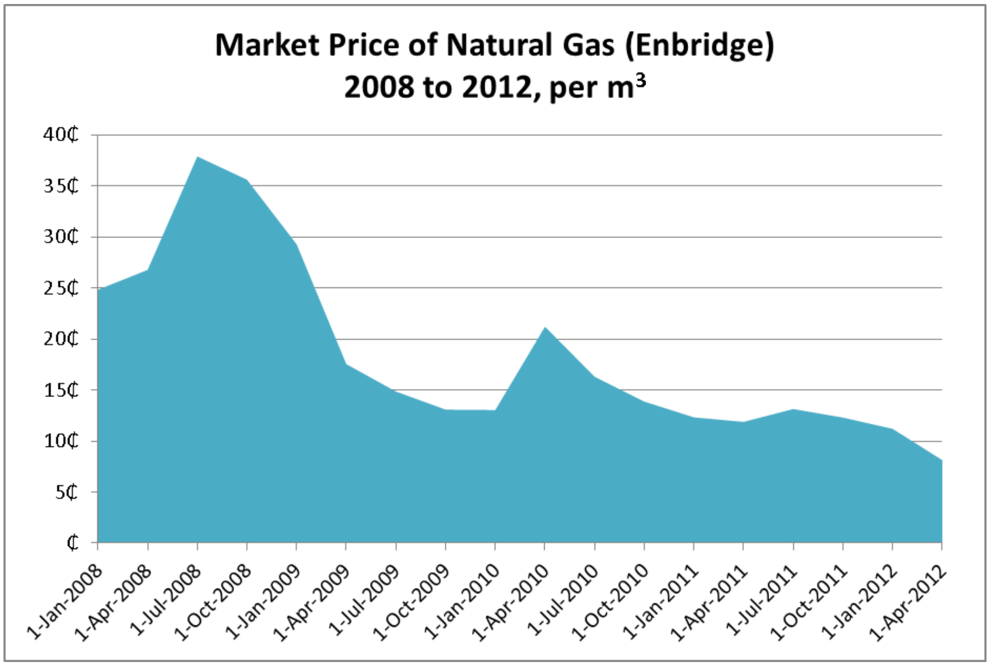
The Chair of OCEPG stated that given the Committee's level of satisfaction and the relatively low cost of the brokerage contract, it is not in the best interests of the Committee to go back to the RFP process.

We contacted the manager at the Ottawa Hospital responsible for natural gas purchases. He indicated that they chose not to participate as a member of OCEPG as they have volume of 10,000,000 m^3 and can deal effectively with suppliers. Additionally, they want control over their own contracts and a meeting process with 17 participants may not always be conducive to that.

The hospital has used the City's broker in the past but their contract ended in November and now they go strictly through Enbridge and obtain prevailing market price. The hospital, in contrast to the City of Ottawa, purchased all its natural gas at the current market price: Essentially they just buy directly from Enbridge where the only reductions are for delivery costs based on the volume. The hospital, in using this approach, is assuming the full risk of the volatility of the market. As a result of the decrease in the market price of the natural gas, the hospital is currently paying about $0.11 per m^3 in the open market.

They are closely watching the market and believe it will fall further and they may lock in for one or two years at a low price.

Figure 3: Market Price of Natural Gas January 2008 to April 2012



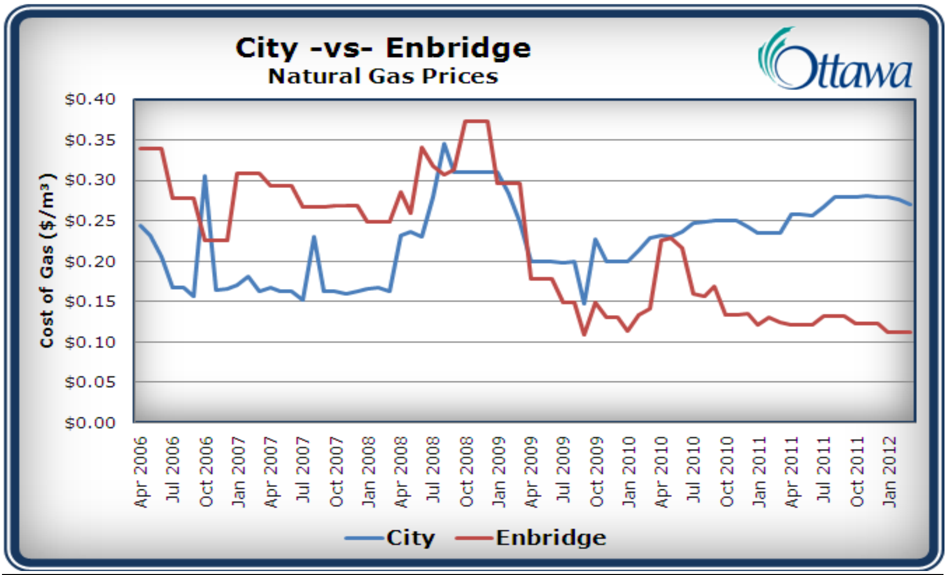
Management indicated that, in 2000, there was a series of events that led to the City paying a great deal more for natural gas than had been budgeted. At that time the OCEPG was purchasing natural gas for the City using only monthly contracts. There were no forward contracts for gas in their portfolio. Prices quadrupled and the account managers were required to approach City Council to obtain additional funding to cover the increased cost of natural gas.

As a result, the OCEPG started to use forward contracts to mitigate future gas spikes in pricing. This evolved to the purchase of annual contracts that go forward up to five years. In a gas market where the gas costs were always rising, this approach worked very well. Up to 2009, the City not only had price certainty, but paid less than if it had been using Enbridge to supply the gas.

This changed in 2009 with the development of an inexpensive way to retrieve large amounts of Shale Gas. Prices for natural gas started to fall dramatically when production capacity in Canada and the United States became much higher than consumption. Weighted average natural gas prices from Enbridge for the period April 2008 through March 2009 were $0.328 per cubic meter. They dropped to $0.116 a cubic meter for the period May 2011 through April 2012. That is a 65% reduction in price; a price-drop this significant has not been observed in the 100-year history of the natural gas industry.

Figure 4 found below, entitled: Management Comparison of City and Enbridge Natural Gas Prices, illustrates the prices the City paid against the price that Enbridge was charging congruently.

Figure 4: Management Comparison of City and Enbridge Natural Gas Prices



We contacted the Enbridge sales manager for the Ottawa Hospital in Toronto and he forwarded pricing for the last ten years by quarter (how and when prices are approved). He advised that the market rate is charged to all users regardless of volume; large users get a break on distribution costs not gas, which Enbridge cannot profit from by law. The current rate is 8.2 cents per m^3.

A recent article in the Globe and Mail (G&M)[7] outlined some anomalies in the current natural gas market. The G&M article's key points are noted below.

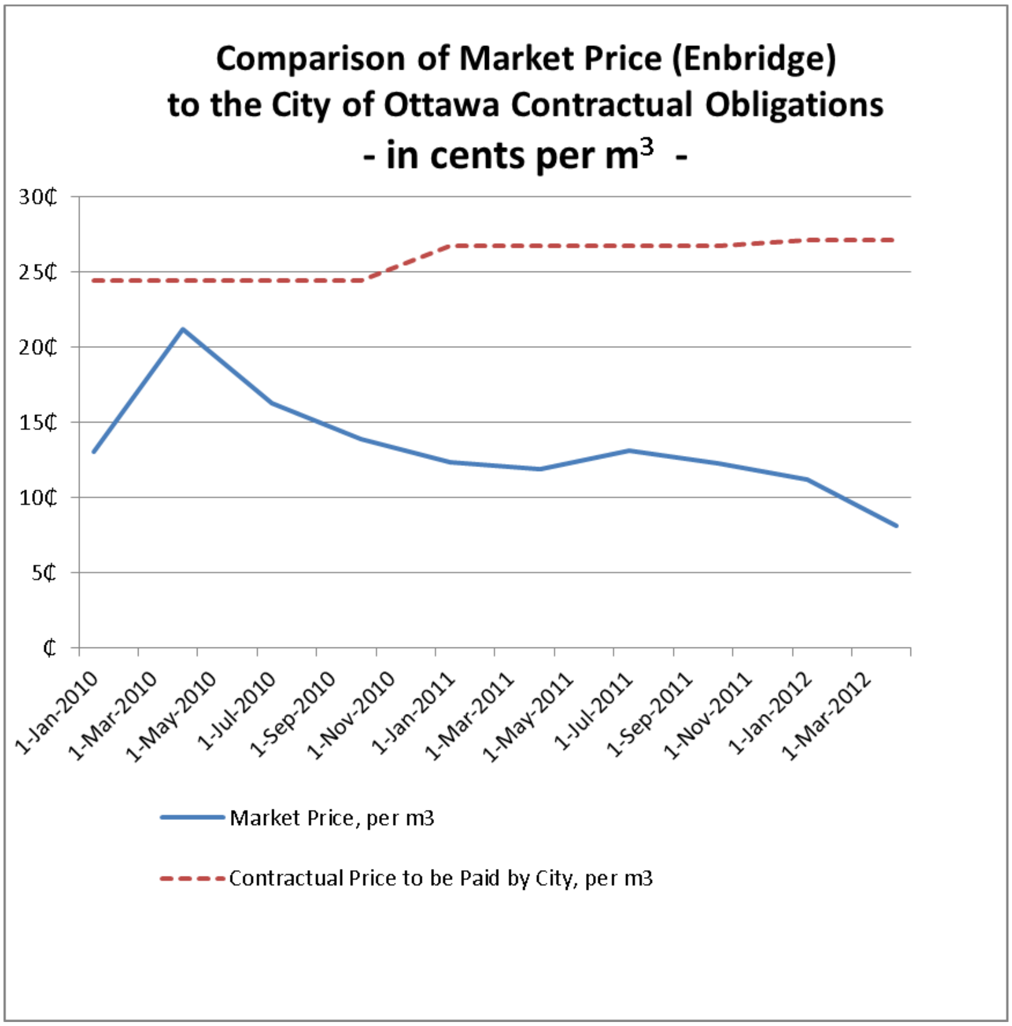
- As Canadian natural gas prices settle to low market prices not seen in 14 years, the energy sector has responded in a peculiar way: By producing significantly more of the commodity rather than reducing its production.
- Spot gas prices in Alberta dropped to levels not seen since 1998.
- One of the key reasons behind the extended slide in gas prices is a remarkable surge in supplies.
- The supply of gas is growing in part because many companies are still making money. New technology and a series of "market quirks" have rewarded many of those who continue pumping gas, even with prices in the basement.
- The most important factor is the chase for so-called "wet" gas, which is natural gas that surges to surface accompanied by liquid hydrocarbons like propane, butane and ethane. Those profitable liquids radically shift the dynamics in this market.

[7] Nathan Vanderklippe, March 13, 2012

- In oil terms, natural gas currently trades for under $14 a barrel. Propane, meanwhile, sells for around $50 a barrel; butane is roughly $90. At prices like that, natural gas becomes nearly an afterthought.
- Additionally, some companies are profiting because they are selling at prices a year out, which are much stronger.
- A price recovery may still be a long time in coming.

We were also advised by the Senior Project Manager responsible for Energy Management at the City that there is a known 300 year reserves of natural gas for all known applications.

5.2.1 Performance Assessment



Note: The above prices are for significant contracts entered into by the City of Ottawa. It does not reflect the price to be paid on all natural gas purchases.

Management indicated that during the period January 2008 and April 2009, the OCEPG outperformed compared to the Enbridge pricing at the time. Currently the position is reversed.

There is annual reporting to the Finance and Economic Development Committee for natural gas hedging activities. However, the City does not compare performance benchmarking against market rates in order to establish if the hedging efforts have resulted in price lower than the spot prices as it is not the purpose of the hedge. Nevertheless, we reviewed the contracts entered into and compared them against market rates in place at the time of purchase.

Management has also indicated that the Council-approved Corporate Utility Procurement Policy (electricity and natural gas) requires annual reporting which is presently being complied with.

Public Works (City of Ottawa) prepares an annual report on energy for their internal clients. This report compares the cost of utilities, including natural gas, to budget and to Enbridge pricing.

Management indicated that during the period June 2011 and May 2012 the City paid $2.1 million more than it would have for natural gas commodity if it was buying (spot) from Enbridge.

We compared the contractual price (the hedged price) to the market price as of December 31, 2011, as a performance benchmark, and, for the volumes contracted during the period of April 2012 to October 2012; the City is likely to find itself in an estimated unfavourable position of $2.23 million. This is based on the simple assumption that the December 2011 market price will not fluctuate significantly given the market conditions, as summed up in the Globe and Mail article, until at least October 31, 2012. As a worst case scenario, if the market price were to remain depressed for the next several years the City would continue to be in a similar unfavourable position as it has locked-in a significant portion of its natural gas purchases until October 2017 for prices ranging from $0.1463 to $0.314 per m^3. This could lead, if no positive corrections in market prices materialize, to annual losses of approximately $2 million in each of the next two years. The current market price of natural gas, as of April 1, 2012, is $0.081 per m^3.

During our audit work we contacted senior staff in the Treasury Unit within the Corporate Finance Branch (Treasury Manager) responsible for overseeing the hedging activities. Currently, they limit their activities to the acquisition of diesel fuel. It is their view that the processes related to natural gas acquisitions do not constitute "true hedging activities" and therefore are not actively involved.

Management has indicated that Treasury is able to provide specialized knowledge about the financial instruments available to "hedge", i.e., swaps, options, forwards, collars, etc. As the hedging of natural gas by the City does not involve the City directly entering into such agreements, Treasury's contribution is limited.

However, in our opinion, given the financial significance of the transactions, and their inherent risk, Treasury needs to play an active role in the hedging process.

OCEPG (of which the City is a significant player) has and continues to enter into natural gas contracts for delivery into the future. Therefore it is our opinion, that these activities constitute hedges, as they are undertaken at least in part to reduce the risk of adverse price movements and involve significant financial activities. Therefore, the Treasury Unit should play a key role in the acquisition of natural gas.

In our opinion the City is meeting both the Corporate and Provincial policies related to hedging for diesel purchases. However, for natural gas acquisitions the City does not meet: the Provincial Regulation 653/05 requirement for "ongoing monitoring of hedging related agreements", paragraph 6 (iii); or, the Corporate policy requirement for the City Treasurer to direct and implement the activities of the commodity price hedging program.

5.3 Disclosures in Financial Statements

We found that the City's Consolidated Financial Statements Notes for 2010 and 2011 did not contain a note to disclose the contractual obligations and commitments which the City had with respect to natural gas. We believe that this would be significant based on other disclosures in the Consolidated Financial Statement Notes and on the understanding that the City through OCEPG is buying volumes for up to five years in the future. As at December 31, 2011, the City held an estimated $15 million commitment balance in forward value contracts for the purchase of natural gas.

The following table reflects Management's estimate of forward value contracts:

Estimate of Natural Gas Forward Contract value by Financial Year

	Total Commodity only
2012	$4,530,642
2013	$3,856,631
2014	$3,215,669
2015	$1,804,545
2016	$1,437,649
2017	$401,693
	$15,246,829

Management has indicated that the planned total City heating costs for 2012 is $7.8 million. As shown in the table above, total five year commitments are $15 million, with largest annual amount at $4.5 million. In our opinion these commitments are significant when compared to the total heating costs the City pays.

Management has indicated that in the course of preparing the Financial Statements, Management considers materiality and risk in assessing what information is required for the Financial Statements reader to be fully informed. The City spends approximately $50 million per year on diesel fuel and a much smaller annual amount is spent per year on natural gas. Given that the annual cost of diesel fuel is material and involves the use of financial instruments, Management would be pre-disposed to inform the financial statement reader of the City's use of bank swaps to manage commodity price fluctuations. Bank swaps are not used in the case of natural gas. For purposes of assessing which commitments should be disclosed in the financial statements, management looks to materiality and whether commitments are in the normal course of business operations.

Through the annual Letter of Representation process of the external audit, Management attests to the following:

- **6 Purchase commitments**

1. *At the year end, the City of Ottawa had no unusual commitments or contractual obligations of any sort which were not in the ordinary course of business and which might have an adverse effect upon the entity (e.g., contracts or purchase agreements above market price; repurchase or other agreements not in the ordinary course of business; material commitments for the purchase of property, plant and equipment; significant foreign exchange commitments; open balances on letters of credit; purchase commitments for inventory quantities in excess of normal requirements or at prices in excess of the prevailing market prices; losses from fulfillment of, or inability to fulfill, sales commitments, etc.).*

The forward natural gas contracts are being used to acquire commodities in the normal course of business operations. Management does not believe that these contracts will have an adverse effect upon the entity, nor do they involve a high degree of speculative risk.

In OAG's opinion paying $2.1 million more than the market price for natural gas in one year has had an adverse effect on the entity and involves some degree of speculative risk.

In addition, Management has indicated that PS 3390.10 (c) does not apply since the percentage of annual natural gas purchase costs on the line item disclosure on the Statement of Operations is relatively small. Therefore, non-disclosure is appropriate given that they do not fit the criteria for disclosure under PS 3390.

The OAG noted that the 2010 and 2011 Financial Statements Notes disclosed other less significant amounts such as:

- Note 8 f) Net Long Term Debt – Net present value of bank swaps of $27,000 relating to diesel fuel hedges;
- Note 8 g) Net Long Term Debt – Annual payments of $1,463,000 in respect of a loan of $20,700,000; and,
- Note 14 i) Contingencies and Commitments – Commitments for the purchase of ice rental time in amounts of $3,000,000 and $10,858,000 set to expire in 2027 and 2034 in accordance with public-private partnerships.

Therefore, to be consistent with the nature of the other disclosures, we believe that these amounts relating to natural gas forward value contracts should be disclosed.

Management has indicated that the City's external auditors have reviewed the following information with respect to the forward natural gas contracts. They have provided the following comment: *"We've taken a look at the information provided and keeping in mind that we have not audited the details as of now, based on the information as provided by management, we do not consider the amount to be material to the financial statements."*

The City's Consolidated Financial Statements contain a Note to disclose the City's use of derivative financial instruments consisting of bank swaps to manage commodity price fluctuations by hedging specific quantities of diesel fuel purchases. For 2010, we found the Financial Statements Notes would have been overstated by $68,000 on a disclosure of $2,200,000 as amounts relating to expired contracts had been included. Expired contracts in the amount of $307,000 were excluded for 2011 but the change in methodology from 2010 was not reported in the Note. For 2011, we found a portion of the amount was in US dollars and had not been converted resulting in an understatement of $2,000 on a disclosure of $27,000. For 2011, the Financial Statements Notes described dates as expiry dates when they were in fact cash settlement dates (expiry date plus five business days). This was also inconsistent with the 2010 Financial Statements Notes. Management indicated these differences relating to diesel fuel would be checked in the future.

Recommendation 1

That the City evaluate whether the hedging, or forward buying, activities related to natural gas are meeting the inherent City's objectives of managing and mitigating financial risks associated with the hedging activities.

Management Response

Management agrees with this recommendation.

The evaluation of the existing Energy Management and Investment Strategy approved in October 2008 (ACS2008-BTS-RPM-0041) will be performed in conjunction with the report to be prepared in accordance with management's response to Recommendation 3. This evaluation will take into account the objective to obtain both budget certainty and to minimize the commodity's adverse market price fluctuations. This recommendation will be implemented by the end of Q3 2013.

Recommendation 2

That the City track performance of all hedges against market rates on a regular basis and report to Council.

Management Response

Management agrees with this recommendation.

Management believes that annual reporting would be sufficient given that a hedging program, by its nature, must take a longer-term view. Reporting annually provides an opportunity to compare purchases and market rates year-over-year. This provides a clearer context and allows for easy comparisons as opposed to using smaller snapshots within a year which may give misleading views of seasonal variation.

The reporting will be included with the annual purchasing report – Purchasing Year In Review. The 2012 report will be brought forward to Committee and Council in Q2 2013.

Recommendation 3

That the City, through a new and comprehensive exercise, identify all risks associated with the hedging strategy and request authority from Council to continue.

Management Response

Management agrees with this recommendation.

Management will prepare a report for Council consideration by the end of Q3 2013. This will be the five-year anniversary of Council's receipt of the Energy Management Strategy (October 2008) regarding electricity and natural gas, and the Corporate Policy for Commodity Price Hedging (By-law 2008-426 - November 2008).

Recommendation 4

That, if the City continue to hedge, the City should review the methodology and practices used to govern these activities, particularly as they relate to natural gas.

Management Response

Management agrees with this recommendation.

The review of the purchasing practices with respect to natural gas will assess whether a process can be put into place that addresses significant price movements in the price of the commodity.

This recommendation will be implemented by the end of Q3 2013.

Recommendation 5

That the Finance Department take a more active oversight role in the activities related to long-term natural gas contracts.

Management Response

Management agrees with this recommendation and will begin implementation in Q1 2013.

Recommendation 6

That the City consider, in conjunction with the external auditor, on a go forward basis, that the City's Consolidated Financial Statements Notes reflect the City's commitments relating to future natural gas contracts and record the disclosure regarding diesel fuel hedging.

Management Response

Management disagrees with this recommendation and will consider this for the Financial Statement for the year ending December 31, 2012.

6 AREAS OF POTENTIAL SAVINGS

One area that could lead to savings is to discontinue the hedging activities related to natural gas; to prevent further losses of approximately $2 million annually.

Overall Management Comment:

Management has requested that the following comment from Public Works be included in this audit.

Public Works:

- Public Works Management disagrees with the statement that we can prevent losses of approximately $2 million annually by discontinuing hedging activities related to natural gas. The City has purchased future natural gas contracts through 2017. Those contracts will have to be fulfilled and any premium over market values will have to be paid.
- Since the report was drafted in July, the NYMEX market price for natural gas has risen by 35%. This significantly reduces our expected premium over market conditions. It also demonstrates how fluid the market can be.

- As stated in the body of the report, changes in technology have resulted in an inexpensive method of retrieving large amounts of natural gas. The resulting glut of natural gas on the market has contributed a 65% reduction in commodity prices. The price drop in natural gas has never been observed in the 100 year history of the industry. Future gas contracts will be based to a large extent on what the expected price of gas will be at that time. Figure 2 demonstrates that recent purchase of future gas contracts better reflect current market prices of natural gas. Prior to 2009 as demonstrated in figure 4, the City typically paid less than the market rates with our natural gas contracts saving almost $1,500,000 between 2006 and 2008 over Enbridge prices. The City should not be distracted from its course because of a one-time event that is unlikely to be repeated.
- If long term prices go up more than expected the City will end up paying less than market rates. If long term prices drop or go up less than predicted the City will pay a premium over market rates. Management believes the chances of prices going up significantly more than expected is much higher than the rates ending up significantly lower than predicted. In the long-term, management feels that the risk of paying significantly more than market rate for future natural gas contracts is low.

7 CONCLUSION

We believe that the City is currently meeting its objective of obtaining budget certainty for natural gas and diesel fuel, but in our opinion is not successful in addressing significant price movements.

Management has indicated that it does not believe that the forward buying activities of natural gas are defined as hedging transactions. However, we believe the current $2.1 million loss experienced to date, combined with an upcoming estimated annual loss of $2 million resulting from contractual agreements entered into between 2012 and 2017 highlight the need to reinvestigate the City's objective with regards to procuring natural gas, or other commodities, well into the future.

8 ACKNOWLEDGEMENT

We wish to express our appreciation for the cooperation and assistance afforded the audit team by management.