SUBJECT: Electricity and Natural Gas Procurement (PW06110) - (City Wide)

RECOMMENDATION:

(a) That the City of Hamilton retains Aegent Energy Limited’s ongoing natural gas agency advisory services on a monthly retainer basis for a period of one-year, with a one-year renewable option, subject to review by the City’s Legal Division.

(b) That the City Of Hamilton provide formal legal notice to Local Authority Services Ltd. (LAS) that the City of Hamilton is withdrawing from the current Natural Gas Procurement Program (GASAMO).

(c) That Council authorize the City Manager or his designate to negotiate and execute Master Electricity and Natural Gas supply agreements directly with a minimum 2 to 3 major energy suppliers, subject to review by the City’s Legal Division.

(d) That the City Manager or his designate be granted the authority to execute all documentation in a form acceptable to the City Solicitor related to recommendations (a) and (c) above.

EXECUTIVE SUMMARY:

In 2005, the cost for electricity and natural gas for the City Of Hamilton corporately was over $17.9 million for electricity and $7.0 million for natural gas. Deregulation and general rising of energy costs on world markets have provided insight into how volatile and unpredictable energy prices can be. In Ontario we have a fully competitive natural
gas market and a hybrid electricity market. Both markets are heavily influenced by world events, availability of supply and neighbouring jurisdictions, in Canada and the United States. Energy supply and pricing influence factors are now often driven by factors beyond our provincial boundaries. An increase in electricity and natural gas cost of 10% based on our actual 2005 expenditures would increase our operational budget by approximately $2.5 million annually.

The City has taken steps to begin to manage our energy cost exposure, by establishing the Office of Energy Initiatives. Their role will be to assist in managing the City’s energy costs by implementing prudent commodity and cost management strategies and energy conservations measures on a corporate basis. This report’s recommendations are the first step for providing the Office of Energy Initiatives the authority to begin to manage the City’s overall electricity and natural gas commodity costs in a prudent and professional manner. This will provide the Manager of Energy Initiatives the authority to work with staff to ensure that we have proper legal contracts in place with key suppliers. It will also enable the Manager of Energy Initiatives to execute commodity purchases on the City's behalf with the aid of our energy advisors as energy market conditions dictate. In essence, this report will allow the City to better position ourselves to react to the ever changing energy market conditions and effectively manage our energy risks and exposures in a timely manner.

**BACKGROUND:**

It is important to the City to execute additional supply contracts with natural gas and electricity suppliers as quickly as possible, so that we can be positioned to capture favourable market pricing conditions as they arise. Missed opportunities in the energy market could result in hundreds of thousands of dollars that may have been otherwise avoided or saved.

On August 19, 2004, council approved a staff recommendation to negotiate Natural Gas Supply Agreements with a roster of (3) qualified natural gas suppliers. After extensive negotiations, only one of the suppliers could meet the requirements of the City’s legal agreement and the City executed a supply contract with one supplier. This means we are currently sole sourced with one natural gas supplier. We have not begun the process of negotiating supply agreements with electricity suppliers, but will need to in the near future.

Negotiating Master Energy Supply Agreements with suppliers will not guarantee any supplier that we as the City will procure our energy resources from these parties. What it would do is position the City to respond to quickly changing market condition for both gas and power. It would provide the City with a roster of qualified energy suppliers who can supply the City with energy commodity quotations under a competitive process. This will ensure we receive competitive pricing with the necessary legal, risk and financial contractual parameters explicitly laid out in advance.

We have purchased the majority of our natural gas supply needs, through till the end of October 2006. The City will need to purchase or “book” at least our remaining natural gas supply for the remainder of the year by late August or early September in order to avoid price increases due to market conditions. The reason being (subject to bad weather and hurricanes) as the gas market approaches November, pricing historically continues to rise. This is primarily because we are moving into the peak season for
natural gas consumption (winter). Ideally, we would like to have more than one supplier available to procure our gas needs for the remainder of the year and beyond. Strategically, the Office of Energy Initiatives would prefer to address the City’s gas needs over multiple terms e.g., some long term, some short term. This all hedges on our ability to contract with suppliers and market conditions. Buying gas under various terms will help protect the City from unforeseen significant increases in gas commodity costs.

For electricity, because we are not currently engaged under any Master Supply Contracts the City is unable to take advantage of the recent identified savings opportunities for our street lighting accounts. Removing these accounts from the province’s Regulated Price Protection Plan (RPP) to the spot market is estimated to save between $500,000 and $750,000 annually for the next couple years. Note, there is a one time exit fee that must be paid when any account moves out of the RPP rate structure. The estimate for the City’s street lighting accounts is $166,000 (this applies to 90% of our street lighting which is under one account). There are some legislative barriers that limit our flexibility, but we would be able to capture this opportunity under a retail supply contract with an electricity retailer. The retailer would manage the billing for our street lighting accounts and allow a spot market rate pass through, rather than a hedged rate. This is not a financial hedge. We are further reviewing options for removing the entire City portfolio from the RPP rate, but we will require the assistance of a reputable electricity agent or advisor for developing our electricity load profiles, review market and legislative barriers and identifying financial impacts. If the economics dictate that it’s an advantage for the City to remove our portfolio from the RPP, we would also look to hedge about 30% of our electricity supply needs. The remaining 70% or so is protected through price caps on OPG’s (Ontario Power Generation) regulated and non-regulated generation assets.

We have informally approached some retailers to assess the magnitude of these fees. The estimated cost for a retail supplier to provide this billing service for our street lighting is between $15,000 and $25,000 annually. This fee would be included in our monthly street lighting electricity bill. To remove our street lighting accounts from the RPP we must first execute Master Supply Agreements with a minimum 2 to 3 qualified electricity suppliers. The following tables outline the potential savings with our street lighting costs.

It is important to begin this process as soon as possible so that staff has the ability and authority to protect the City and tax payer's interest in managing our energy portfolio. Staff believes that time is of the essence and that it will take several months to initiate and execute Master Energy Supply Agreements with electrical suppliers. Staff has recommended we use the assistance of external legal expertise who has dealt with energy commodity supply contracts for municipalities. They would assist our Legal staff and the Office of Energy Initiatives in moving forward with the contracts to protect our interests in a timely manner. Energy supply contracts are very different from the type of contracts that most municipalities are familiar with. Natural gas supply contracts are different than power contracts. Natural Gas contracts are for physical supply, while electricity supply contracts are financial.

In August of 2004, we initiated discussions with Suppliers for natural gas, since then the market availability for reputable credit worthy energy suppliers, which can service the
needs of large commercial customers, has decreased. This is primarily due to political and regulatory uncertainty, particularly with the province’s electricity market.

It should be noted that once savings can be identified, staff will bring forward for Council’s consideration recommendations as to how the savings can be allocated. For purposes of this report staff is assuming that the costs associated will be funded from capital account 3540441495 (Energy Management).

**ANALYSIS/RATIONALE:**

**ENERGY PROCUREMENT**

**NATURAL GAS PROCUREMENT**

**Natural Gas - Agency and Advisory Services**

Aegent (not Agent) has played an active role in helping the City of Hamilton manage our natural gas portfolio since 2002. To date Aegent has been retained on an ad-hoc fee for service basis. Aegent Energy Advisors Inc. is a privately-owned energy advisory company, headquartered in Toronto. Aegent advises more than 50 large-volume users of natural gas and electricity on strategies to reduce energy cost, manage energy cost risk, and resolve the complexity of energy supply acquisition. Aegent is not an energy supplier and does not take title to the natural gas or electricity it assists their customer in procuring.

Staff is recommending we execute an agency contract to continue to work with Aegent on a retainer basis for the period of one year, with an option for a one year renewable. Aegent has provided quality advice and service to staff to help with their ongoing management of our natural gas portfolio. In the past using Aegent on an ad-hoc basis has placed limitations on the flow of information and reporting. With changing responsibilities and City personal (who did not have expertise in managing our natural gas portfolio) over the last 4 years, Aegent has been in the position of sometimes being unable to initiate the necessary measures needed, until given approval, which was sometimes delayed due to lack of knowledge in the area of gas management and quite often other job responsibilities. Now that the City has staff expertise onboard, having Aegent’s assistance on a retainer basis, along with their knowledge of the City’s natural gas accounts, will empower the Office of Energy Initiative’s to better manage our gas supply. With Aegent providing services under a retainer arrangement, staff will have ongoing reporting, market data and account management expert assistance, in a timely manner.

Engaging Aegent on a retainer would cost the City $2,350.00 per month ($28,200 annually) for the period of one-year, with 1-year an option to renew. Renewal will be contingent on continued performance as evaluated by the Manager of Energy Initiatives and the status of the LAS GASAMO project for municipal natural gas procurement. The previous annual limit to retain Aegent on an ad-hoc basis was set at $25,000 in 2004. The cost to retain their ongoing service with added attention and reporting is just slightly more.
LAS Natural Gas Procurement Program (GASAMO)

On July 14, 2005, Council approved the City of Hamilton’s participation in the Local Authority Services (LAS) Natural Gas Procurement Program (GASAMO), subject to legal review. LAS is a subsidiary company of the Association of Municipalities (AMO).

On February 8, 2006, staff executed an agency agreement between LAS and their current Agent. To date, the City has withheld formal participation in the program until staff expertise from the Office of Energy Initiatives joined the City.

With the recent hiring of the Manager of Energy Initiatives and discussions with Legal staff, it has come to light that continuing in the current LAS GASAMO program is unfavourable to the City at this time. The LAS GASAMO program is in a transition stage and is discontinuing their relationship with their current natural gas agent. A new agent has been retained, but will not be in a position to take over the management of the program until at least June 2007. LAS has outstanding issues that they need to resolve with their current agent on the existing program members behalf, before the transition to the new agent can be successful.

The Agency contract that City has executed is jointly held, between LAS and the current agent. Given we are contractually tied to the existing agent; staff believes it prudent to withdraw from the program at this time. The Manager of Energy Initiatives will continue to sit on LAS Energy Advisory Committee and has provided LAS staff advice on improving the structure of the program and suggestions for better protecting the programs members contractually. As it stands today, the LAS GASAMO program is not setup to benefit larger municipalities (like Hamilton). The LAS GASAMO program as structured today would be unable to supply about 40% of the City’s natural gas needs. This is because we have a different delivery rate structure with Union Gas for supplying our transit fleet. Therefore, the City would still need to independently manage our natural gas needs for Transit. Splitting our natural gas volume to join the LAS GASAMO program would also reduce our buying power in the marketplace. These are the reasons for staff recommending the withdrawal from the program for at least one-year.

ELECTRICITY PROCUREMENT

Electricity - Agency and Advisory Services

As the City has done with our natural gas portfolio for several years, staff is recommending that the City retain an agent to provide advisory services to assist the Office of Energy Initiatives in managing our electricity portfolio. Given the volatile nature of the electricity market and it’s constantly changing political and regulatory nature, ongoing external expertise is necessary to aid in developing electricity cost mediation strategies. The agent would also assist in providing ongoing information on regulatory and commodity market changes that may impact our overall cost of power.

Staff estimates the cost to retain a qualified agent is between $35,000 and $50,000 annually. The initial job of the agent will be to gather historical data for all of the City’s electricity accounts and to produce an aggregate hourly profile of our interval metered accounts and our NSLS accounts (Net System Load Shape or non-interval metered), and then our total combined hourly profile. The next step for the agent is to complete an analysis as to how our interval and non-interval metered accounts compare under the RPP rates verse historical spot market rates. Next, we’d examine the impacts of the exit
fees for removing the accounts from the RPP rate and look at the impacts of hedging a portion of the City’s portfolio under a financial swap. The hourly profile data is necessary to determine the size and type of electricity blocks we would want to consider procuring e.g. 7x24, 5x16, 5x8 and 2x24. Our first step is to address the savings opportunities with removing our street lighting from RPP, then review our interval metered accounts (e.g. water and waste water) and then our NSLS accounts.

Further explanation on potential electricity impacts and opportunities are outlined below.

Why Now for the City Electricity Supply?

There are several reasons to enable or prepare the City to effectively manage our electricity supply to allow us respond to changes so that we can better mitigate our exposure risk and look for further opportunities for cost savings. Some examples include:

Increasing Commodity Rates

The City’s electricity is currently supplied through the province’s Regulated Price Protection (RPP) Plan. Commodity rates under the RPP increased on May 1, 2006 from $0.050 and $0.058 per kWh (the $0.050 cents only applies to the first 750 kWh used per month) to $0.058 and $0.067 per kWh. This represents over a 13% increase in electricity commodity costs, to the City.

The Ontario Energy Board (OEB) has the option of changing this rate for November 1, 2006 (they can do this every six months). RPP rates are adjusted to reflect the actual cost of power. So in theory the RPP rate can go up or down to reflect the actual cost of power. With the cost of supply of new renewables and natural gas-fired generation gradually coming online and in addition the closing of Ontario’s coal-fired generation stations, rates are expected to continue to increase over the long term. The RPP rate plan is currently expected to remain in place until April 1, 2008, when eligibility will then be limited to residential consumers and consumers that are classified as “general service less than 50 kilowatt demand” by their utility.

Street Lighting Cost Reductions and RPP Rates

Staff has recently completed an analysis of our street lighting portfolio under the RPP rate. This analysis reviewed current RPP rates against recent historical Ontario electricity spot market conditions. Results indicate that if the City were to exit the RPP rate for our street lighting we would save between $500,000 and $750,000 annually. Please note, there are exit fees and legislative limitations associated with exiting the RPP rate. In the case of street lighting, the only current option we have to take advantage of this savings is to execute an agreement with an electricity retailer for billing services to allow use to get spot market rates. Local utilities, like Horizon are prohibited by current legislation from making this change on the City’s behalf. In terms of exit fees, the current estimate for our street lighting about $166,000 (90% of our street lighting portfolio), which would be more then covered based on our annual savings estimates. The reason for this savings is that the majority of our street lighting consumption is during off-peak hours. The rest of the City’s portfolio would not have near this magnitude of savings due to its peak and mid-peak consumption profile.

For the entire City portfolio preliminary exit fees are currently estimated to cost the City between $2 and $2.5 million. The value of the exit fee represents the current value of
the cost of power that has not been recovered through RPP rates. This difference is tracked (in something called a variance account) and incorporated into future Regulated Price Plan prices set by the OEB. For consumers that leave the Regulated Price Plan, that difference needs to be settled upon leaving.

The impact of exit fees will need to be considered as part of any analysis undertaken to exit the RPP rate for the rest of the City’s electricity accounts.

**Time of Use Rates**

Being contractually enabled with electricity suppliers will position the City to respond to issues such as the OEB’s currently approved RPP TOU (Time of Use) rate. At the current time Horizon Utilities has chosen not to adapt the rate. But if adapted, based on current TOU rates our commodity cost during peak hours would increase from $0.067 to $0.105 peak kWh, this is an increase of about 36% (this is the time peak for the City electricity consumption). Mid-peak pricing is currently at $0.075 per kWh, with off-peak RPP TOU rates at $0.035 per kWh.

**Negotiating Master Supply Agreements - External Legal**

On August 19, 2004, council approved a staff recommendation to negotiate Natural Gas Supply Agreements with a roster of (3) qualified natural gas suppliers, having met the City’s minimum requirements as stated in an RFP document. The term of these agreements were to run for a 3-year period commencing November 1, 2004. After extensive negotiations, only one of the suppliers could meet the requirements of the City’s legal agreement and the City executed a supply contract with one supplier. This means we are currently sole sourced with one natural gas supplier. We have not begun the process of negotiating supply agreements with electricity suppliers, but will need to in the near future.

Staff recommends, negotiating Master Supply Agreements with both natural gas and electricity suppliers using the aid of energy industry experienced external legal assistance. Using external legal expertise who are familiar in dealing with energy commodity contracts will assist staff in securing new supply agreements in a timely and efficient manner.

Executing proper legal and risk bi-lateral Master Supply Agreements with legitimate energy suppliers does not provide a guarantee to any of the suppliers that we must buy from them. The Master Supply Agreements are an enabler for the City to issue a request for quotation for supply from two or more suppliers to ensure that we have a fair and competitive process. The number of legitimate natural gas and electricity suppliers has diminished since the City’s last RFP in 2004. This has been primarily due to political and regulatory uncertainty, particularly with the provinces electricity market.

**Securing Timely Commodity Supply**

Similar to the previous authority council has provide for the Director of Fleet and Facilities or his designate, Staff propose that the City Manager or his designate (Manager of Energy Initiatives) be authorized to execute all of the City’s natural gas and electricity supply contracts and confirmations as required. By seeking pricing from qualified suppliers, with whom the City has in place executed Master Supply Agreement’s.
Energy commodity pricing can change quickly with market volatility, therefore suppliers cannot hold price for their clients without a significant price premium. Therefore, this authority is required so that we can secure favourable pricing as the market condition dictate.

**ALTERNATIVES FOR CONSIDERATION:**

Staff offers the following alternatives for consideration:

1. **The status quo** is not recommended given rising energy costs and our inability to react to changing markets in managing our energy budgets. This report outlines a proactive approach in mitigating and/or stabilizing increasing energy cost to the operating budgets.

2. Proceed with the implementation of the energy recommendations as outlined in this report.

**FINANCIAL/STAFFING/LEGAL IMPLICATIONS:**

**Financial:**

Please note that the actual and estimated costs of the services to be provided to the City are listed in the table below. To put this in a context a 1% increase in energy rates for the City Of Hamilton represents about a $250,000 increase in costs. We have already seen an increase in commodity cost for electricity this year of 13%. The ongoing assistance of energy agents or advisors is critical in assisting the City in managing or mitigating our cost exposure. External legal, with expertise in energy contracting is key in assisting City staff close to the loop on supply contracts with natural gas and electricity suppliers.

<table>
<thead>
<tr>
<th>Services Provider</th>
<th>Service</th>
<th>Fee’s / Costs</th>
</tr>
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<tbody>
<tr>
<td>Aegent Energy Advisors</td>
<td>Natural Gas Advisor</td>
<td>$2, 350 per Month ($28,200 per year)</td>
</tr>
<tr>
<td>To Be Determined</td>
<td>Electricity Advisor</td>
<td>Est. $34,000 to $45,000 per year</td>
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<tr>
<td>To Be Determined</td>
<td>External Legal</td>
<td>Est. $25,000 to $33,000</td>
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<tr>
<td><strong>Totals (Estimated)</strong></td>
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<td><strong>$87,200 to $106,200</strong></td>
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Note:

1. Costs for retailer suppliers services were not included as part of this table, since they would be blended in our overall street lighting bill.
2. The above fee’s or cost will be funded from existing budgets

**Staffing:**

There are no staffing implications as a result of approving the recommendation within this Report.

**Legal:**

Legal Services, Risk Management, Finance, Purchasing and Fleet & Facilities will have to work closely in order to determine the appropriate terms and conditions for any
agreement to be entered into between the City of Hamilton and our advisors or energy suppliers.

**POLICIES AFFECTING PROPOSAL:**

Purchasing Policy Section 4.11 (1)(f) outlines the Policy for Negotiations, where a single source for the supply of a particular Good and/or Service is being recommended because it is more cost effective or beneficial for the City.

**RELEVANT CONSULTATION:**

- Public Works Department
  - Fleet & Facilities Division
- City Manager’s Office
  - Legal Services
- Corporate Services Department
  - Budgets & Finance Division
  - Risk Management Section
  - Purchasing Section

**CITY STRATEGIC COMMITMENT:**

By evaluating the “Triple Bottom Line”, (community, environment, economic implications) we can make choices that create value across all three bottom lines, moving us closer to our vision for a sustainable community, and Provincial interests.

- Community Well-Being is enhanced. ☑ Yes ☐ No
  - Public services and programs are delivered in an equitable manner, coordinated, efficient, effective and easily accessible to all citizens.

- Environmental Well-Being is enhanced. ☑ Yes ☐ No

- Economic Well-Being is enhanced. ☑ Yes ☐ No
  - Investment in Hamilton is enhanced and supported through the efforts of reducing operating/utility costs.

Does the option you are recommending create value across all three bottom lines?

☑ Yes ☐ No

Do the options you are recommending make Hamilton a City of choice for high performance public servants?

☑ Yes ☐ No

The recommendations in this report demonstrate the City’s desire to set a high standard in attempting to maximize opportunities and to develop and endorse a sustainable energy management program.